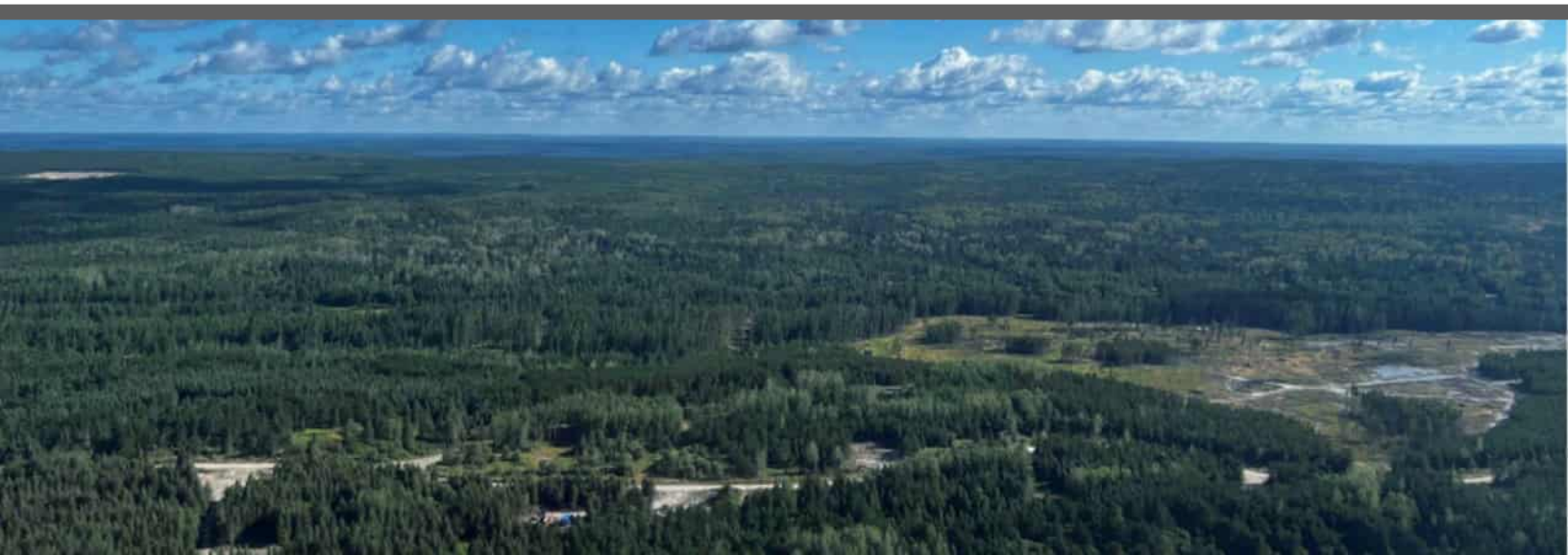
KINROSS Great Bear

Great Bear Gold Project
Impact Statement

Appendix C:

Record Of Engagement



Record of Consultation

Government
(Jan 1, 2022 to Jan 16, 2026)

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-00967	22/05/14	Ontario Ministry of Energy & Mines (MOEM)	Letter	Ministry of Mines acknowledgement letter as it relates to the Surface and Mining Rights Lease Request for 79 Mining Claims referenced within the written request. Note that the location and lease request is situated in the Dixie Lake Area, Red Lake Mining Division.	
C-01011	22/07/18	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Introduction of Great Bear Resource staff to MECP. General overview of project and anticipated plans discussed with MECP staff to ensure awareness.	Engagement not related to Project
C-00749	22/07/28	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER)	Letter	Letter sent to each new Minister of Northern Development and Mines to congratulate them on their appointment as part of the 2022 Ontario provincial election cycle.	
C-00750	22/07/28	Ontario Ministry of Natural Resources (MNR)	Letter	Letter sent to the Minister of Natural Resources to congratulate them on their appointment as part of the 2022 Ontario provincial election cycle.	
C-00751	22/07/28	Ontario Ministry of Energy & Mines (MOEM)	Letter	Letter sent to the Minister of Energy congratulating them on their appointment as part of the 2022 Ontario provincial election cycle.	
C-00755	22/08/02	Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Letter sent to the Minister of Environment, Conservation and Parks congratulating them on their appointment as part of the 2022 Ontario provincial election cycle.	Engagement not related to Project
C-00788	22/08/16	Ontario Ministry of Northern Economic Development and Growth (MNEDG)	Letter	Letter sent to the Minister of Mines congratulating them on their appointment as part of the 2022 Ontario provincial election cycle.	
C-04242	22/09/01	Ontario Ministry of Natural Resources (MNR)	Email	GBR reaching out to MNRF to inquire on dam operations at Snowshoe Dam. Great Bear sought records or an operating philosophy for those noted facilities in the region. MNRF acknowledged receipt and invited a call. MNRF also sent a links to real-time hydrometric data for stream gauges regionally monitored.	
C-00949	22/09/02	Ontario Ministry of Natural Resources (MNR)	In Person	MNRF shared information on how Snowshoe Dam is operated and provided documents to support operational flexibility. MNRF notes that the Snowshoe Dam is managed using a system of bands to guide operations. These bands were initially developed through a study conducted by Hatch, while an in-house engineer created an additional set known as "Kelly's Bands." Unlike Hatch's bands, Kelly's Bands place greater emphasis on fisheries, recreation, and tourism. Both sets of bands are considered when making operational decisions. Management of the dam focuses on staying within the designated red and blue bands, using current conditions, Environment Canada Stream Gauges, and forecasts to guide adjustments. Typically, logs are removed in March or April before the freshet, and water levels remain undisturbed after September or October to minimize any negative impacts on fish spawning. The dam also has an Emergency Preparedness Plan, which primarily involves increased monitoring if water levels reach 355.910.	
C-01935	22/09/07	ANA Ontario Ministry of Energy & Mines (MOEM)	Email	Great Bear notes that it is seeking guidance from Mines on what our next steps should be, in preparing to submit our exploration permit re-application. Great Bear wish to meet the needs of the Ministry guidance but also do not want to offend ANA in any way. Based on ANA's Chief reply's, we would prefer to respect his wishes and not engage further. Please advise if, from the Ministry's perspective, this is acceptable with regard to our re-application for our exploration permit. Great Bear notes that they intend to submit our re-application for early exploration on or by September 12, to ensure there is adequate time for review and approval prior to November 26 to avoid the potential for any work stoppages or potential delays to our existing drilling program.	Engagement not related to Project
C-04244	22/10/03	Ontario Ministry of Natural Resources (MNR)	Email	Introductory email to MNRF from GBR's Senior Environmental Coordinator. MNRF congratulated GBR on their recent open house, and MNRF offered to set up a call to discuss how the MNRF can support the Great Bear Project.	
C-00950	22/10/05	Ontario Ministry of Natural Resources (MNR)	In Person	Introduction meeting between Great Bear and local MNRF to provide update on Great Bear Project and plans. Included as part of this presentation is an overview of the vision of the Project, and anticipated Project timelines.	
C-00808	22/10/06	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	In Person	Introductory meeting during which a presentation was provided offering an overview of the Great Bear Project. The Minister and staff expressed their commitment to supporting the project and invited GBR to reach out regularly regarding permitting and other matters as needed to ensure the project remains on track.	
C-00820	22/10/06	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	In Person	GBR focused its discussions with Crown officials and representatives on key areas critical to advancing the Great Bear Project. These included permitting, where GBR sought government support to ensure a smooth and efficient regulatory process; energy, highlighting the project's significant energy needs and exploring potential co-funding opportunities for infrastructure; Indigenous engagement, briefing officials on progress and receiving valuable guidance from the Minister; and employment and local content, emphasizing local workforce development. The response from stakeholders was positive, with strong support for GBR's investment in Ontario. The company observed a clear willingness from government officials to actively assist the project, aligning with the Ford government's priorities. Notably, political leadership appears keen to oversee and steer priority projects rather than leaving them solely to the civil service. Next steps include planned ministerial engagements following year-end results and the maiden resource statement release, continued relationship-building within the senior civil service to support permitting, ongoing discussions with the Energy Ministry on power infrastructure, further engagement with the Minister on Indigenous relations, and internal strategy development for local content and housing in Red Lake and Ear Falls.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-00821	22/10/06	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER)	In Person	Great Bear meeting with Minster of Northern Development and Indigenous Affairs. Noted by Great Bear he is knowledgeable about the Great Bear Project, he shared his direct contact and advised working with Treaty 3 through the Chiefs WFN and LSFN while documenting outreach to ANA. He stressed early planning for local infrastructure, suggesting Ear Falls as a workforce hub over fly-in/fly-out. He highlighted opportunities in hiring locally due to high unemployment and encouraged prioritizing northern Ontario contractors. Lastly, he emphasized maintaining strong relationships and coordinating with stakeholders and government agencies.	
C-00822	22/10/07	Ontario Premier's Office (OPO) - Mining and Energy Policy	In Person	GBR introductory meeting with office of Premier of Ontario. Premier's office requested GBR stay in regular contact regarding permitting and other needs. The office can play a role in ensuring matters treated with priority by various agencies.	
C-00824	22/10/07	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with the Chief of Staff to the Minister of Energy that involved a discussion about energy needs and issues with current expansion model, no moratorium on natural gas self-generation for industrial development and the Ministry being open to continuing conversation and exploring if alternatives funding models / cost sharing would be possible. Ministry noted they are open to further discussions on alternative funding models and cost-sharing. GBR was asked to submit a letter outlining the project to support internal government discussions, with a draft expected later this week.	Confidential engagement
C-00835	22/10/28	Ontario Ministry of Energy & Mines (MOEM)	Letter	GBR provides Ministry of Energy with a formal letter in which GBR set out their intentions for the Great Bear Project and request for support from the Government of Ontario in advancing its endeavors. GBR notes that the Great Bear Project is expected to generate significant economic benefits, including over 600 permanent jobs and up to 1,000 during construction. To fully realize its potential, reliable and competitively priced power is essential, but the current infrastructure is insufficient. GBR is committed to environmental sustainability, incorporating an electrified fleet and emission reduction initiatives. The company is seeking government support to prioritize Northwestern Ontario for power reinforcements, explore shared cost allocation, and accelerate IESO study timelines. GBR is open to further discussions with ministry or IESO officials to advance these efforts.	
C-00855	22/11/02	Ontario Ministry of Energy & Mines (MOEM)	In Person	A meeting was held with the acting Assistant Deputy Minister and key senior staff to introduce GBR and the Great Bear Project as well as to discuss the goal of ensuring clear and timely permitting process. Mines staff provided key overview on constraints, and staff in which Great Bear will interact with. Mines staff provided overview on permitting considerations, and business supports.	
C-00868	22/11/02	Ontario Ministry of Natural Resources (MNR)	In Person	Introductory meetings were held with the Minister of Natural Resources and Forestry and key staff, to introduce GBR and the Great Bear project. Great Bear team provided an overview of the project, and to discuss opportunities for acquiring support during permitting.	
C-02538	22/11/04	Ontario Ministry of Natural Resources (MNR)	Email	Coordination and meeting request to give the MNRF and update on the Project with the VP of GBR. MNRF replied with some times that would work for the team.	
C-01469	22/11/07	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Letter	GBR providing a letter confirming their commitment to respecting the wishes of our Wabauskang First Nation partners request, confirming that we would comply with requests for time restrictions on surface explorations for specific cells.	Engagement not related to Project
C-01493	22/11/09	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with local trapline holder, who is a member of ANA. Trapline holder was provided tour of facility and discussed permitting submission related to ongoing exploration & AEX program. Great Bear and trapline holder held dialogue related to recent ANA election however he was not aware of election and explained he was not close with leadership of the community. Holder offered to take Great Bear staff into ANA community, if wanted.	Engagement not related to Project
C-00869	22/11/14	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD)	In Person	GBR met with Ontario Environment Minister and staff to introduce them to GBR and the Great Bear Project. The Minister was very supportive of mining and advocating for changes to federal permitting. Minister encouraged Great Bear to engage with MECP at an early stage.	
C-00870	22/11/14	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER)	Letter	Letter from GBR to thank the Ministry of Northern Development and Indigenous Affairs for their time, interest and offer of support.	
C-00871	22/11/14	Office of the Premier of Ontario	Letter	Letter from GBR to thank the Office of the Premier for their time, interest and offer of support.	
C-00872	22/11/14	Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Letter from GBR to thank the Ministry of Environment, Conservation and Parks for their time, interest and offer of support.	Engagement not related to Project
C-00873	22/11/14	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Letter	Letter from GBR to thank the Ministry of Natural Resources for their time, interest and offer of support.	
C-00874	22/11/14	Ontario Ministry of Natural Resources (MNR)	Letter	Letter from GBR to thank the Minister of Natural Resources for their time, interest and offer of support.	
C-00880	22/11/14	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with the Ministry of Mines regarding the Exploration Permit expiration. Great Bear and Crown staff discussed the need for approval from Mines. Mines noted they will be reaching out to Indigenous communities and noted the need for written notices from Wabauskang First Nation and ANA. Mines confirmed they know the project area is outside of ANAs traditional territory, but they were added to the consultation list because of the scope and trajectory of the project. GBR is proceeding to Advanced Exploration which will expand the radius of impact. Mines believes it is in GBR interest to keep ANA notified of exploration activities.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-00895	22/11/14	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	GBR and Mines phone call, Mines informed Great Bear the final decision on the permit will be made in consultation. If no temporary hold is enacted, the permit can be issued on Friday, November 25th. Before approval, Mines requires direct confirmation from First Nations on the circulation list that they have no concerns, which must be site-specific or impact treaty rights. Written notices are still needed from Wabauskang and ANA. While the project area is outside ANA's traditional territory, they remain on the consultation list due to the project's scope. Mines noted that they are satisfied with consultation efforts.	
C-00876	22/11/15	Ontario Ministry of Energy & Mines (MOEM)	Email	Response to outreach committing to a follow up regarding our exploration permit with Mines. GBR in initial outreach noted that the Company's exploration permit renewal expires on November 25th, and drilling must stop on November 26th without a new permit. This stoppage would negatively impact their workforce, contractors, First Nations partners, finances, and potentially require public disclosure. They've received support from two First Nations and a "no interest" message from a third. Following a meeting with the Ministry yesterday, the company is now "extremely concerned" that their permit may not be issued in time. They are requesting a call this week to discuss the situation.	Engagement not related to Project
C-00894	22/11/16	ANA Ontario Ministry of Energy & Mines (MOEM)	Phone Call	GBR call with Ministry of Mines regarding a letter to ANA First Nation asking if Great Bear could consider a “temporary removal” of the southeastern portion of the proposed permit area. There may be concerns from ANA related to a water source in this area that might need mitigation. The claims on hold could be addressed through consultation and later added as an addendum to the permit, once interests have been addressed. Letters of support for all claims were received from Wabauskang First Nation and Lac Seul First Nation.	
C-00879	22/11/17	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	Follow up with Ministry of Mines regarding the status of GBR Exploration permit renewal. Great Bear team briefed the Ministry on details of the application and implications to First Nations partners, employment and exploration program, if permit not issued on time. Ministry discussed the importance of ensuring the Crown meets its duty to consult. Great Bear explained that we had heard back from all Indigenous parties on the consultation list and provided this to the Mines department in Thunder Bay. Ministry of Mines committed to follow up early next week regarding the permit.	Engagement not related to Project
C-00881	22/11/21	ANA Ontario Ministry of Energy & Mines (MOEM)	Phone Call	Phone call to address outstanding concerns related to Exploration Permit. Noted by Mines that they have received a communication from ANA. Mines is reviewing and will issue a response seeking out site specific concerns. Mines asked if we could consider a “temporary removal” of the southeastern portion of the proposed permit area. There may be concerns with a water source in this area that might need mitigation. Due to limited time till permit expiry we could propose “temporarily removing” them from the permit, continue consulting on those cells and add back into the permit with an administrative amendment. This could remove a temporary hold on the entire permit. Crown officials reiterated that the duty to consult lies with the crown. To be able to issue the permit the crown needs to be comfortable that the duty to consult has been satisfied with all the impacted communities.	Engagement not related to Project
C-01785	22/11/23	Red Lake Municipality	Email	Discussion of possibility for donation on projects in Red Lake, cancelled due to prior contact.	
C-02554	22/11/23	Ontario Ministry of Natural Resources (MNR)	Email	Correspondence from MNRF following up from a previous meeting regarding permitting for the project, and special interests in parts of the project specifically surrounding other agencies such as the Ministry of Mines, Ministry of Environment, Conservation and Parks, MCM, Northwestern Public Health Unit, MTO, and local Municipalities. MNRF also supplied a comprehensive list of what needs to be considered for the project in regard to permitting, and project work. GBR thanked the MNRF for their response and for taking time to meet with them. The MNRF also provided further contacts, and requested the slide deck from the most recent presentation.	
C-00893	22/11/24	Lac Seul First Nations Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	Receipt of Exploration Permit via email from MINES to GBR, correspondence copied to representatives of WFN, LSFN, and ANA.	Engagement not related to Project
C-00884	22/11/25	Ontario Ministry of Energy & Mines (MOEM)	Email	Great Bear communication to Ministry of Mines offering its thanks for delivery of exploration permit for the Great Bear Project.	Engagement not related to Project
C-01009	22/11/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	In Person	Great Bear email communication thanking MECP for meeting, and allowing Great Bear to introduce and provide an overview of our Advanced Exploration Plans.	Engagement not related to Project
C-01776	22/11/29	Red Lake Municipality	Email	Discussion of the Christmas Parade or 2022 Parade of Light float sponsorship, and participation by Great Bear staff.	
C-01771	22/11/30	Red Lake Municipality	Email	Discussion of donation/sponsorship amount request with Red Lake Heritage Center, and inquiry on regional operation donation value.	
C-01764	22/12/05	Red Lake Municipality	Email	Red Lake Heritage Center provided answer regarding general information and donors to the Red Lake Regional Heritage Center to Great Bear staff.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02557	22/12/05	Ontario Ministry of Natural Resources (MNR)	Virtual	MNRF issues Great Bear options and provides thanks for discussion of road options. MNRF noted that proposed realignment of Tuzyk's Road and your safety concerns need to be taken into consideration. MNRF noted that GBR may prefer "Option 3" or "Option 4," there are two routes to apply for the project: Forestry Authorization Route – GBR can partner with the Sustainable Forest Licensee (Red Lake Forest Management Company) to apply for an amendment under their Forestry Management Plan, avoiding the need for another Environmental Assessment (EA). The level of Indigenous and stakeholder consultation depends on the amendment classification. Lands Authorization Route – You will need a Work Permit, a Forest Resource License (FRL), and a Memorandum of Understanding (MOU). The work permit requires a detailed application and engineering approval, with ministry review, potential site inspections, and an EA. The FRL will also trigger an EA and Indigenous consultation. The MOU would define maintenance responsibilities for the road. MNRF notes that additional permits may be required from agencies like the Ministry of Transportation (MTO) and the Ministry of Environment, Conservation and Parks. If proceeding with "Option 3," you must also work with MTO and the MNRF to amend aggregate pit boundaries. MNRF notes to Great Bear to reach out if we require additional assistance.	
C-01999	22/12/09	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Confirmation that the MECP has received the request for the Kinloch, Spirit and Sydney Ranges for Caribou Habitat baseline characterization assessment, along with a response to the MECP requesting the data needed for a Sensitive Data Licenses Agreement. Additionally, confirmation that the representative of Great Bear has completed the Natural Heritage Information Center Data Sensitivity Training has been confirmed.	
C-00906	22/12/14	Ontario Ministry of Energy & Mines (MOEM)	Email	Kinross CEO acceptance of invitation to join Minister's Mining Industry Council, with Kinross confirming point of contact.	
C-00907	22/12/15	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR submits Advanced Exploration Project Definition document and Notice of Project Status to the Ministry of Mines for the Great Bear Project. Communication between Mines staff and Great Bear on formatting considerations in support of submission.	Engagement not related to Project
C-00910	22/12/20	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	Quick call between Mines staff and Great Bear related to the status of the Early Exploration Claim Block exclusion. He told me that ANA requested further consultation materials and information on the specified claim blocks. Mines notes that those discussions will continue in the New Year at which point he will be able to provide a better update on the exclusion window.	Engagement not related to Project
C-00974	22/12/21	Ontario Ministry of Energy & Mines (MOEM)	Letter	Letter from Minister of Mines, regarding an invite to the first meeting of the Minister's Mining Industry Council (MMIC) issued to Great Bear noted that the meeting will be held on January 18, 2023.	
C-00932	23/01/11	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	In Person	GBR met with the Deputy Minister of Natural Resources and Forestry, to introduce her and her Assistant Deputy Minister to GBR and the Great Bear Project. Key areas of focus included support measures, Project overview, job creation, road access, Indigenous engagement, power and transmission, and lifespan.	
C-00933	23/01/11	Ontario Ministry of Energy & Mines (MOEM)	Virtual	GBR met with Assistant Deputy Minister at the Ministry of Mines as a follow up meeting to the October 2022 introduction. GBR continues to advance planning efforts and is following up on a commitment to provide a more detailed session on project timelines, permitting considerations, and complexities, particularly regarding ANA. A key milestone was reached in drilling, with positive results to be announced in February. Key roles within Mines were noted including early and advanced exploration lead, inter-ministry/agency liaison, and others supporting permitting, Indigenous consultation, and exploration. The early exploration permit process remains in progress, with ANA Chief requesting additional time. The Ministry is taking a balanced approach, ensuring consultation obligations are met while moving forward with issuance. A draft letter is expected next week, allowing for an additional two-week comment period. If no feedback is received, the Ministry will assess the consultation record. GBR can support by sharing any relevant communications. ANA concern relate to environmental impacts, including mercury poisoning, and treaty harvesting rights. For mining leases, no issues have been raised, and First Nations have been given 60 days to respond, followed by a 30-day reminder. Action may be taken in February based on any concerns raised, and lease prioritization will be considered. For advanced exploration, permitting remains in progress, with the Ministry awaiting feedback from ANA. While consultation requirements remain flexible, additional clarity on discharge may be requested. Environmental assessments are not individually required, and Great Bear will engage with MECP once project details are finalized. The Ministry supports a streamlined "one-window" approach with Mines as the lead.	Engagement not related to Project
C-04245	23/01/12	Ontario Ministry of Natural Resources (MNR)	Email	GBR touching base with the MNRF to discuss the work being done supporting the evaluation of the Chukuni River. GBR invited the MNRF to meet to further discuss this and also the outstanding Snowshoe dam reports. MNRF followed up regarding availability for a meeting.	
C-00934	23/01/16	Ontario Ministry of Energy & Mines (MOEM)	Email	Mines inquiring about the timing for geochemistry data supporting Advanced Exploration permitting efforts. GBR notes that the static testing report which includes the AEX samples is currently scheduled for issuance in draft to GBR end of February.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-00935	23/01/16	Ontario Ministry of Energy & Mines (MOEM)	Email	Mines requested a Priority List of Lease Applications to support advancement of applications. Noted leases are as follows: Great Bear Project Lease Application Priority Priority 1 – MIL 14-2 05-21 Priority 2 – MIL 14-2 11-22 to 15-22 Priority 3 – MIL 14-2 16-22	
C-00936	23/01/16	Ontario Ministry of Energy & Mines (MOEM)	Email	Request for Information regarding AEX PD Review, and response issued by GBR to Mines staff. GBR confirms that PAG will be present in the rock extracted from AEX activities, with a current assumption of 40% PAG, though the geochemistry report is expected to refine this ratio. As a precaution, all rock is being treated as PAG for planning purposes. Contact water is planned for discharge to the Chukini River, with Dixie Creek as a secondary option. In the absence of the geochemistry report, Great Bear seeks confirmation on whether this information is sufficient for project and consultation scope review or if a discussion is needed to expedite key report sections to avoid delays.	Engagement not related to Project
C-00937	23/01/17	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR thanking the Ministries for their open discussion in the January meeting and GBR looks forward to further news about the status of the carve-out of the exploration license. Great Bear provides copy of previous presentation noting considerations around Indigenous consultation, key concerns with overview of Advanced Exploration approach and pathway.	Engagement not related to Project
C-00938	23/01/17	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	GBR thanking the Ministries for their open discussion in the January meeting and GBR looks forward to further news about the status of the carve-out of the exploration license.	Engagement not related to Project
C-00939	23/01/17	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Response to outreach and follow up from previous engagement with Great Bear from MNRF.	
C-01010	23/01/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Request for Review of Baseline Ambient Air Quality Monitoring Program by MECP. Great Bear notes reasoning and seeking input on approach.	Engagement not related to Project
C-00943	23/01/20	Ontario Ministry of Energy & Mines (MOEM)	Email	Follow up to Monday Jan 16 email with GBR requesting confirmation that the review of the AEX PD and scope of consultation is advancing, noting previous request from Mines staff related to PAG potential of AEX program.	Engagement not related to Project
C-00947	23/01/26	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR sending Ministry of Mines the draft Project Definition, identifying Chukini River as the discharge receiver.	
C-02168	23/01/30	Ear Falls Municipality	Email	Establishing contact and initiating a discussion with the Township of Ear Falls regarding the sponsorship of the upcoming annual Party in the Park Canada Day event.	
C-02172	23/02/01	Red Lake Municipality	Email	Sponsorship request from the Municipality of Red Lake to attend the PDAC conference in Toronto.	
C-00962	23/02/06	Ontario Ministry of Energy & Mines (MOEM)	Email	Email to Mines requesting update on Claim Block Exclusion. Great Bear was earlier notified a decision would be made by Feb 3, 2025 by Mines.	
C-00966	23/02/07	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR informed the Ministry of Mines that a request for survey instructions sent to the Office of the Surveyor General.	
C-04255	23/02/07	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting MNRF guidance on how to proceed regarding fixing flooded and damaged culverts. GBR inquired if a new permit is needed to fix these and to continue to have these culverts in place.	
C-00973	23/02/08	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Great Bear acknowledges ANAs request for a timeline extension on Exploration Permit PR-22-000284 and reaffirms the importance of the excluded claims. While supporting meaningful consultation, Great Bear does not oppose the extension, provided it remains reasonable and does not unduly impact its interests. If granted, Great Bear requests prior written notice and regular updates from the Ministry on any communications from ANA.	Engagement not related to Project
C-02179	23/02/08	Red Lake Municipality	Email	Correspondence confirming the attendance of citizens and Red Lake Municipality members at the Red Lake Open House on February 22nd, 2023, and the Ear Falls Open House on February 23, 2023.	
C-02180	23/02/08	Red Lake Municipality	Email	Confirmation email that the posters for the upcoming Ear Falls and Red Lake Open Houses has been printed and is ready to be picked up.	
C-02561	23/02/08	Ontario Ministry of Natural Resources (MNR)	Email	GBR response to MNRF's statement regarding the requirement for new work permits for culvert work. GBR thanked the MNRF for their informative reply and sent the Work Permit Application for the replacement of the 4 culverts. GBR stated that they will be working with FN partners to ensure they are aware of the request.	
C-04254	23/02/08	Ontario Ministry of Natural Resources (MNR)	Email	GBR sending MNRF the Work Permit Application for the 4 Culvert Replacements. GBR states that they will be discussing the proposed work with local FN Partners to ensure they are aware of the request, and further clarifies that the culverts are already in place, and the work is just to ensure they operate as intended.	
C-00968	23/02/09	Ontario Ministry of Energy & Mines (MOEM)	Email	Lease File MIL 14-2 16/22- Acknowledgment Letter from the Ministry of Mines.	
C-02193	23/02/09	Red Lake Municipality	Email	Response from the Mayor of Red Lake thanking GBR for sending the morning press release information and slides for the Great Bear Project Update in anticipation of the live event.	
C-00972	23/02/13	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Sharing public announcement of initial resource statement at Great Bear.	MOEM_021323_02.pdf

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-00977	23/02/14	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Email confirming timeline extension for ANA requested additional time to review the PR-22-000284 permit, specifically the 44 claims that were removed for further consultation. In response to the request, MINES sent a letter today (February 14th) requesting substantive comments regarding potential adverse impacts from the proposed exploration activities for this permit with comment period close on February 28, 2023. MINES will be in a position to make a decision on amending the permit to include the additional 44 mining claims, taking into account any specific comments received by that date.	Engagement not related to Project
C-01213	23/02/22	Mining Association of Canada	Email	Summary of pre-engagement session with MAC Indigenous Relations Committee and NRCan related to the United Nations Declaration on the Rights of Indigenous Peoples Act Action Plan. Noted that comment and response to be issued by Committee prior to end of March.	
C-01227	23/02/22	City of Greater Sudbury	Email	Follow-up with OMA Communications Committee with regards to PDAC's Sudbury Mining Cluster Reception.	
C-02204	23/02/23	Ear Falls Municipality	Email	Sponsorship request for the 2023 Winterfest from the Township of Ear Falls.	
C-01005	23/02/24	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call received from MNRF requesting clarification on PEA acronym from Open House Presentation. Thought it was an acronym for Provincial Environmental Assessment. Email followed with up to ensure reference to PEA on slide 27 was understood to mean Preliminary Economic Assessment.	
C-01007	23/02/24	Ontario Ministry of Natural Resources (MNR)	Email	Response to MNRF regarding consultation with Lac Seul First Nation and Wabauskang First Nation on Work Permit for culvert replacements within the Great Bear Project Site. Great Bear provided overview of dialogue in support of Work Permit application to MRNF.	
C-01209	23/02/24	Mining Association of Canada	Email	Mining Association of Canada providing Great Bear with the Local Procurement Checklist to Support Indigenous Procurement Activity.	
C-02207	23/02/24	Ontario Ministry of Natural Resources (MNR)	Email	Communication from the MNRF that they will be unlikely to attend the upcoming community open house, MNRF requested a copy of the presentation in order to review it and file the presentation with the MNRF's records. MNRF also joined the official project mailing list.	
C-02210	23/02/24	Ontario Ministry of Natural Resources (MNR)	Email	Sharing of the Red Lake Town Hall presentation with the MNRF for their information and records.	
C-02211	23/02/24	Ear Falls Municipality	Email	Communication and thanks provided to Township of Ear Falls related to Open House event held on March 1st. Noted by Township leadership several suggestions for the set-up for the next meeting and working to further a partnership.	
C-02206	23/02/27	Red Lake Municipality	Email	Thanking GBR for the sponsorship and asking if GBR can send a logo so they can acknowledge GBR as a sponsor for the PDAC booth.	
C-02221	23/03/02	Ear Falls Municipality	Email	Responses and thanks for further information being sent as follow-up to the Ear Falls Presentation held at the Royal Canadian Legion. Follow-up from Ear Falls Township regarding scheduling a presentation for the council and providing a mine site tour.	
C-01021	23/03/06	Ontario Ministry of Natural Resources (MNR)	In Person	Second meeting with Minister Graydon Smith and his staff to provide an overview of Great Bear's Initial Resource Statement and to walk the Minister through the project's current status (FNs) and upcoming activities.	
C-01023	23/03/06	Ontario Ministry of Energy & Mines (MOEM)	In Person	Minister of Mines held a mining committee meeting during the week of PDAC to discuss industry concerns. GBR raised the concern of unreasonably long wait times for receiving a consultation list.	
C-02209	23/03/06	Ear falls Municipal Council	Email	Sponsorship request for the Red Lake / Ear Falls U11 AA Hockey Team.	
C-01024	23/03/07	Ontario Ministry of Northern Economic Development and Growth (MNEDG)	In Person	Introductory meeting with the Minister to briefly speak on the Great Bear project and to update the Minister on the project's status and upcoming milestones.	
C-01020	23/03/08	Red Lake Municipality	In Person	The Municipality of Red Lake visited the Kinross Gold office in Toronto for an introductory meeting with senior leadership. The purpose of this meeting was to extend the positive relationship between Red Lake and GBR team, to discuss the municipality's objectives and to briefly cover how GBR and Red Lake can support each other going forward. The Municipality of Red Lake outlined their key objectives in Red Lake, including securing federal funding for a net-zero hockey arena and culture center and obtaining 190 acres of Crown land for commercial and residential development. The land acquisition has faced opposition from Lac Seul First Nation and Wabauskang First Nation, who claim entitlement to 1,000 acres under Treaty Land Entitlement. While Crown land approvals typically take 7-9 years, Minister Rickford has placed Red Lake in a pilot program to accelerate the process. Discussions included how GBR and the how Great Bear Project could support a mutually beneficial resolution with Lac Seul and Wabauskang, as well as help reduce fly-in/fly-out needs by housing employees locally. Red Lake CAO requested advocacy to keep Red Lake's fire base local, as it may be transferred to Lac Seul following archaeological findings. Additionally, the Red Lake mayor highlighted plans for a potential all-seasons bridge to improve regional connectivity and confirmed that while Red Lake has sufficient power, the town is willing to support grid expansion for GBR's future needs.	
C-01022	23/03/08	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with Ministry of Mines to discuss the Canadian Government's Resource Revenue Sharing program, which is set to expire in 2023. The MINES team provided an overview of how the Resource Revenue Program distributes funds and it's impact on mining companies.	Confidential engagement
C-02231	23/03/08	Red Lake Municipality	Email	Invitation to upcoming visit of the Parliamentary Assistant within the area to announce NOHFC funding for projects in the area.	
C-01027	23/03/09	Ontario Ministry of Natural Resources (MNR)	Email	Follow up sent to MNRF, summarizing the timeline to obtain the mining leases, which are of immediate priority for the Advanced Exploration permit.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01028	23/03/10	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR follow-up to PDAC conversation with Ministry of Mines to request an update for AEX consultation list and to request a catch-up meeting.	Engagement not related to Project
C-04247	23/03/10	Ontario Ministry of Natural Resources (MNR)	Email	GBR providing the MNRF with the confirmation of DFO review for the proposed replacement of 4 culverts. MNRF provided the completed work permit. GBR confirmed that they will be getting started on this and will properly notify the MNRF when the replacement work officially starts.	
C-01031	23/03/13	Ontario Ministry of Energy & Mines (MOEM)	Email	Virtual Inter-Agency Meeting for AEX Permitting on April 4, 2023 at 1:30pm. Also GBR following up on obtaining a Consultation List and Claims Block Exclusion.	Engagement not related to Project
C-04224	23/03/17	Ontario Ministry of Natural Resources (MNR)	Email	GBR providing an update regarding the boat purchased, as it was not the same boat that GBR thought they were getting originally and mentioned in the permit. GBR inquired if there is any changes to the permit needed. MNRF replied that they will mention this to the review team, and that this will be finalized shortly.	
C-02246	23/03/20	Ear Falls Municipal Council	Email	Clarification on who to send the NWO Mystix Sponsorship Cheque to.	
C-02251	23/03/20	Ear Falls Municipality	Email	Ear Falls Township request for Sponsorship for both the Family Safety Night and their Canada Day Event.	
C-01037	23/03/21	Ontario Ministry of Energy & Mines (MOEM)	In Person	GBR met with the Ministry of Mines to request an update on our Early Exploration claims that remain blocked and to inquiry about when we can expect to receive a consultation list for the Advanced Exploration.	Engagement not related to Project
C-01306	23/03/24	Ontario Ministry of Transportation (MTO) TBT Engineering	Email	MTO's aggregate permit plans to accommodate the Tuzyk's Road realignment, including additional information and documentation.	
C-01298	23/03/29	Red Lake Municipality	Email	Arranging a meeting to discuss the current status of our project and plans for potential worker accommodation. Additional items of information request included: · Municipal plans for real estate over coming years · Any new motels planned, other rentable accommodations · Future Infrastructure Plans (waste water, drinking water) · Capacity of current infrastructure · Area contacts for accommodation.	
C-01300	23/03/29	Red Lake Municipality	Email	Scheduling meeting with mayor of Red Lake and GBR	
C-01047	23/03/30	Ontario Ministry of Natural Resources (MNR)	Email	Correspondence received from MNRF regarding an update on the Mining Survey Instructions for the Great Bear project.	
C-02171	23/03/31	Ontario Ministry of Energy & Mines (MOEM)	Email	Completed sponsorship form from the Canadian Institute of Mining Red Lake Branch. Further emails confirm that CIM will be receiving support from GBR, and thanks from CIM for GBR's support.	
C-02273	23/04/03	Ontario Ministry of Energy & Mines (MOEM)	Email	Invitation from the Ministry of Mines for the Thunder Bay Mining Day Organization Committee. Mining Day will be held on June 17th, 2023, and GBR has been invited to be an exhibitor.	
C-01301	23/04/06	Red Lake Municipality	In Person	Red Lake Fact finding meetingto discuss housing, events, and forest fires GBR provided a support letter for Red Lake's efforts for the R.E.A.C.H. events center, which could assist with wildfire evacuations and community infrastructure. The Municipality is also seeking funding to upgrade Road 618 as an alternative route.	Confidential engagement
C-01302	23/04/06	Red Lake Municipality	Email	Mayor of Red Lake clarify items from summary of in-person dialogue from Municipality of Red Lake: Crown land current owned by Ontario Government- we are working with government and First Nations to acquire the 190acres. Norseman - will be transformed by the KDSB into senior housing - approximately 12 units. A new build "potentially" by the REACH area would be inclusive of another 24 units thus releasing homes in the community. Following up with comments and MECP issues , the Municipality can explore options pertaining to septic tanks etc. further clarification from GBR would be required for such talks with our government contacts.	
C-04246	23/04/06	Ontario Ministry of Natural Resources (MNR)	Email	GBR reaching out to the MNRF regarding questions for the aggregate pits and aggregate rights in Ontario. The MNRF provided answers regarding owners and requirements for aggregate pits to GBR. GBR inquired regarding properly identifying surrounding aggregate pits owners. MNRF stated that they will follow-up to these questions shortly.	
C-01075	23/04/11	Ontario Ministry of Energy & Mines (MOEM)	Letter	The Ministry of Mines has acknowledged receipt of the Notice of Project Status for the Great Bear Project, submitted by Great Bear Resources Ltd. (GBR) on December 14, 2022, under section 140(1) of the Mining Act. The project entails underground access development, extraction of 60,000 tonnes of ore for testing, storage, and transport of mine rock, and associated surface activities. The Ministry has determined that a closure plan, including financial assurance, is required. Additionally, consultation with Wabauskang First Nation (medium consultation depth), Lac Seul First Nation (medium-low), and Asubpeeschoseewagong Netum Anishinabek (low) is mandated due to potential adverse effects on established or credibly asserted Aboriginal or treaty rights. GBR has been delegated procedural aspects of consultation and must submit a consultation plan within 30 days. The Ministry will provide oversight and may issue further direction as required to ensure compliance with consultation obligations. Great Bear followed up seeking additional information on spectrum of consultation required.	Engagement not related to Project
C-01080	23/04/12	Ontario Ministry of Energy & Mines (MOEM)	Email	Request for Pre-Submission ECA ISW Meeting, Great Bear provided for MECP consideration the Pre-Submission Request form. We will be prepared to provide a complete Design Brief for review prior to any scheduled meeting and have also attached a proposed agenda.	
C-01082	23/04/13	Ontario Ministry of Energy & Mines (MOEM)	Email	Surveyor General has sent MINES draft survey instructions for 4 GBR mining lease applications (4/7).	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01087	23/04/17	Ontario Ministry of Natural Resources (MNR)	Email	GBR followed up with the MNRF to inform them that there as been some, but limited, progress from MINES on the Draft Survey Instructions as we are still missing key instructions that are critical for AEX.	Engagement not related to Project
C-01092	23/04/19	Ontario Ministry of Energy & Mines (MOEM)	Email	Meeting request to review permitting	
C-04238	23/04/24	Ontario Ministry of Natural Resources (MNR)	Email	GBR discussion with MNRF regarding determining all stakeholders who are in our project area. There was a concern from finding out about an aggregate permit within the GBR project area that was not on the online Pits and Quarries website.	
C-02421	23/04/25	Red Lake Municipality	Email	Invitation from Red Lake Municipality to join the Canada Day Committee and attend the Red Lake Airport Festivities.	
C-01179	23/05/01	Ontario Ministry of Energy & Mines (MOEM)	Other	Determines if an Overall Benefit Permit is needed for the AEX Activities (no legislated timeline, experience tells us 1-3 months). We are anticipating that an Overall Benefit Permit will not be needed for AEX. Estimated Agency Approval- Aug 2023.	Engagement not related to Project
C-02428	23/05/01	Red Lake Municipality	Email	GBR Invitation to the May 2nd, 2023, Canada Day Event Planning meeting from Red Lake Municipality.	
C-02303	23/05/02	Ear Falls Municipality	Email	Confirmation that GBR will be sponsoring the upcoming Ear Falls Family Safety Night.	
C-02429	23/05/02	Ear Falls Municipality	Email	Response from Ear Falls to GBR's confirmation of sponsorship of their Canada Day event, including thanks and requesting a GBR logo be sent for inclusion in event advertising.	
C-02430	23/05/02	Ear Falls Municipality	Email	Inquiry from Ear Falls regarding GBR availability to participate in giving Ear Falls Council Members a site tour or presentation on the project.	
C-01109	23/05/03	Ontario Ministry of Energy & Mines (MOEM)	Virtual	Walked the staff through the current permit timelines, expressed concern about the precedent of these timelines for more critical permits and potential for project delays. Flagged the issue of the mining lease survey instructions which were not issued in the order of priority that we had been requested to provide - and the key instructions still pending.	
C-01108	23/05/04	Ontario Ministry of Energy & Mines (MOEM)	In Person	Updated Ministry of Mines on the progress and timelines for the Great Bear project. Walked through the various permits that were in process and the timelines to date. Shared the attached tracker for reference. GBR asked for an engagement strategy for ANA to ensure that duty to consult is met but project timelines are also kept in mind. Raised the matter of the mining lease survey instructions, which were delivered in reverse order of the priority we requested and that key instructions still pending.	
C-01110	23/05/08	Ontario Ministry of Energy & Mines (MOEM)	Email	Sharing permit application tracker and follow up commitment from MINES.	
C-01308	23/05/09	Ontario Ministry of Transportation (MTO) TBT Engineering	Email	MTO permitting for Tuzyk's Road	
C-08290	23/05/09	Red Lake Municipality	Email	Response to the Municipality of Red Lake's invitation to the Canada Day Committee Meeting with the request for sponsorship forms. The Municipality of Red Lake had replied with the completed sponsorship form along with an information package surrounding the Canada Day festivities planned.	
C-01187	23/05/12	Independent Electricity System Operator (IESO)	In Person	GBR met with the COO and VP Markets of IESO and the VP – Corp Relations, Stakeholder engagement of IESO and briefly introduced the Great Bear Project. Noted discussion on approach, on the operations vs. study. However, he was previously involved with building the power generation facilities at Ear Falls and is well aware of the weaknesses of the grid in that region. He is supportive of an approach to at least start the detailed technical work while the funding, cost sharing and business decisions are made in parallel.	
C-01188	23/05/12	Hydro One	Virtual	GBR met with Hydro One to introduce the project to the Indigenous Relations team. Moving forward, they agreed to have additional discussions after our feedback from the First Nations. Primary message is that Hydro One will evaluate First Nation equity partnership on this project noting that the reality is that if Indigenous communities want participation, it would likely happen.	
C-02080	23/05/12	Ontario Ministry of Environment, Conservation and Parks (MECP) WSP	In Person	GBR met with MECP to discuss the ECA ISW before submission. Discussions included baseline Baseline Water Conditions (Quality, Hydrology, Aquatics, Hydrogeology), assimilation study and proposed discharge criteria and discussion on consultation. Key consideration is that GBR will schedule a surface and groundwater technical meeting with the MECP to support specific in-depth discussion on the water balance and hydrogeology modeling results, including linkages to the planned PTTW application for the AEX Program. This technical meeting will be scheduled once refinements to the site plan and water balance modelling are complete.	Engagement not related to Project
C-02043	23/05/13	Northern Bioscience	Email	Northern Bioscience confirming MECP received the IGF and the SAR summary report. MECP confirmed receipt and noted that to facilitate our review MECP would ask that, in addition to the AAF, you provide a shapefile of the project area along with any additional shapefiles that may have been used to assist in the development to the IGF and AAF. MECP provides a general timeline for the ESA Activity Review and Assessment process that reflect potential timelines should an ESA authorization be required. Once the AAF and any additional supporting information have been submitted I will update the attached and provide it to you. Northern Bioscience informs MECP that the AAF would be following shortly as well as the shapefiles for the Great Bear AEX.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01117	23/05/15	ANA Ontario Ministry of Energy & Mines (MOEM)	Email	Follow-up to a meeting held on May 4, 2023 regarding the Great Bear Project and the items MINES committed to follow-up with including: Questions received from ANA - on April 21st MINES staff prepared draft responses to ANA's questions and shared that material with GBR so that the company could add in the project specific information. Survey instructions for the lease applications and understand that an initial lease package was submitted in June 2021 and the request was amended in May 2022. An additional lease package was submitted in September 2022. Exploration Permit (PR-22-00284), where the Ministry is still consulting on 44 mining claims that were removed from the permit upon issuance in order to allow additional time to consult with ANA based on the Ministry's understanding of where we owe the duty to consult. Once MINES receives back the project specific information in response to ANA's list of questions, which we understand will be this week, MINES will finalize the responses and send to the community. MINES will provide the community 10 business days to provide any further comments, specific to potential for impacts from the proposed early exploration activities and will signal the intent of the Director of Exploration to be in a position to make a decision on those 44 claims after that date.	Engagement not related to Project
C-09759	23/05/15	Ontario Ministry of Energy & Mines (MOEM) Thunder Bay Mining Day	Email	GBR notifying Thunder Bay Mining Days of the approval of their donation request. Thunder Bay Mining Days were thankful for the support.	
C-10041	23/05/15	Red Lake Municipality	Email	Red Lake Community Development & Communications Manager thanking GBR regarding their sponsorship request for PDAC being mailed out. GBR let them know to expect the sponsorship cheque soon.	
C-10044	23/05/15	Ear Falls Municipality	Email	Ear Falls response to GBR confirming the Family Safety Night sponsorship was approved, and to expect the cheque soon. Ear Falls thanked GBR and gave further follow-up regarding the possibility of GBR attending, and attached a registration form.	
C-01114	23/05/16	Ontario Ministry of Energy & Mines (MOEM)	Email	Response letter from GBR to MoE raising concerns with them about the response from IESO re Northwest IRRP	MOEM_051623_01
C-01115	23/05/16	Ontario Ministry of Energy & Mines (MOEM)	Email	MoE has informed GBR that they are reviewing the highest priority lease survey instructions from the OSG and GBR should be receiving the instructions very soon.	
C-02555	23/05/16	Ontario Ministry of Natural Resources (MNR)	Email	GBR inquiring with MNRF about opening up more space down Tuzyks Road for temporary drill core storage. This core will be cross piled on pallets and strapped and organized. GBR is looking at creating clearings to accommodate large machinery such as flatbed trucks for transport of core and loaders and or forklifts to maneuver within these areas.	
C-02564	23/05/16	Ontario Ministry of Natural Resources (MNR)	Email	MNRF response indicating which time would work best for the proposed meeting from GBR regarding the FMP and planned tree clearing.	
C-02566	23/05/16	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting a meeting with MNRF regarding the snowshoe dam operation. MNRF agreed to a meeting. GBR had a follow-up question regarding the minimum flow of the Chukuni, which the MNRF answered.	
C-08318	23/05/18	Red Lake Municipality	Email	Response to GBR notifying the Municipality of Red Lake that the sponsorship cheque for PDAC is ready to be picked up. Red Lake responded that they will be able to pick this up in the near future, and inquired regarding scheduling the photo-op with the Mayor.	
C-01118	23/05/19	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Congratulations to Minister Pirie for the royal assent of bill 71 building more mines act.	
C-01121	23/05/24	Impact Assessment Agency of Canada (IAAC)	Email	IPD Pre-Submission meeting request to kick off IAAC process	
C-02567	23/05/25	Ontario Ministry of Natural Resources (MNR)	Email	GBR providing the License to Collect Fish for Scientific Purposes and proposed sampling location to the MNRF. MNRF acknowledged the receipt and stated that it is being reviewed. The MNRF also detailed the new online portal for submissions, and further clarification for its use in tracking submissions.	
C-04222	23/05/26	Ontario Ministry of Natural Resources (MNR)	Email	Question from MNRF for GBR regarding aggregate pits, and what would be done within the permitted boundary. GBR responded to the question and clarified what was done under current permits. GBR also asked the MNRF questions surrounding permits in the surrounding area and questions surrounding ownership of nearby aggregate pits. MNRF responded regarding these questions, and sent along a comprehensive stakeholder list for stakeholders who may be impacted within the 1 km buffer area for the Great Bear Claims.	
C-10052	23/05/26	Red Lake Municipality	Email	Photos sent from Red Lake regarding the receipt of the cheque from GBR for the PDAC sponsorship.	
C-10057	23/05/29	Red Lake Municipality Red Lake Regional Heritage Centre	Email	Invitation from the Red Lake Regional Heritage Centre to participate in the upcoming grand reopening event on June 1st.	
C-01134	23/05/30	Hydro One	In Person	GBR met with Hydro One and others to establish a relationship at the CEO-level of Hydro One and to raise awareness of the Great Bear Project in Ontario and the company's energy needs and request that GBR energy needs receive priority attention to ensure electricity is available for the project.	
C-04235	23/05/30	Ontario Ministry of Natural Resources (MNR) WSP	Email	GBR providing MNRF a copy of the license to fish as well as letting MNRF copies were provided to LSFN and WFN. No concerns have been raised regarding this application however participation during the field work was requested.	
C-01135	23/06/02	Impact Assessment Agency of Canada (IAAC)	Email	Response from IAAC on IPD Pre-Submission meeting request	
C-01139	23/06/02	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP communicating that the ECA review will be put on hold until Dixie Creek information becomes available	Engagement not related to Project
C-01309	23/06/06	Ontario Ministry of Transportation (MTO) TBT Engineering	Email	MTO permitting for aggregates	
C-10100	23/06/06	Ear Falls Municipality	Email	Confirmation from Ear Falls regarding the receipt of sponsorship cheques.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01136	23/06/08	Impact Assessment Agency of Canada (IAAC)	Email	IAAC request for Follow Up meeting with GBR.	IAAC_060823_01
C-01138	23/06/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP requests meeting with GBR to discuss Species at Risk	Engagement not related to Project
C-01137	23/06/12	Impact Assessment Agency of Canada (IAAC)	Email	Confirmation of follow up meeting June 14, request for GBR to provide more information	
C-01140	23/06/12	Impact Assessment Agency of Canada (IAAC)	Email	Email of IPD Pre-Submission slide deck sent to IAAC	IAAC_061223_01
C-04223	23/06/12	Lac Seul First Nations Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	Discussion between GBR and MNRF following an in-person meeting May 12th, 2023, discussing forestry amendments. GBR followed up to inquire about the letters of support provided by WFN and LSFN, and also distributed the presentation given at the meeting. MNRF sent the WFN letter, and GBR confirmed that the LSFN letter of support should be received shortly. MNRF also praised GBR for having such a great relationship developed between GBR and the community.	
C-01167	23/06/13	Independent Electricity System Operator (IESO)	In Person	GBR CEO and President met with IESO CEO and others, to present the Great Bear project and discuss potential solutions and ways forward to ensure that sufficient power is available within the project's timeline.	
C-12278	23/06/15	Red Lake Municipality	Email	Red Lake noting to sponsors that they are currently preparing promotional material for the upcoming Canada Day Festivities, and for any sponsors to send their logo to be added to the material. GBR noted to RL that their sponsorship of the event has been approved and distributed their logo. RL responded and noted that their logo will be added to banners and brochures.	
C-01307	23/06/16	Ontario Ministry of Transportation (MTO) TBT Engineering	Email	MTO permitting for new roads and re-alignment of roads	
C-02572	23/06/16	Ontario Ministry of Natural Resources (MNR)	Email	MNRF sending a meeting invite to GBR to discuss the proposed effluent discharge pipeline and associated easement, with the MNRF District Supervisor sending their regrets for missing the meeting.	
C-01164	23/06/19	Ontario Ministry of Natural Resources (MNR)	Email	Site-specific meteorological data and the s.13 approval letter for use in Emission Summary and Dispersion Modeling for future Environmental Compliance Approval Applications.	
C-12255	23/06/23	OPP Red Lake Detachment Red Lake Airport Red Lake Indian Friendship Centre Red Lake Municipality	Email	Red Lake notifying the planning committee members of the upcoming Canada Day events of the final meeting prior to the event. Red Lake notes that the meeting will be held June 26, 2023, and that the meeting will to discuss a timeline for the day's events. Red Lake attached an agenda, a poster and brochure advertising the event, as well as a list of what is needed.	
C-01923	23/06/26	Ontario Ministry of Energy & Mines (MOEM)	Letter	Response letter from the Ministry of Mines to ANA regarding the application and information for proposed exploration activities. On February 27, 2023, the Ministry received an email from an ANA advisor, requesting answers to two sets of questions ANA summited to GBR. The Ministry worked with GBR to respond to these questions. Responses were for questions form a letter sent by ANA to GBR on October 4, 2022 and questions from Appendix A to letter sent by ANA to GBR on October 1, 2020.	Engagement not related to Project
C-01923	23/06/26	Ontario Ministry of Energy & Mines (MOEM)	Letter	Response letter from the Ministry of Mines to ANA regarding the application and information for proposed exploration activities. On February 27, 2023, the Ministry received an email from an ANA advisor, requesting answers to two sets of questions ANA summited to GBR. The Ministry worked with GBR to respond to these questions. Responses were for questions form a letter sent by ANA to GBR on October 4, 2022 and questions from Appendix A to letter sent by ANA to GBR on October 1, 2020.	Engagement not related to Project
C-02563	23/06/27	Ontario Ministry of Natural Resources (MNR)	Email	MNRF response to GBR questions surrounding boat cache permits for monthly sampling and safety mitigation. MNRF responded with the correct form and what needs to be applied for in this case, and the term for the boat caches. GBR replied with the Boat Cache application for a boat to be cached on Rice Lake within the project area. MNRF confirmed receipt and stated that they will assign staff to the project ASAP.	
C-01166	23/06/28	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR provided a copy of the presentation recently shared with Hydro One (and Ministry of Energy) regarding Great Bear's power needs (slides 8 and 9 have the specifics). GBR affirms that power is one of the key factors for the Great Bear Project. The current line does not have sufficient capacity to supply our needs, let alone additional needs of others or future needs on the region. A new line or an upgrade of the existing line as therefore critical. GBR requests that if you have any questions or want to have a follow up conversation about this topic. Any help / advice you have provide to have this infrastructure project prioritized will be greatly appreciated.	MOEM_062823_01
C-01170	23/06/28	Ear Falls Municipality	Email	Invitation from Ear Falls for GBR to participate in the Ear Falls Family Safety Night.	
C-01251	23/06/28	Ontario Ministry of Natural Resources (MNR)	Email	Letter of support for Forestry Amendments from Lac Seul for Domtar approval with amendments	
C-01319	23/06/28	Energy & Natural Resources Canada	Virtual	GBR met with Natural Resources Canada where GBR provided a comprehensive overview of the deck, highlighting key points and specific details. The presentation was informative and served as a foundation for the subsequent discussions on the application and insights on the process from NRCan's perspective. Moving forward, GBR will initiate discussions with the Mining Association to outline their potential involvement and collaboration. GBR will coordinate with the IAAA to align the process implementation and establish connections with ECCC.	
C-02559	23/06/28	Ministry of Natural Resources (MNR)	Letter	GBR providing the MNR with Lac Seul First Nations letter of support for the Forestry Amendments and upgrade to Tuyzks Roads. Lac Seul First Nation also received notice from Wabauskang First Nation that there are no concerns from them. Lac Seul First Nation does not have any concerns with the road being fixed and if anything is to arise.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01172	23/06/29	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	GBR following up on the status of the Conformity Review comments on the IPD and the preliminary list of Indigenous Communities for the Project.	
C-01173	23/06/29	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	IAAC response to GBR email following up on the status of the Conformity Review comments on the IPD and the preliminary list of Indigenous Communities for the Project.	
C-01247	23/06/30	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	Impact Assessment Agency of Canada comments on the draft IPD and list of Indigenous groups potentially impacted by the project including Wabauskang First Nation, Lac Seul First Nation, ANA, and Métis Nation of Ontario.	
C-09230	23/06/30	Ear Falls Municipality	Email	Correspondence with Ear Falls regarding the council participating in a site tour and presentation regarding the Great Bear Project. A few dates were proposed.	
C-01181	23/07/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Other	Required for air emissions related to all activities related to AEX including noise. Estimated Agency Approval- Apr 2024.	Engagement not related to Project
C-02611	23/07/04	Ontario Ministry of Natural Resources (MNR)	Email	Follow-up questions regarding effluent flow permitting. MNRF responded with answers regarding permits and further resources regarding Ministry policies and procedures.	
C-01400	23/07/07	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	IAAC wanted to thank GBR for the opportunity to meet with the team regarding the Great Bear Gold Project, and for providing an overview of the Project. During the meeting, IAAC referenced a Project, specifically in relation to Asubpeeschoseewagong Netum Anishinabek (also known as ANA). IAAC pointed to section 9.3 of the Environmental Assessment Report, which describes the historical context, the Agency's engagement, and the views shared by the community with the Agency. The Agency encouraged GBR to think about how to collaborate with the Indigenous communities and include similar information in GBR documents.	
C-09225	23/07/07	Red Lake Airport Red Lake Municipality	Email	Confirmation from Red Lake Municipality that GBR can run their contributing event and that accommodations will be made for additional room.	
C-01221	23/07/13	Mining Association of Canada	Email	Feedback shared from the Indigenous Relations Committee to NRCan prior to pre-engagement session.	
C-09217	23/07/13	Red Lake Airport Red Lake Municipality	Email	Nomination for community members to participate in the charity Dunk Tank at Norseman Days.	
C-02000	23/07/15	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Request from Manager of the Landscape Species Recovery Section with the MECP to discuss the Endangered Species Act and its relation to the early exploration and mining activities. Meeting took place June 15, 2023 at 12pm with discussion relating to the ESA and relation to the early exploration. Meeting Discussion was around information on the Endangered Species Act (ESA) as its relates to early exploration and mining activities including authorizations. A Northern Species at Risk Specialist from my team will also be in attendance and can provide any technical information related to species at risk (e.g. sensitive data agreements, species occurrence records, general habitat descriptions, mitigation measures etc.).	Engagement not related to Project
C-01284	23/07/17	Impact Assessment Agency of Canada (IAAC)	In Person	Meeting between IAAC and GBR on July 17th to walk through the IPD comments.	
C-01289	23/07/19	Ontario Ministry of Natural Resources (MNR)	Email	GBR sharing project summary to help MNRF determine requirements for a Class EA.	
C-04227	23/07/21	Ontario Ministry of Natural Resources (MNR)	Email	GBR distributing the Great Bear Project Summary for the MNRF to determine the requirements for a class EA for the proposed AEX program, and the category of the EA which will need to be completed. MNRF thanked GBR for the file, then asked if there were any shapefiles which relate to the proposed clearing, footprint of the pipeline, and proposed maintenance corridor.	Engagement not related to Project
C-09178	23/07/24	Ear Falls Municipality	Email	Confirmation regarding GBR providing PPE to Ear Falls Council ahead of the site visit. GBR confirmed they will be providing PPE for the site visit and Ear Falls further confirmed the number of attendees ahead of the visit.	
C-04228	23/07/25	Ontario Ministry of Natural Resources (MNR)	Email	Confirmation from the MNRF regarding the sizing of timber and confirming it is not considered merchantable. This confirms that no permit will be required in order to carry out the geophysics work without need for approval.	
C-01292	23/07/26	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	Responses to comments on the IPD draft	
C-01295	23/07/26	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	IAAC requesting that GBR upload documents on proponent portal to submit IPD and summary.	
C-01282	23/07/27	Ontario Ministry of Natural Resources (MNR)	Email	Discussion on the effluent discharge pipeline and associated easement	
C-01293	23/07/27	Ontario Ministry of Natural Resources (MNR)	Email	MNRF providing information on when permits are required for tree cutting.	
C-01310	23/07/31	ANA Ontario Ministry of Energy & Mines (MOEM)	Phone Call	Providing ANA an extension to review application regarding Early Exploration Claim Block Exclusion.	Engagement not related to Project
C-01312	23/07/31	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	IAAC confirming the IPD submission	
C-01177	23/08/01	Ontario Ministry of Energy & Mines (MOEM)	Other	The Ministry of Mines requires a draft submission for technical review. We require confirmation from Mines that all technical data and Consultation is complete prior to officially filing with Mines. Estimated Agency Approval- Dec 2023.	
C-01314	23/08/03	Ontario Ministry of Environment, Conservation and Parks (MECP) WSP	Email	GBR providing meeting notes and action from meeting on the 27th.	Engagement not related to Project
C-01316	23/08/03	Ontario Ministry of Energy & Mines (MOEM)	In Person	GBR CEO met with the Ministry of Energy's Deputy Minister to discuss the Great Bear Project, the background of the project and the critical path forward.	MOEM_080323_01

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01335	23/08/08	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR would like to set up a call to discuss changes in the Mining Act and effects on the AEX closure plan.	Engagement not related to Project
C-01860	23/08/08	Ear Falls Municipality	Email	Request for Donation from Ear Falls for the 2023 Fall festival	
C-06388	23/08/08	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Changing the signatory name on the Data Sharing Agreement to the name of the Site Manager, as they have the correct authority to bind the company. The MECP responded with the updated SDLA for signature. The MECP's Species At Risk Branch (SARB) was also anticipating to receive shapefiles of the GBR project area which had indicated the road, trail, camp site, and drill pad locations in order to facilitate the review for the submitted IGF for the AEX.	Engagement not related to Project
C-01320	23/08/09	Ontario Ministry of Energy & Mines (MOEM)	Email	After a call GBR had with the Ministry of Mines, the Ministry requested an update on key aspects of the project. GBR sent an email updating the Ministry of Mines on the Great Bear Project, specifically on the consultation and engagement, mining leases and federal permitting.	
C-01329	23/08/09	Ontario Ministry of Energy & Mines (MOEM)	Email	Confirmation was received that the exploration permit amendment to add the 44 claims to PR-22-000284, were issued.	Engagement not related to Project
C-01338	23/08/09	Ontario Ministry of Energy & Mines (MOEM)	Email	Meeting organized for August 16th at 1pm at the request of GBR, to discuss amendments to the Mining Act and effects on the Great Bear Advanced Exploration Closure Plan.	Engagement not related to Project
C-01330	23/08/10	Ontario Ministry of Energy & Mines (MOEM)	Email	Update on Great Bear project provided to the Ministry of Mines. Response received from Mines.	
C-01339	23/08/10	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting for restricted hunting areas to prevent hunting activities within designated region due to safety concerns.	
C-01856	23/08/10	Ear Falls Municipality	Email	Site Tour with Mayor and Council	
C-01857	23/08/10	Ear Falls Municipality	Email	Confirming reserving of recreation center for event	
C-01331	23/08/11	Ontario Ministry of Natural Resources (MNR)	Email	Response received from Ministry of Northern Development acknowledging that they received a project update.	
C-01341	23/08/11	Impact Assessment Agency of Canada (IAAC) WSP	Email	GBR response to comments on the IPD from IAAC	
C-01343	23/08/14	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	IAAC informing GBR receipt of the updated IPD	
C-01834	23/08/14	Ear Falls Municipality	Email	Posters for pride event in Ear Falls	
C-01344	23/08/15	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	IAAC recommending edits to the IPD on the estimated value of potentially acid generating volume.	
C-01345	23/08/15	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	GBR response to IPD edits requested by IAAC	
C-01346	23/08/15	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	GBR confirming with IAAC that an updated IPD and Summaries have be resubmitted.	
C-01828	23/08/15	Ear Falls Municipality	Email	Sponsorship request for the Ear Falls 2023 Fall Festival	
C-02047	23/08/16	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing MECP with all existing shapefiles illustrating the roads, trails and pad locations within the project areas. GBR requested that MECP let them know when the review of the submitted IGF will be completed.	
C-02565	23/08/16	Ontario Ministry of Natural Resources (MNR)	Email	MNRF Requesting to meet with GBR to discuss the request for restricted hunting area. GBR accepted the meeting. MNRF also requested project shapefiles for the project summary in regard to the Class EA Determination. GBR sent the files, and the MNRF confirmed their receipt.	
C-01342	23/08/17	Impact Assessment Agency of Canada (IAAC)	Email	GBR informing IAAC that the revised IPD has been uploaded.	
C-01355	23/08/17	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	IAAC emailing to notify GBR of the accepted Initial Project Description and the start of the public comment period.	IAAC_081723_01
C-01929	23/08/17	Impact Assessment Agency of Canada (IAAC) Metis Nation of Ontario	Letter	Notification to the MNO that the IAAC accepted an Initial Project Description for the proposed Great Bear Project. Request for comments by September 18, 2023.	IAAC_081723_02
C-01358	23/08/18	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with MINES to provide an overview of the Great Bear project's energy needs.	
C-01383	23/08/18	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Request for Meteorological Data Set in order to obtain a site-specific meteorological dataset for use in Emission Summary and Dispersion Modeling for future Environmental Compliance Approval Applications.	Engagement not related to Project
C-01980	23/08/18	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	WFN providing GBR and Ministry of Northern Development, Mines, Natural Resources and Forestry with the AEX Pipeline Report	Engagement not related to Project
C-01384	23/08/22	Red Lake Municipal Council Red Lake Municipality	Email	Mac Potter introductory email to Red Lake municipality.	
C-01385	23/08/22	Red Lake Municipal Council	Email	Follow up to introductory email communication with the Red Lake	
C-01386	23/08/22	Economic Development Red Lake Red Lake Municipality	Email	Mac Potter introductory email to Red Lake municipal administration.	
C-01387	23/08/22	Ear falls Municipal Council Ear Falls Municipality	Email	Mac Potter introductory email to Township of Ear Falls leadership.	
C-01388	23/08/22	Red Lake Municipal Council	Email	Follow up communication from Counsellor Kristoff on introductory email.	
C-01390	23/08/22	Red Lake Municipality	Email	Follow up communication from Red Lake administration.	
C-01391	23/08/22	Ear Falls Municipality	Email	Follow up communication from Ear Falls Councilor.	
C-01392	23/08/22	Ear Falls Municipality	Email	Follow up communication to Ear Falls Councilor, and planned meeting going forward.	
C-01398	23/08/22	Ear falls Municipal Council Ear Falls Municipality	Email	Email communication response from Mayor Kahoot.	
C-01443	23/08/23	Red Lake Municipal Council Red Lake Municipality	Email	Follow-up to introduction email with Red Lake	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-04229	23/08/23	Ontario Ministry of Natural Resources (MNR)	Email	Reply from MNRF regarding the determination of Class Environmental Assessment Category for the Great Bear Project. MNRF replied regarding additional permits needed for work, and stated that more information would be needed along with all necessary permits in order to properly determine what EA is needed.	
C-01452	23/08/24	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Mining Lease submission	
C-02033	23/08/29	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP requesting shapefiles of the GBR project area indicating road, trail, camp site and drill pad locations. These shapefiles are necessary to facilitate a review of the submitted IGF advanced exploration.	Engagement not related to Project
C-01451	23/08/30	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR) TBT Engineering	Email	Mining leases and submission to MINES ministry.	
C-01313	23/08/31	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Email	GBR confirming that the IPD will be submitted on Wednesday and also listed the approvals which GBR is expecting.	
C-01448	23/08/31	Government of Ontario	Virtual	Update to PM office on GBR in preparation for CEO-PM meeting.	
C-01449	23/08/31	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	Wabauskang First Nation providing GBR the AEX pipeline report submitted for review, the location was highlighted for a value within 200m of the proposed project has been identified. No recommendation for mitigation at this time, however, Obaushkong Aki or the WFN Resource Office recommends that GBR continues to inform the community about the project as it progresses.	Engagement not related to Project
C-01182	23/09/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Other	Required for all water taking and or transfers. Includes underground dewatering and construction front activities that require the movement of water. Estimated Agency Approval- May 2024.	Engagement not related to Project
C-01184	23/09/01	Ontario Ministry of Natural Resources (MNR)	Other	Required to assess the potential impacts of timber clearing activities. A number of classes can be applied, we are anticipating a low impact Class A or B Assessment. Estimated Agency Approval- Nov 2023.	
C-01186	23/09/01	Ontario Ministry of Natural Resources (MNR)	Other	Required for any activity on Crown land that has not been brought to lease. A large section of the WTP effluent pipeline is anticipated to be on crown land. Estimated Agency Approval- Mar 2024.	
C-01478	23/09/01	Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT)	Email	Meeting request with Minister of Economic to discuss an overview of the Great Bear Project.	
C-01480	23/09/01	Ear Falls Municipality	Email	Response to introduction and request on status for the Regional Stakeholder Group.	
C-01499	23/09/01	Asubpeeschoseewagong Netum Anishinabek Impact Assessment Agency of Canada (IAAC)	Email	The Great Bear team sincerely appreciate Asubpeeschoseewagong Netum Anishinabek's contributions during the June 22, 2023, meeting. GBR looks forward to continued meaningful engagement and reiterate our offer of capacity funding. Great Bear notes they wish to explore synergies between the community's interests and the Great Bear Project's objectives. Invitation to reach out, and welcome the opportunity to meet in the community to discuss our commitments and next steps in person.	IAAC_090123_01
C-01540	23/09/01	Red Lake Municipality	Email	Feedback form for sponsoring Canada Day	
C-01932	23/09/01	Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT)	Email	Introductions connection with Minister of Economic Development, Job Creation and Trade	
C-04230	23/09/01	Ontario Ministry of Natural Resources (MNR)	Email	MNRF contacting GBR regarding confirmation on amended areas for the proposed hunting closures. GBR confirmed that they had received the attached the map, and confirmed they will be working on a plan for notification for FN, and a plan for access.	
C-01485	23/09/06	Ontario Ministry of Energy & Mines (MOEM)	Email	Email sent to MINES to check in on Mining Lease CLM587 status.	
C-01537	23/09/06	Ear Falls Municipality	Email	GBR thanked for sponsoring Canada Day and Feed back form provided.	
C-01550	23/09/06	Ontario Ministry of Energy & Mines (MOEM)	Email	Thank you and follow up note from previous meeting.	
C-01486	23/09/07	Ontario Ministry of Energy & Mines (MOEM)	Email	Response from MINES following email checking up on the status of our Mining Lease CLM587.	
C-01491	23/09/07	Ear Falls Municipality	Email	GBR plans to establish a regional stakeholder group with a council member from each municipality; a communication to the Township of Ear Falls for council consideration is planned for next week, and a follow-up with Ear Falls will occur before sending the request.	
C-01574	23/09/08	Red Lake Municipality	Email	Initiation to Red Lake to join the Great Bear Community Liaison Committee	
C-01576	23/09/08	Ear Falls Municipality	Email	Invitation to join Great Bear Community Liaison Committee	
C-01610	23/09/08	Red Lake Municipality	Email	Response to joining Great Bear Community Liaison Committee, that Red Lake would be happy to participate.	
C-01611	23/09/08	Ear Falls Municipality	Email	Response to joining the Great Bear Community Liaison Committee, that Ear Falls would be happy to participate.	
C-01594	23/09/14	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry of Energy & Mines (MOEM)	Email	Communication directed to the IAAC from ANA, mentioning notable concerns relating to capacity, Indigenous rights, and lack of actions taken by the federal government. Notable concerns were also related to protocol raised by community.	
C-02314	23/09/18	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	In Person	Wabauskang First Nation provided letter to support AEX pipeline easement route. WFN notes that there are no recommendations for mitigation but that GBR should continue to inform the community about the Project as it progresses.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02315	23/09/18	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	A review of the shapefiles for the AEX pipeline routes is requested from Lac Seul, as Wabauskang has already submitted their report. There are no known concerns from previous site tours, but confirmation is needed to ensure no issues exist in the proposed right of ways. The environmental manager is coordinating with the MNRF to clear trees in February to reduce environmental impacts and has attached relevant files for review.	Engagement not related to Project
C-01553	23/09/19	Asubpeeschoseewagong Netum Anishinabek Lac Seul First Nations Metis Nation of Ontario Ontario Ministry of Natural Resources (MNR) Wabaseemoong First Nation Wabauskang First Nation	Letter	MNRF providing GBR with letters and map sent to stakeholders and Indigenous communities regarding hunting closures needed for safety considerations of staff in designated area. The restriction is not intended to abrogate or restrict any rightsholder who is wishing to harvest.	
C-01554	23/09/19	Ontario Ministry of Energy & Mines (MOEM)	Email	Review of draft surveys for CLM 590 & CLM 591	
C-01592	23/09/19	Ontario Ministry of Natural Resources (MNR)	Email	"No Hunting" letters and map sent to stakeholders, and the Indigenous communities	
C-01601	23/09/20	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Wabauskang First Nation	Letter	A letter from WFN and LSFN Chiefs on Sept 15, 2023 to IAAC outlining their concerns with the IAAC engagement to date including a lack of understanding and respect of First Nation consultation protocols. The FN were feeling that they were bullied with threats of IAAC self-imposed deadlines and demands. ANA was reflected well.	IAAC_092023_01
C-01605	23/09/20	ANA Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry of Energy & Mines (MOEM)	Email	Attached correspondence to IAAC from ANA concerning the Great Bear Gold Project and issues that the ANA have raised. Issues include a lack of inclusion of protocol for communications with the ANA, a lack of compliance in understanding the ANA views and context, and concern in the level of engagement as expressed by Indigenous Services Canada.	IAAC_092023_02
C-01606	23/09/21	Great Bear Gold Project Projet Aurifère Great Bear Lac Seul First Nations Wabauskang First Nation	Email	Response from IAAC to Wabauskang First Nation and Lac Seul First Nation regarding letter dated September 15, 2023 to the Impact Assessment Agency of Canada (Agency).	IAAC_092123_01
C-01608	23/09/21	Ontario Ministry of Energy & Mines (MOEM)	Email	Consultation requirements for AEX permitting	Engagement not related to Project
C-01618	23/09/21	Red Lake Hospital Red Lake Municipality	Email	GBR participation in he Strategic Planning for the Heritage Centre and Margaret Cochenour Memorial Hospital	
C-01619	23/09/21	Red Lake Municipality	Email	Confirmation of joining Great Bear Community Liaison Committee	
C-01621	23/09/21	Ear Falls Municipality	Email	Confirmation for joining the Great Bear Community Liaison Committee	
C-01630	23/09/21	Great Bear Gold Project Projet Aurifère Great Bear Lac Seul First Nations Wabauskang First Nation	Email	Invitation to IAAC from Shared Spirits to join the Environmental Management Committee meeting on September 25th.	
C-01631	23/09/22	Lac Seul First Nations Red Lake Municipality Wabauskang First Nation	Email	Arranging an introduction meeting between GBR and the new Shared Spirits CEO.	
C-01633	23/09/22	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Wabauskang First Nation	Email	Invitation to IAAC to join Environmental Management Committee meeting on September 25th.	
C-01650	23/09/22	Red Lake Municipality	Email	Invitation letter to inquire on interest in participating in the Socio-Economic Baseline Report being conducted by WSP E&I Limited (WSP) for the Great Bear Project. GBR is gathering information regarding the existing social and economic conditions of the communities that may be impacted by the Great Bear Project. As part of this process, GBR has hired WSP to complete a Socio-Economic Baseline Report, specifically to: - Conduct research to update information regarding the existing social and economic conditions of the Great Bear Project Study Area; and - Identify actions that GBR may take to minimize and mitigate project risks and impacts. As such, WSP is seeking participation to provide information related to community resources available to the region. GBR is committed to developing strong and transparent relationships with communities as we progress with this project.	
C-01651	23/09/22	Ear Falls Municipality	Email	Invitation letter to inquire on interest in participating in the Socio-Economic Baseline Report being conducted by WSP E&I Limited (WSP) for the Great Bear Project. GBR is gathering information regarding the existing social and economic conditions of the communities that may be impacted by the Great Bear Project. As part of this process, GBR has hired WSP to complete a Socio-Economic Baseline Report, specifically to: - Conduct research to update information regarding the existing social and economic conditions of the Great Bear Project Study Area; and - Identify actions that GBR may take to minimize and mitigate project risks and impacts. As such, WSP is seeking participation to provide information related to community resources available to the region. GBR is committed to developing strong and transparent relationships with communities as we progress with this project.	
C-02320	23/09/26	Thunder Bay Community Economic Development Commission	Email	MPP for Thunder Bay outreach by Thunder Bay Community Economic Development Commission	
C-04231	23/09/26	Ontario Ministry of Natural Resources (MNR)	Email	MNRF following up to a call with GBR regarding a nuisance beaver dam in Dixie Creek. MNRF attached a application for a permit to remove/destroy a beaver dam, and possibility to hire a trapper to remove the beaver, which would require compensation.	
C-01641	23/09/27	Red Lake Municipality	Email	Invitation to meet with WSP to participate in the Socio-Economic Baseline Report	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01668	23/09/28	Ontario Ministry of Energy & Mines (MOEM)	Email	Follow-up email on scheduling meeting with Mines on MNO	
C-01672	23/09/28	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR request to for contact information to engage with Wabaseemoong Independent Nation.	
C-01961	23/09/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication received from the MECP asking for the pre-submission meeting request for next Tuesday and any materials that can be reviewed by the MECP prior to the meeting, along with and correspondence with the SAR branch so that follow-up can be made in light of an upcoming meeting with the SAR Branch.	Engagement not related to Project
C-01684	23/09/29	Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT)	In Person	GBR discussed the mining project, its challenges, and the potential for government support, particularly regarding power supply, infrastructure funding, and housing solutions. The Minister emphasized the need to involve the relevant ministries and stay within their respective mandates.	
C-01685	23/09/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Letter of congratulations to new Minister.	Engagement not related to Project
C-01697	23/09/29	Lac Seul First Nations Red Lake Municipality Wabauskang First Nation	Email	Attached pre-notification package related to owner's representative services	
C-01180	23/10/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Other	Required for temporary diesel power of more than 5 MW during the construction phase of the project. Permitting just in case required. Estimated Agency Approval- Feb 2024.	Confidential engagement
C-04248	23/10/03	Ontario Ministry of Natural Resources (MNR)	Email	GBR reaching out to MNRF regarding survey results from field work regarding an exclusion zone to be staked in the surrounding project area. MNRF replied with an email which was sent to the surveying team.	
C-01708	23/10/04	Ontario Ministry of Energy & Mines (MOEM)	Email	General discussion based on limestone sources in the Red Lake area.	
C-02011	23/10/04	Ontario Ministry of Natural Resources (MNR)	Email	MNRF sending GBR agreements to sign regarding Hunting Restriction Sign posting plan and the Hunting Closure Area.	
C-01713	23/10/05	Ear Falls Municipality	Email	Response to invitation to participate in socio-economic baseline study	
C-01810	23/10/05	Dillon Consulting Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Sapo'nuk Sustainability	Email	Request review draft agenda for IAAC visit with Lac Seul First Nation and Wabauskang First Nation	
C-01735	23/10/12	Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) WSP	Letter	Letter from GBR to ECCC requesting a Temporary Time Limit Suspension of the Planning Phase for the Great Bear Gold Project's Impact Assessment.	
C-01893	23/10/12	Ontario Ministry of Energy & Mines (MOEM)	In Person	Meeting with the Ministry of MIINES to discuss how to proceed with MNO engagement and to receive their recommendations.	
C-01807	23/10/16	Great Bear Gold Project Projet Aurifère Great Bear Sapo'nuk Sustainability	Email	Confirmation of cancelation of meeting.	
C-01836	23/10/16	Dillon Consulting Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Sapo'nuk Sustainability SOAR Wabauskang First Nation	Email	Lac Seul FN informing GBR that they cannot make the meeting due to conflict.	
C-01838	23/10/16	Dillon Consulting Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Sapo'nuk Sustainability SOAR	Email	Due to both the IAAC's and Lac Seul's inability to attend the joint meeting on Wednesday morning, Wabauskang will not have representatives in Red Lake on Wednesday	
C-01872	23/10/16	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	In Person	Minister's Mining Industry Council (MMIC) meeting on October 18th for the Minister to connect with industry leaders about our government's Building More Mines Act receiving Royal Assent, potential for Ontario supply chain gaps and the state of labour attraction in the mining sector.	
C-01878	23/10/16	Great Bear Gold Project Projet Aurifère Great Bear Sapo'nuk Sustainability	Email	Confirming meeting has been canceled	
C-01875	23/10/19	Hydro One Independent Electricity System Operator (IESO) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	In Person	During the Queen's Park Lobby Day, GBR joined meetings with the AMPCO which were also attended by key Government stakeholders.	
C-01888	23/10/19	Ontario Ministry of Natural Resources (MNR)	Email	Regarding the AEX FRL Application Submission	Engagement not related to Project
C-01894	23/10/19	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Introductory email sent to new MECP Director of Stakeholder Relations.	Engagement not related to Project
C-02014	23/10/19	Ontario Ministry of Natural Resources (MNR)	Email	GBR providing MNRF the Forest Resource License Application, from the originally submitted Advanced Exploration (AEX) Project Summary as well as shapefiles for the FRL Pipeline ROW.	Engagement not related to Project
C-04232	23/10/19	Ontario Ministry of Natural Resources (MNR)	Email	GBR distributing the Forest Resource License Application to the MNRF. MNRF confirmed receipt, and stated that their team will be working on the EA and permitting.	
C-04234	23/10/19	Ontario Ministry of Natural Resources (MNR)	Email	MNRF reaching out to GBR following a conversation between the two parties earlier that morning. The MNRF provided the Wildlife Scientific Collector's Permit in response to GBR's plans for wolverine run poles.	
C-01903	23/10/20	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Correspondence with MECP regarding the monitoring plan updates	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02058	23/10/20	Impact Assessment Agency of Canada (IAAC)	Email	Message received from IAAC informing us that they met with ANA and are suggesting that a joint meeting between GBR, ANA, and Iaac, take place.	
C-02053	23/10/24	Ontario Ministry of Energy & Mines (MOEM)	Email	Closure plan: It would be great if we could have a quick chat about what to do with this one given the pending changes in regulation. Should we submit, and then withdraw if the changes are put in force? Or should we hold off and work on the basis of - and in anticipation of - the new regulatory framework? Or is there another path you would recommend here? GBR can proceed under the current regulations for the proposed Advanced Exploration Closure Plan. If changes to the Mining Act are implemented prior to filing of the closure plan, GBR will be provided the option to withdraw and resubmit under the revised regulatory framework, should GBR determine that it is in the best interest of the company. Sewage permit: Obtaining this permit is critical to be able to start any advanced exploration works next year. The official service timeline for this permit is 12 months from submission, but we are hearing that turn-around times are usually faster. For various technical and planning reasons, the time between our permit submission and the drop-dead date by which we would need the permit (to avoid delaying the project) is going to be significantly less than the service timeline. Our designs are standard and have previously been approved by MECP for other projects, so we hope that MECP will be willing/able to expedite processing of this permit application once we file it. To be clear, are you referring to the ECA authorization? If so, when do you anticipate submission of the permit application to MECP? MINES will commit to liaise with other Ministries regarding sensitive permitting timelines for proponents. As such, if you are able to provide those timelines/dates that could become problematic for the company, that will allow us to convey this to other Ministries, and we would encourage you to	Engagement not related to Project
C-01996	23/10/27	Red Lake Municipality	Email	WSP providing Municipality of Red Lake a copy of the notes taken at their meeting on October 24th. The meeting was part of WSPs research into socio-economic baseline conditions.	
C-01997	23/10/27	Ear Falls Municipality	Email	WSP providing the Township of Ear Falls a copy of the notes taken at their meeting on October 24th. The meeting was part of WSPs research into socio-economic baseline conditions	
C-01960	23/10/30	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication regarding what's present at the BTU property and various areas on the property with hydrocarbon-stained soils and caps off of oil barrels and tanks, along with tipped over fuel tanks. Communication with BTU metals regarding plans being made in place to deal with oil/water filled barrel disposals and cleanup of the hydrocarbon-stained soil.	Engagement not related to Project
C-01973	23/10/31	Chukuni Communities Development Corporation Ear Falls Municipality Northwestern Health Unit Red Lake Airport Red Lake Career and Employment Services Red Lake Fire Department Red Lake Municipality	Email	Invite to the Great Bear Community Liaison Committee Meeting scheduled for November 14th, 2023. Follow-up communications include accepting the meeting from the Red Lake Career and Employment Services, Red Lake Municipality, Red Lake Fire Department, Mayor of Ear Falls substitution for an invited staff member unable to attend from the Red Lake Airport, regrets from Northwestern Health Unit, the Mayor of Red Lake, Red Lake Regional Heritage Center,	
C-02001	23/10/31	Asubpeeschoseewagong Netum Anishinabek Impact Assessment Agency of Canada (IAAC)	Email	Communication from the IAAC to indicate that the ANA Lands Protection Team had emailed them to schedule a joint meeting and discuss the preparation of a process agreement and address capacity supports.	
C-02019	23/10/31	Ontario Ministry of Environment, Conservation and Parks (MECP) WSP	Email	GBR following up on anticipated timeline for MECP to complete the review of the ECA ISW and PTTW as well as on the Vendors that currently have mobile ECA's in place for portable temporary TSS water treatment plants. MECP requesting for an updated hydrog monitoring plan.	Engagement not related to Project
C-02021	23/10/31	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing MECP the Aquatic Baseline Report.	Engagement not related to Project
C-01185	23/11/01	Ontario Ministry of Natural Resources (MNR)	Other	Required to remove any timber from crown land, obtained after the Class EA Screening is complete. Estimated Agency Approval- Jan 2024.	Confidential engagement
C-02027	23/11/01	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR requesting an update from MECP on the review of the IGF submitted for the proposed advanced exploration, submitted by Northern Bioscience.	Engagement not related to Project
C-01921	23/11/02	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	MECP called for a quick follow up on the introductory email from GBR. The call provided an opportunity to provide a high level overview of GBR and the Great Bear Project and touch on our species at risk permit. Agreed to follow up with a further email, and schedule a meeting with the Minister in the near future.	Engagement not related to Project
C-01925	23/11/02	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communications with the MECP regarding timelines and the concern about timelines in determining if an OB is required for AEX.	Engagement not related to Project
C-01931	23/11/02	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD)	Email	Introduction to key contact at MECP	
C-04239	23/11/02	Ontario Ministry of Natural Resources (MNR)	Email	Follow-up email from the MNRF regarding the November 2nd, 2023, meeting regarding FRL and Crown Land. MNRF confirmed that GBR will need to submit and Application for Crown Land to have the effluent discharge pipeline on Crown land outside of leased land.	
C-04240	23/11/02	Ontario Ministry of Natural Resources (MNR)	In Person	Phone call between GBR and the MNRF to discuss FRL and Crown land. MNRF confirmed that the FRL is in review, and there is a change to obtain the license in December, and that further work permits for the road and Land Use are needed to support the proposed February clearing. MNRF confirmed that GBR will need to submit an Application for Crown Land for the effluent discharge pipe. MNRF indicated that further follow-up will be had with GBR in the near future to discuss options regarding the Research Forestry Plot which the NG line goes through.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01978	23/11/03	Ontario Ministry of Energy & Mines (MOEM)	Email	Sharing of the Draft Closure Plan GBR AEX with Ministry of Mines in hope of getting feedback on the document by December 3rd, 2023, or sooner. GBR also communicated that the line for communication in the case of any questions Ministry of Mines has regarding the draft.	Engagement not related to Project
C-02045	23/11/03	Ontario Ministry of Energy & Mines (MOEM)	Email	Sharing of the Draft Closure GBR AEX Plan with Ministry of Mines staff. GBR also expresses their eagerness to hear feedback before or on December 3rd. GBR also extended the opportunity to meet if any further discussion needs to take place leading up to Dec 3.	Engagement not related to Project
C-02046	23/11/07	Asubpeeschoseewagong Netum Anishinabek Impact Assessment Agency of Canada (IAAC)	Email	Communications with ANA and the IAAC regarding their availabilities for a meeting. The proposed meeting agenda from ANA addresses the issues with the IA process to date, the premature initiation of process, the pre-planning timeline and appropriate discussion along with demands to suspend process and restart if possible. Follow-up and by Great Bear team was proposed to ANA Lands Protection Team to discuss a pause to the Phase 1 process to allow for time to prepare a Process Agreement and address capacity supports.	
C-02048	23/11/07	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	GBR following up and confirming the meeting with ANA for Nov 10th. GBR requests to provide information on the Great Bear Project during the meeting with a presentation. ANA did not agree to a presentation from GBR during the meeting. IAAC suggest that GBR have further discussions with ANA Land Protection Team to facilitate a separate meeting for the presentation.	
C-04241	23/11/08	Ontario Ministry of Natural Resources (MNR)	Email	MNRF asking GBR to meet in order to discuss the research plot. GBR gave availability and asked if the meeting could also be used to follow-up on some questions regarding the ownership of Tuzyks Road and preferred directions for the test pit plans. MNRF confirmed they could also discuss the other items proposed and will send an invite soon.	
C-01880	23/11/09	Red Lake Municipality	Email	Red Lake Community Health Care Committee reaching out to set up a discussion on what the CHCC's role is, and how community partners, such as GBR, may be able to assist.	
C-02556	23/11/09	Ontario Ministry of Natural Resources (MNR)	In Person	GBR providing a project update for the MNRF and discussed: Guidance provided on Permits/Approvals Notice of proposed amendments to the Environmental Assessment Act on EBR Archaeology	
C-01965	23/11/10	Impact Assessment Agency of Canada (IAAC)	Email	GBR providing access to the Great Bear Project Draft Detailed Project Description to the IAAC.	
C-02076	23/11/10	Asubpeeschoseewagong Netum Anishinabek Impact Agency of Canada (IAAC)	In Person	Meeting between representation of ANA, GBR, and the Impact Assessment Agency of Canada. IAAC provided presentation materials ahead of meeting to support, note ANA provided notice that review of GBR provided materials will not be completed at this time. Principal dialogue occurred between representatives GBR and ANA. Request from ANA to apply a pause to all activities until former protocol agreement can be put in place to ensure information sharing. Noted commitment to affirm follow up meeting timing to address actions, including consideration to pause. GBR staff reaffirmed Company commitment to provide capacity to support informed dialogue, but will not pause the permit reviews. GBR has shared all the information starting in 2022. Key concerns articulated by ANA included a focus on community dialogue and integration of that knowledge over the course of the Project, lack of consultation to date, requirement for an appropriate protocol, and the Project presents an ongoing risk to the communities Aboriginal and Treaty Rights. ANA explained that it wants to resolve long-standing issues with Ontario and Canada first before it supports any development. ANA will not support the Project no matter what GBR does to resolve ANA concerns about the Project.	IAAC_110723_01 IAAC_110723_02
C-04251	23/11/10	Ontario Ministry of Natural Resources (MNR)	In Person	Meeting between GBR and MNRF to discuss the research plot near Tuzyk's intersection, the Tuzyk's road realignment, and the Boreholes and test pits. MNRF will follow-up regarding a path forward for the Offset of Research Plot, and timeline for Tuzyks Road ownership. Further submission of the Geotech Study including borehole and test pits, will also be submitted to the MNRF after the receipt of the Letters of Permission for approval from FN communities.	
C-01943	23/11/14	Red Lake Municipality	Email	Planning logistics for a meeting between GBR and Red Lake Municipality's Community Health Care Committee which supports health care within Red Lake in order to provide assistance in doctor recruitment. The purpose of the meeting was to discuss the role of CHCC and how community partners may be able to assist.	
C-01963	23/11/14	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR provides details of the attached Great Bear Advanced Exploration Program Closure Strategy. Document was prepared to summarize the Closure strategy for the AEX program. The purpose of this draft plan is to seek input from Indigenous communities regarding the proposed closure strategy for the AEX Program. This document has been provided to the Ministry of Mines.	Engagement not related to Project
C-01944	23/11/15	Ontario Ministry of Energy & Mines (MOEM)	Email	Communication with the Ministry of Mines sending the updated information letter for the AEX Closure Plan to ANA which was sent to all meeting participants from the November 10th.	Engagement not related to Project
C-01940	23/11/16	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD)	Virtual	Introductory meeting with MECP.	
C-02040	23/11/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication from the MECP thanking GBR for taking the time to touch base and better understand the activities planned and associated timelines in relation to the AEX project. MECP provided comments alongside the GBR follow-up material meeting notes provided.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02040	23/11/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication from the MECP thanking GBR for taking the time to touch base and better understand the activities planned and associated timelines in relation to the AEX project. MECP provided comments alongside the GBR follow-up material meeting notes provided.	Engagement not related to Project
C-01941	23/11/20	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD)	Email	Follow up from introductory meeting with Minister. Discussed species at risk and industrial sewage permits.	Engagement not related to Project
C-02287	23/11/21	Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	Conversation from the MRNF confirming that they have delegated the procedural aspects of consultation to GBR. The delegation letter and contact for WFN and LSFN have been provided.	
C-02060	23/11/23	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	Meeting between GBR, IAAC and WSP. Topics of discussion included: Schedule and Indigenous Relations/ROC Update Draft DPD and Summary of Issues December 2023 submission for final DPD was confirmed by GBR. GBR will follow-up with a specific target date.	IAAC_112323_01.pdf
C-02006	23/11/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication with the MECP from GBR in order to request for review on the Ambient Air Monitoring Program for anticipated air emissions of the Great Bear Project. The review given from the MECP goes into detail regarding comments on each section. The MECP comments were further addressed in attachments sent to the MECP in reply, and further communication from GBR asking for confirmation that the responses have met concerns and MECP's satisfaction with the AABMP.	Engagement not related to Project
C-02009	23/11/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Communication from GBR to the MECP regarding the anticipated timeline for MECP's review of the ECA ISW and PTTW, along with requested follow-up for which vendors currently have mobile ECA's in place for portable temporary TSS water treatment plants. The MECP states that December is targeted for feedback on the Groundwater Monitoring Report, and end of November/December for the written comments from the MECP. MECP indicated that at this time, there is no indication of if the feedback will be considered final or if there will be further response from GBR. The list of vendors was also given to GBR. Further follow-up from the end of November was sent to the MECP inquiring about any additional updates and when comments can be expected.	Engagement not related to Project
C-02005	23/11/30	Ontario Ministry of Natural Resources (MNR)	Email	Work Permit and Crown Land Application for the area requested previously for the Forest Resource License for proposed clearing in February 2024 sent from GBR to the Ministry of Natural Resources and Forestry. The aim of this is to reduce environmental impacts. The DFO's request for review has also been added in attached documents with all activities requiring the DFO's review added. The MNRF also requested any applicable shapefiles, which GBR sent in follow-up.	
C-02037	23/11/30	Ontario Ministry of Energy & Mines (MOEM)	Email	Communication from GBR to the Ministry of Mines asking for the timeline on the review of the Closure Plan and asking if any comments will be expected back within the week.	
C-02112	23/11/30	Ontario Ministry of Natural Resources (MNR)	Email	Scheduling a meeting with the MNRF at their request to discuss the timing of permitting.	
C-02113	23/12/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Follow-up from call a few days ago between GBR and MECP discussing the timeline to clear ROW. The ROW is unlikely to be cleared by January 14th, 2024, and there is concern from GBR in being able to obtain MNRF's approval before this date. Further discussion of the unlikelihood of a wolverine den in the proposed pipeline route, and a high level of ongoing anthropogenic disturbance from other operations. A map was attached which highlighted the range of breeding female wolverine's ranges within the Red Lake and Ear Falls area. GBR also confirmed that there were no wolverines on trail cameras in the proposed route nor any tracks on the February 2022 and 2023 surveys.	Engagement not related to Project
C-02114	23/12/01	Ontario Ministry of Transportation (MTO)	Email	GBR touching base with the MTO regarding the furthering of safer access to the realigned Tuzyks Road. Previous approval in a previous meeting was mentioned along with the discussion for an Entrance Permit to support the Forestry company which would also support the upgrades to the intersection. MTO requested confirmation of the sight distance at this location and concerns regarding the sight distance to north headed to Red Lake. GBR followed up with the sight distances confirmed, along with the list of users of this road and further details.	
C-02115	23/12/01	Ontario Ministry of Natural Resources (MNR)	Email	GBRs' request to do Geotech investigation within the project area for December. While most areas fall within the Early Exploration Permit, there are a few areas which fall outside, but within mining claims. A letter of permission from the MNRF would be required in order to further determine resources available within the project area. MNRF responded that a review and consultation will be needed and will likely not be prepared until the new year. GBR responds that they are currently in talks with WFN and LSFN regarding a letter of permission to support this work.	Engagement not related to Project
C-02055	23/12/04	Impact Assessment Agency of Canada (IAAC)	Email	Email received from IAAC to coordinate a meeting to discuss the SOI and our draft DPD.	
C-02059	23/12/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Minister’s stakeholder management team.	Engagement not related to Project
C-02110	23/12/05	Ontario Ministry of Energy & Mines (MOEM)	Email	Ministry of Mines response with comments from their initial review of the draft Great Bear AEX CP.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02061	23/12/06	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR providing Ministry of Mines with the comment table for the initial review of the Great Bear AEX CP. GBR requests that MINES update the table and send it back with the revised CP. Comment topics revolved around the following: Project Information Project description Current project site conditions Rehabilitation measures - state of inactivity Rehabilitation measures - closed out Monitoring Costs Financial assurance	Engagement not related to Project
C-02062	23/12/06	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER)	Virtual	Meeting with Ministry of Northern Development and Indigenous Affairs to brief Minister's staff on our First Nations engagements, in particular, our communication history with ANA and challenges being faced.	
C-02441	23/12/06	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	In Person	Meeting with the MNRF and MECP. Discussion surrounding Research Plot discussions on the MNRF side, with an update of the project given by GBR. The meeting further discussed the receipt of applications for Crown land and geotechnical, with the MNRF asking if there is anything else GBR needs reviewed by the MNRF. Further review of various GBR permits and applications were confirmed. GBR asked MNRF if there is anything to be done to help move the process along. MNRF confirmed that they might request additional information and questions via email during review if they have any.	
C-02442	23/12/06	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Responses to MECP question further comments on the Ambient Air Monitoring Program, where the question MECP asked surrounding co-locating is answered.	Engagement not related to Project
C-01969	23/12/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Follow-up from GBR to the MECP to confirm timeline for the review of the ECA ISW, and PTTW. Support was given in case it was needed to MECP, along with a request for vendors which currently have mobile ECA's in place for portable temporary TSS water treatment plans. Confirmation from the MECP that they are targeting December for feedback on the Groundwater Monitoring Report, and to expect other expected comments during this time as well. MECP confirmed a timeline shift due to delays. Further clarification was requested regarding the proposition proposed by GBR to submit to the EA and Permissions Division to submit in line with current deadlines.	Engagement not related to Project
C-02103	23/12/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Sharing of the Ambient Air Monitoring Program used to measure parameters for air emissions prior to mine development and operation. MECP responded after review and sent comments. Comments were addressed by GBR and WSP. MECP confirmed there was no further comments on the revised air monitoring plan.	Engagement not related to Project
C-02328	23/12/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR shared a proposal with MECP management and let them know that the ministry has looked at the workload of technical staff and shifted some resources around. A new hydrogeologist has been hired as a resource to this file.	Engagement not related to Project
C-02100	23/12/11	Common Voice Northwest Energy Task Force Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Forwarding letter to GBR staff regarding the Common Voice Northwest Energy Task Force response which was sent to multiple Ministers on Nov 10. The letter seems critical of the energy policies of the Government of Ontario, and in particular critiques the need for a natural gas generator due to the lack of sufficient power capacity in Northwestern Ontario. Mention of other projects in the area, along with a proposal that Hydro One to construct new transmission lines or the construction and operation of a wood fiber biomass electrical generation facility to help serve the Great Bear project and other area needs. They are advocating for the region and project.	
C-02081	23/12/12	Impact Assessment Agency of Canada (IAAC)	Email	Feedback from IAAC on incorporating feedback from indigenous peoples.	
C-02285	23/12/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	As recent as today, with respect to the ESA, our colleagues at MECP indicated that MECP officials met with GBR December 6 to discuss the scope of the activities in the Advanced Ex plan and that MECP is now waiting for further information from GBR.	
C-02440	23/12/18	Ontario Ministry of Natural Resources (MNR)	In Person	Meeting between MNRF and GBR tied to Species at Risk, with key focus on wolverine needs. MNRF Notes that a Scientific Collection Permit will be required for the wolverine runpole installations, regardless of whether hair snagging is conducted. This permit, similar to those issued for small mammal trapping, presents an opportunity for community consultation. If engagement with affected communities has already occurred, it may expedite the permitting process. The application for the Scientific Collection Permit is to be submitted before January 8, with consultations to follow once First Nations return to their band offices. The estimated approval timeline is approximately six weeks. There are no anticipated conflicts with the Ministry of Natural Resources and Forestry (MNRF) regarding the wolverine runpoles. However, MNRF has expressed interest in obtaining the data collected, including wolverine presence and runpole locations. MNRF will not be conducting baiting or monitoring activities in the area in 2024. Existing MNRF data for wolverine does not cover the immediate project area but is typically available for regional and local study zones. The project's data collection will consider a minimum 50 km radius around the site. The closest MNRF-run wolverine monitoring locations are along Chukuni Road near Trout Lake and another near Nungessor, with additional details available from MNRF contacts. Regarding furbearer data, a trapper within the relevant trapping line reported an incidental wolverine harvest within the past decade, though further details on furbearer data sharing remain unclear. MNRF will consult with its information specialist to determine the availability of both furbearer and moose data. MNRF also has Eastern Whip-poor-will data from surveys	
C-02095	23/12/19	Ontario Ministry of Energy & Mines (MOEM)	Email	Sharing the Summary of Consultation report for the AEX closure plan with the Ministry of Mines	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-01178	24/01/01	Ontario Ministry of Energy & Mines (MOEM)	Other	Legislated timeline for approval post filing is 45 Days. Estimated Agency Approval- Mar 2024.	Confidential engagement
C-01183	24/01/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Other	Required to manage and discharge treated water back to the environment. All water that flows through or on the site will need to be collected and treated prior to discharging to the environment.	Confidential engagement
C-02528	24/01/04	Ontario Ministry of Natural Resources (MNR)	Email	MNRF requesting shared correspondence with ANA from GBR	
C-02341	24/01/10	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR providing to the Ministry of Mines separate shapefiles from what is off lease and what will be on lease and the on-lease test pit plans for your review.	
C-02340	24/01/11	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	Informing IAAC that the DPD will be delayed in submission until Jan 30th as a result of conversations with the WFN and the LSFN.	
C-02351	24/01/12	Red Lake Municipality	Email	GBR requesting to meet with the Red Lake Municipality staff to discuss GBR approach on community investment.	
C-02343	24/01/14	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Notifying Province (MECP) of a spill at one of our drill pads. The spill consisted of approximately 125 liters of hydraulic oil. No evidence of adverse impacts to the environment and fortunately the spill was cleaned up immediately after it was observed. Due to the size of this spill being >100 Liters, we have reported it to Spills Action Center (Ref# 1-4KY0AQ).	Engagement not related to Project
C-02347	24/01/16	Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	Was prepared in response to MNRF's letter which confirmed that MNRF has delegated the procedural aspects of the duty to consult to GBR for the Crown Forest Sustainability Act (CFSA) and Public Lands Act (PLA) Authorizations associated with the Great Bear Advanced Exploration Program. This document provides a summary of consultation undertaken by GBR in support of these authorizations.	Engagement not related to Project
C-02381	24/01/16	Red Lake Municipality	Email	Planning a meeting with Red Lake to discuss GBR's approach on community investment.	
C-02349	24/01/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing MECP photos of the spill and the cleanup of the spill. An internal investigation was completed in order to prevent reoccurrence of this event and the findings plus actions are detailed below. Findings of the investigation showed that the worker was unaware that the fill valve for the hydraulic tank was left open when starting the engine at the beginning of shift. A portion of the hydraulic system was piped differently then normal and the change to the piping of the hydraulic system on the drill was not known/communicated from the mechanic to the foremen/crews working on the rig.	Engagement not related to Project
C-02355	24/01/18	Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	Response to MNRF regarding the Delegation of Crown's Dusty to Consult, with follow-up concerning the confirmation between the proposed corridor and Hydro One Coordinator. Attached is the initial GBR AEX project summary document sent in July.	Engagement not related to Project
C-02439	24/01/18	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call with MNRF to discuss concern with Public Lands Act, and the addition of ANA to GBR's delegation of duty to consult. MNRF indicated that they are working on a path forward with Mines and would provide more information regarding options for GBR soon.	
C-02324	24/01/19	Red Lake Municipality	Email	Requested sustainability plan from Red Lake Municipality in follow-up to meeting, along with pointing GBR in the direction of who to contact regarding land and services and GIS Data. GBR extended their thanks for the meeting along with further information regarding permitting efforts and advancement of the AEX Program along with Power aspects.	Engagement not related to Project
C-02372	24/01/19	Red Lake Municipality	Email	Request for information from Red Lake regarding AEX and Power, GBR followed up and provided answers and promised to continue in answering any questions as the process continues.	Engagement not related to Project
C-02322	24/01/22	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR wishing the Ministry a quick note of thanks. We have completed the Mining Lease process and received our Mining Leases! This was a major milestone for our project, and we truly appreciate all the work that went into getting this sorted in time.	
C-02323	24/01/22	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Thank you note to Ministry staff regarding the receipt of our mining leases.	
C-02377	24/01/22	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the AEX Closure Plan to the Ministry of Mines	Engagement not related to Project
C-02437	24/01/22	Ontario Ministry of Natural Resources (MNR)	Email	Email follow-up from MNRF regarding road maintenance phone call which took place earlier that day. MNRF confirmed that a work permit under the PLA is not required for minor maintenance on a road on Crown land regardless of if it is within a Forest Management Plan. A list of defined exceptions was provided to GBR.	
C-02438	24/01/22	Ontario Ministry of Natural Resources (MNR)	Phone Call	Phone call with the MNRF regarding the concerns to the Public Lands Act being the legislation for the land tenure relating to MINES. MINES mentioned shoreline alienation on Chukuni where the diffuser is planned, with the MNRF to work on what that means. MNRF is still working alongside MINES to determine the path forward. Additional clarity was requested by GBR concerning the roads and maintenance.	
C-02329	24/01/25	Ontario Ministry of Energy & Mines (MOEM)	Email	Update to senior officials with current schedule for AEX. Focus on closure plan.	Engagement not related to Project
C-02330	24/01/25	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Providing Pirie's staff with latest permit schedule so that they can track officials work on this.	
C-02348	24/01/25	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR send MECP information related to the ECA ISW Permit Application for Approval Branch review. MECP has responded that they have received the files and the groundwater feedback and will do a quick review. The MECP followed up with comments from their surface water specialist and hydrogeologist.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02365	24/01/26	Ontario Ministry of Natural Resources (MNR)	Email	GBR request to schedule a meeting with the MNRF to discuss options for the tree clearing of the easement areas and discuss the Chukini Shoreline Alienation and understand how to support the needs and what needs to be done during and after construction.	
C-06370	24/01/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the Wolverine Obs to the MECP in support of SAR.	Engagement not related to Project
C-02435	24/01/31	Ontario Ministry of Environment, Conservation and Parks (MECP)	In Person	MECP conducting a PTTW compliance inspection followed by a site inspection on drilling operations, and the clean-up of the 125L reported spill.	Engagement not related to Project
C-02397	24/02/02	Ontario Ministry of Energy & Mines (MOEM)	Email	Email to mining recorder including four Notice of Intent to lease mining claims at the Great Bear Project near Red Lake.	
C-02451	24/02/02	Ontario Ministry of Natural Resources (MNR)	In Person	Meeting between GBR and the MNRF to discuss Work Permits, Land Use Permits, and FRL. MNRF had no update on the shoreline alienation nor the forest plot relocation strategy but agreed to maintain contact and follow-up when there was progress.	
C-02553	24/02/02	Ontario Ministry of Natural Resources (MNR)	In Person	Meeting discussed land tenure and that the public lands act was not the appropriate legislation to use for the FRL and that an LUP shouldn't be issued under the public lands act if it is mining related. All mining related infrastructure should be on lease land.	
C-02394	24/02/05	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the Surface Water comments related to the ECA ISW to the MECP, along with an updated regarding the progress and time for the MECP to expect the PTTW Groundwater Comments.	Engagement not related to Project
C-02449	24/02/05	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP thanking GBR for help during last week's inspection and requesting files to complete the PTTW Inspection. GBR sent the requested files.	Engagement not related to Project
C-02391	24/02/07	Chukuni Communities Development Corporation Ear Falls Municipality Red Lake Municipality	Email	GBR initiating contact with Red Lake, Ear Falls, and CCDC staff to initiate a meeting and work out local accommodations for a meeting on considerations for the upcoming Advanced Exploration Program.	Engagement not related to Project
C-02408	24/02/07	Red Lake Municipality	Email	Follow-up to phone call with GBR and Red Lake CAO regarding the legislation on the Municipal Accommodation Tax which restricts establishments from charging 4% MAT on stays longer than 30 days. Red Lake thanks GBR for their commitment to provide MAT on rooms rented for extended periods of time so the Municipality does not lose funding.	Confidential engagement
C-02530	24/02/07	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	MNRF asking GBR the area where the proposed gas line will also be moving from mining claims to lease. GBR will be asking Enbridge to own the entire line until it gets to our lease land and the metering station.	
C-02558	24/02/07	Ontario Ministry of Natural Resources (MNR)	Email	GBR asked MNRF about existing work permits for 4 culverts. GBR highlighted that some of these culverts have been impacted by flooding, and other factors. GBR is looking to have these issues fixed before April in order to prevent further issues with sedimentation or erosion. GBR asked if a new permit should be submitted, as the current ones expire in September. MNRF replied stating that the permits for the construction/installation of these expired in 2020, meaning that a new work permit will need to be issued prior to any replacement, along with the process needed to apply for a work permit.	
C-02558	24/02/07	Ontario Ministry of Natural Resources (MNR)	Email	GBR asked MNRF about existing work permits for 4 culverts. GBR highlighted that some of these culverts have been impacted by flooding, and other factors. GBR is looking to have these issues fixed before April in order to prevent further issues with sedimentation or erosion. GBR asked if a new permit should be submitted, as the current ones expire in September. MNRF replied stating that the permits for the construction/installation of these expired in 2020, meaning that a new work permit will need to be issued prior to any replacement, along with the process needed to apply for a work permit.	
C-02450	24/02/08	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Request for clarity from the proposed gas line will also be moving from claims to lease. GBR provided follow-up regarding their commitment to follow up with Enbridge, and then resubmit applications in two packages to provide clarity to the MNRF in light of the land lease.	
C-02523	24/02/09	Red Lake Municipality	In Person	In-Person meeting at the Kenora District Municipal Association Conference between Red Lake Municipality and GBR. RLM were appreciative of GBR's approach to paying municipal accommodation tax and their ongoing commitment to drive it into contractors working onto the Project. Red Lake also noted a formal request from the health committee to discuss specific considerations for GBR in the short term. Red Lake also discussed further working with Red Lake on community investment considerations. Red Lake have also confirmed their continued dedication to voicing support for development on this project, and that there is still further development needs to be considered such as housing.	
C-02524	24/02/09	Ear Falls Municipality	In Person	In person meeting at the Kenora District Municipal Association Conference between GBR and Ear Falls Municipality. Ear Falls noted that GBR's community presence would be helpful, and that GBR will be revieing their community investments and long-term programs. Ear Falls also noted that there are vacant parcels which would align for the goal of additional residential development needed.	
C-02525	24/02/09	Township of Machin	In Person	In-Person meeting between GBR and the Township of Machin at the Kenora District Municipal Association Conference. Machin staff confirmed their interest in delegation and in supporting business and potential for staging location within the Township. Further correspondence will take place between GBR and Machin.	
C-06392	24/02/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the photos of the removed AOC area, confirming where the sump overflow has stopped/dissipated and added coordinates. GBR confirms that there will be an additional focus on this area as the thaw begins and ensuring that any additional erosion and sediment control measures are installed to stop any potential sediment from entering into the creek come spring.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-06393	24/02/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the PTTW Audit Spreadsheet for the 2023 tracking year. The MECP had issues with the distributed files and these had to be re-sent to the MECP. The files were sent so the MECP could complete the PTTW inspection.	Engagement not related to Project
C-02460	24/02/10	Ear Falls Municipality	Email	Request from Ear Falls Councilor for GBR External Relationship Manager's cellphone number.	
C-02423	24/02/12	Lac Seul First Nations Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Letter	Letters signed by LSFN and WFN leadership being sent to Ministry of Mines supporting AEX Permitting of ECA Air, Closure Plan, ECA ISW, and PTTW. Follow-up from GBR included thanks to the EMC team copied for their hard work in obtaining these support letters.	Engagement not related to Project
C-02453	24/02/12	Thunder Bay Community Economic Development Commission	Email	Communication regarding Thunder Bay's upcoming PDAC. Thunder Bay sent a link to their event and offering two tickets to Northern Ontario Night. GBR thanked Thunder Bay, and asked for a meeting outside of the event.	
C-02458	24/02/12	Ear Falls Municipality	Email	Connecting with Ear Falls to discuss upcoming plans for accommodation considerations regarding the AEX program. GBR reached out regarding local room vendors and additional considerations for rooms and lodging. Ear Falls replied with a list of local accommodations.	Engagement not related to Project
C-02462	24/02/12	Ear Falls Municipality	Email	Follow-up thanking Councilor of Ear Falls for his accommodation recommendations in response to a request for the AEX team.	Engagement not related to Project
C-04250	24/02/13	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Transportation (MTO)	In Person	Meeting between GBR, MNRF, MTO, MECP, and MINES. GBR provided an update of AEX, with MINES requesting further clarity on timelines. MINES discussed possibly setting up a meeting with ANA, with all the information GBR previously provided. MINES confirms that they cannot commit to any timelines for review at this time. MECP want to know confirmed timing on the proposed forestry clearing, with GBR to send the MECP the new complied work permit application. Further details regarding the mine lease and timelines were discussed. The MNRF also stated that when the closure plan gets finalized, the MNRF can issue the FRL for the Pipeline ROW.	Engagement not related to Project
C-02448	24/02/14	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of GBR's response to MECP comments regarding the PTTW. GBR requested that if there are any further comments a call be set up to review any additional concerns in order to keep aligned with the timeline and formally submit the PTTW application to the Approvals Branch by the end of next week.	Engagement not related to Project
C-02457	24/02/16	Red Lake Municipality	Email	Coordination of meeting between GBR and Red Lake at PDAC.	
C-02459	24/02/16	Ear Falls Municipality	Email	Communication from Ear Falls councilor regarding accommodations in Ear Falls	
C-06481	24/02/16	Red Lake Municipality	Email	Setting meeting with Mayor Mota at PDAC	
C-06503	24/02/16	Red Lake Municipality	Email	GBR team asking if there is any additional strategic or supporting documentation (minutes) related to the ongoing work the Committee is doing, and their approach in physician recruitment.	
C-07573	24/02/16	Red Lake Municipality	Email	GBR supporting the request for physician recruitment. In reviewing the Red Lake municipal website, the current mandate for the Red Lake Health Committee is posted (attached). GBR requests additional supporting documentation speaking to the ongoing work the Committee is doing, and their approach in physician recruitment.	
C-02463	24/02/20	Red Lake Municipality	Email	Health Care request for physician recruitment in Red Lake from Red Lake Municipality, GBR confirmed receipt and confirmed they would get back to Red Lake.	
C-02511	24/02/20	Township of Machin	Email	Request to meet from Municipality of Machin to discuss the possibility of potential opportunities and the possibility of working together with GBR. GBR proposed a time to meet which was agreed upon.	
C-06431	24/02/20	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP thanking GBR for their cooperation during the PTTW Inspection of the Great Bear Early Exploration. The MECP sent a copy of the PTTW Inspection Report.	Engagement not related to Project
C-02516	24/02/21	Thunder Bay Community Economic Development Commission	Email	Thunder Bay following up with their invitation of GBR to their PDAC event in proposing a potential in person meeting. GBR proposed a time, and Thunder Bay followed up with confirming their availability.	
C-02527	24/02/21	Ontario Ministry of Natural Resources (MNR)	In Person	GBR meeting with MNRF. The GBR has requested an update for a meeting between MNRF and MINES, confirming MNRF would push this. MNRF also confirmed that they have an internal meeting to discuss what needs to be done to mitigate or revoke the shoreline alienation on the Chukuni River, and will be in contact afterwards to discuss. Further discussion touched upon the NG line ROW which goes along Tuzyks Road, and further specifics regarding the road.	
C-02529	24/02/22	Township of Machin	Virtual	GBR meeting with the Town of Machin; GBR provided a general update on the Project, noting current pending submission of permits and documentation to support the AEX activities. Machin and GBR confirmed they will share procurement, business directory, and accommodation information with each other, with Machin to pass this on the Machin's Economic Development Committee. Machin stated that they are open to working with GBR on various opportunities going forward.	Engagement not related to Project
C-02531	24/02/22	Township of Machin	Email	Follow-up email to Machin from GBR after their February 22nd meeting. GBR sent their thanks, and sent their vendor interest form alongside an agenda for an upcoming networking event from CRIBE which might be of interest.	
C-02532	24/02/22	Township of Machin	Email	Follow-up email from the February 22nd meeting of GBR and the Township of Machin. Machin sent their Official Plan document, 2017-2022 Community/Economic Development Strategic Plan, 2023-2027 Economic Strategic Plan, Community Improvement Plan, and a link to their business directory, which includes accommodations.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-02533	24/02/22	Ontario Ministry of Natural Resources (MNR)	Email	MNRF Response to questions surrounding Tuzyks Road's ownership. MNRF stated there is not intent to transfer the responsibility for this road, as it is required in order for forestry operations within the long-term. Additionally, the proposed name change for the road would need to be discussed with the Red Lake Forest Management Company, who can change the name with an amendment to the FMP.	
C-04249	24/02/22	Ontario Ministry of Environment, Conservation and Parks (MECP)	In Person	MECP meeting with GBR to discuss a working group discussion for the PTW condition which outlines a 10 cm drawdown in surface water sources from pre-pumping levels. MECP previously discussed how there have been past meetings with the technical review team, and that due to the variety of water taking, it is hard to give a yes or no answer on compliance at this time. MECP promised further follow-up will be had prior to the full PTTW review.	Engagement not related to Project
C-09673	24/02/22	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting guidance on engineering drawing regarding the inclusion of roads as opposed to trails.	
C-02504	24/02/23	Ontario Ministry of Natural Resources (MNR)	Email	GBR inquiry on the legal name of Tuzyk's Road and would it be possible to change it to Great Bear Road. Government of Ontario informed GBR there is no intent to transfer responsibility for this road as it will be required in the long-term for access to harvest on the Red Lake Forest (Road Use Strategy RUS-4). A name change for this road would require a discussion with the Red Lake Forest Management Company; if they were receptive to this name change, an amendment to the FMP would be required to update the name. As this would be required to go through consultation, there may be opposition from stakeholders on a name change for this road.	
C-02535	24/02/23	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call between GBR and MNRF, MNRF updated GBR that they are working on getting the meeting with MINES scheduled. MNRF indicated that the FRL is currently under review. MNRF also highlighted key considerations regarding wording on future applications. MNRF agreed that once we had the closure plan they could issue a PTR (Permit to Remove). They indicated that the alignment was under review by lands at the moment.	
C-02562	24/02/23	Ontario Ministry of Natural Resources (MNR)	Email	MNRF reaching out to GBR to obtain the contact information for the Community Relations Representative to get the most recent Open House presentation for MNRF Review and records as they were unable to attend the latest event.	
C-09290	24/02/23	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	GBR updates and requests a permitting progress meeting.	
C-06371	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the Baseline - Trail Cameras to the MECP in support of SAR.	Engagement not related to Project
C-06372	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the Point Counts for the baseline study relating to SAR support.	Engagement not related to Project
C-06374	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing ARUs as part of baseline studies to the MECP in support of SAR.	Engagement not related to Project
C-06375	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing Aerial Surveys as part of baseline studies to the MECP in support of SAR.	Engagement not related to Project
C-06376	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the AEX Noise Assessment Report for the Class EA Temporary Power in support of SAR.	Engagement not related to Project
C-06377	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the AEX Underground Shapefile	Engagement not related to Project
C-06380	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sending MECP the MNRF Application for Off Lease Activities including shapefiles.	Engagement not related to Project
C-06382	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR responding to the questions regarding the AEX, and Species at Risk proposed by the Species at Risk Branch (SARB) of the MECP. GBR also confirmed that the SARB has been sent MNR Applications On Lease including Shapefiles, MNR Applications Off Lease including Shapefiles, ARX Underground Shapefile, AEX Noise Assessment Report for Class EA Temp Power, Baseline Shapefiles as requested in Question # 8	Engagement not related to Project
C-06383	24/02/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the MNR Applications for On Lease Activities to the MECP.	Engagement not related to Project
C-02526	24/02/28	Municipality of Dryden	In Person	GBR In-person meeting with the City of Dryden at the Kenora District Municipal Association Conference. The City of Dryden are interested in a delegation, and that further housing is under development.	
C-07514	24/02/28	Red Lake Municipality	Email	Confirmation from the Municipality of Red Lake's Mayor that they will be attending the 9:30am meeting at the GBR offices in Toronto on March 5th during PDAC.	
C-07518	24/02/28	Ear Falls Municipality	Email	Coordination of a meeting between GBR and the Municipality of Ear Falls in Toronto during PDAC.	
C-07519	24/02/28	Ear Falls Municipality	Email	Inquiry from Ear Falls to discuss a request during the PDAC meeting scheduled with GBR.	
C-06511	24/02/29	Headwaters LLP Lac Seul First Nations Red Lake Municipality Shared Value Solutions Wabauskang First Nation Woodward and company	Email	Clarity on communications with Share Sprits regarding further communications. Shared Spirits requests that going forward their CEO and manager are CC'd on communications with LSFN and WFN.	
C-04226	24/03/04	Lac Seul First Nations Ontario Ministry of Natural Resources (MNR)	Email	Initial conversation between LSFN and GBR regarding the clearing area, and giving priority to the specified area on the map in forestry clearing. LSFN confirms they will identify Priority one as GBR had asked. GBR relayed the clarification which has caused delay in sending the Letter of Support from LSFN. MNRF replied stating they will relay this to the review team.	
C-07521	24/03/04	Ear Falls Municipality	Email	Confirmation from Ear Falls Mayor that they are on their way to the proposed meeting with GBR at PDAC.	
C-04278	24/03/05	Ontario Ministry of Natural Resources (MNR)	In Person	GBR met with senior political staff at the Ministry of Natural Resources to provide a project update and to discuss the status of the Forestry Resource License.	
C-04282	24/03/06	Ontario Ministry of Energy & Mines (MOEM)	In Person	GBR met with senior Civil Service staff at the Mines to provide a general permitting update and to discuss the status of our Closure Plan filing.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-04279	24/03/07	Asubpeeschoseewagong Netum Anishinabek Impact Assessment Agency of Canada (IAAC) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	Letter	ANA issued communication and memorandum report on their preliminary concerns about the Great Bear Project. Letter issued to GBR, Ministry of Mines and IAAC. In the letter, ANA explains their deep concern about the project and the impact it will have on the community. ANA formally rejects the Great Bear Project, asserting its inherent jurisdiction and governance over its lands. ANA opposes all permitting and approvals, citing environmental risks to water, wildlife, and traditional land use. It emphasizes a long-standing commitment to resisting industrial resource extraction and insists that no consultation or mitigation can justify the project. ANA demands that federal and provincial authorities respect Anishinaabe law and governance, reaffirming its sovereignty and right to self-determination.	IAAC_030724_01
C-06389	24/03/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR proposing a potential compromise regarding the PTTW and ECA applications under consideration by the MECP. The inclusion of an additional condition in the permit was proposed to have approved triggers for GW monitoring within a reasonable timeline and potentially prior to the operation of works, which will allow for GBR to submit the Permits to Approvals Branch immediately with the Record of Consultation and mitigate any potential delays. It would also allow for GBR to initiate the construction of the works while allowing any potential time for the review of determining the monitoring triggers. GBR further sets out that this has been done before, and that further review has been done with the First Nation Engineering consultants.	Engagement not related to Project
C-06390	24/03/07	Asubpeeschoseewagong Netum Anishinabek Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	Correspondence attached from the Chief and Council of ANA concerning the Great Bear Gold Project. The letter explains ANA's views on the Crown's outstanding obligations to ANA, and the ANA concerns surrounding the process of Ontario's current approach, and the path to reconciliation. The letter also highlights ANA preliminary specific concerns regarding the downstream, and on-site, landscape, spiritual, and other impacts.	
C-07403	24/03/12	Thunder Bay Community Economic Development Commission	Email	Following up email with Thunder Bay Community Economic Development Commission regarding the addition of GBR to the distribution list for the Common Voice Northwest Task Force.	
C-06501	24/03/14	Red Lake Municipality	Email	GBR requesting a follow-up meeting on a conversation from PDAC: Housing studies and alignment to work related to housing options, housing accelerator fund, and potential joint alignment in dialogue with industry partners (Evolution, WRL etc.). GIS information related to zoning, official planning, and Crown Land acquisition goals. All relevant information related to vacant plots (commercial, residential, industrial), and current surplus registry if any. Additional information related to the planned 60-unit development, location (GIS information), infrastructure, and key milestones/scope related to the development.	
C-07516	24/03/14	Red Lake Municipality	Email	GBR asking a few questions to Red Lake Municipality in follow-up of the PDAC meeting surrounding housing options, and information regarding zoning and official plans along with any vacancies, and additional information regarding the planned 60-unit development. GBR proposed that a follow-up meeting will likely be on the path forward, and that any help Red Lake can give is greatly appreciated.	
C-07536	24/03/14	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR providing Ministry of Mines the consultation report of the Record of Consultation with ANA along with where to find access to the SharePoint Site.	
C-06407	24/03/15	Northern Bioscience Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	GBR following up with the MECP and thanking them for their time to meet last Wednesday. GBR will commit to surveying trees in the AEX for bat roosts and in the area surrounding for wolverine denning this year. Conditions from the MECP on this, the pipeline and any other works can be addressed in a Letter of Assurance to address any SAR concerns, without a Species at Risk Permit to clear in the May to August window. GBR also reiterated that due to previous extensive baseline data collected, the odds of wolverine dens are exceedingly low, along with bat roosts. GBR asked if there is any level of survey which would alleviate any fears of potential impacts for MECP concerns.	Engagement not related to Project
C-07538	24/03/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	MNRF response to GBR's inquiry regarding the on-lease and off-lease PTR activity after being split into two separate information packages. GBR also reiterates that they understand that the Closure Plan needs to be officially filed with the MoM prior to any activity being allowed to occur. MNRF responded than once the Closure plan has been filed, MNRF can issue the PTR for the entire project once their RA and consultation have been deemed complete. MNRF also stated that they will do the best they can in order to have everything completed and align with the filing of the closure plan.	
C-07539	24/03/15	Northern Bioscience Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	GBR email to MECP thanking them for their time last Wednesday and confirming that due to the number of trees they will be able to survey each tree for bat roots and see if there was any wolverine denning in the area. GBR asks if any level of survey would be enough to alleviate fears of potential impacts regarding the need for a SAR permit.	
C-07537	24/03/18	Ontario Ministry of Energy & Mines (MOEM)	Email	Providing the link with ANA attachments to support the Record of Consultation via SharePoint.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-07541	24/03/18	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of a letter summarizing the engagements between GBR and ANA compared to the letter recently received from ANA to the Ministry of Mines	
C-06416	24/03/19	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the GBR response to the Closure Plan from previous comments from Mines. GBR inquired if there are any further technical comments expected from them on the closure plan. Mines responded stating that they will have more information by next week, and they are expecting comments from one more of the rehabilitation specialists.	
C-06430	24/03/19	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR confirming with the MECP that they would still be open to considering the inclusion of a condition related to development of groundwater triggers prior to any water taking in the PTTW. GBR outlined how and when the outstanding tech requirements will be done, as outlined within the memorandum and during the meeting on March 6, 2024. GBR is confirming they went a step further and have provided the data and technical requirements as requested. GBR asks MECP if they would then be able to submit this request to the approvals branch.	Engagement not related to Project
C-06400	24/03/20	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the requested PTTW supporting files in support of the MECP's PTTW Inspection. Additionally, GBR further details the attachments such as photos taken at the shore of the creek to confirm the absence of cuttings and confirm the exact coordinates. GBR also stated that the highlighted areas in the photos will have a larger focus to ensure erosion and sediment control measures are put in place to stop any additional sediment from entering the creek.	Engagement not related to Project
C-07554	24/03/20	Ontario Ministry of Energy & Mines (MOEM)	Virtual	Meeting between GBR and the Ministry of Mines to discuss the ANA letter which was sent to both parties along with IAAC. The meeting discussed the proposed timelines for the project and MoM's approval alongside the letter sent from ANA regarding consultation on the project.	Engagement not related to Project
C-07581	24/03/20	Ontario Ministry of Natural Resources (MNR)	Phone Call	MNRF discussion regarding PTR (Permit To Remove). The permit will be assessed as a whole (on and off Lease) and no work permit or land use will be needed as all activity requested is on lease.	
C-09286	24/03/20	Ontario Premier's Office (OPO)	Email	Introduction of OPO who leads the Mining, IAO and MAG file within the PO. OPO will share permit and status schedule with Ministries in the meantime. OPO provided a table with updates on key permits and the consultation record with ANA consultation spectrum for the advanced exploration permit.	
C-06494	24/03/21	Ear Falls Municipality	Email	GBR requesting some additional information/data from the municipality related to: GIS information related to zoning, official planning, and Crown Land acquisition goals. All relevant information related to vacant plots (commercial, residential, industrial), and current surplus registry if any. Current shovel ready projects. Current planned studies in 2024/2025. The municipality was unable to provide GIS information but was able to provide the OP and ZBAs.	
C-07552	24/03/21	Impact Assessment Agency of Canada (IAAC)	Email	GBR requesting from IAAC the opportunity to have a quick check in on the process and specifically to have a conversation to understand Agency expectations regarding indigenous / traditional knowledge and other inputs from First Nations and in what manner that may find its way into the guidelines. A meeting was planned on either March 25th or March 28th.	
C-07572	24/03/21	Ontario Ministry of Energy & Mines (MOEM)	Email	Ministry of Mines sending GBR comment table and memo from MINES' Geoscience review for the closure plan technical response.	
C-07579	24/03/21	Red Lake Municipality	Email	Red Lake following up with GBR regarding the follow-up email sent to Red Lake after their PDAC meeting with GBR. A Teams meeting was sent out by GBR for March 26th.	
C-07840	24/03/21	Ontario Ministry of Energy & Mines (MOEM)	Email	Ministry of Mines' attaching the comment table and memo from their Geoscience review of the closure plan.	
C-07841	24/03/21	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR thanking Mines for their closure comments, and confirming they will get back to them with responses soon.	
C-07555	24/03/22	Great Bear Gold Project Projet Aurifère Great Bear Wabauskang First Nation	Email	The Impact Assessment Agency of Canada (Agency) is of the opinion that a federal impact assessment is warranted for the Great Bear Gold Project, as proposed by GBR (the Proponent). This opinion is based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public.	IAAC_032224_01
C-07569	24/03/22	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear	Email	The Impact Assessment Agency of Canada (Agency) is of the opinion that a federal impact assessment is warranted for the Great Bear Gold Project, as proposed by GBR (the Proponent). This opinion is based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public.	IAAC_032224_03
C-07570	24/03/22	Great Bear Gold Project Projet Aurifère Great Bear Metis Nation of Ontario	Email	The Impact Assessment Agency of Canada (Agency) is of the opinion that a federal impact assessment is warranted for the Great Bear Gold Project, as proposed by GBR (the Proponent). This opinion is based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public.	IAAC_032224_05

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-07571	24/03/22	Great Bear Gold Project Projet Aurifère Great Bear Lac Seul First Nations	Email	The Impact Assessment Agency of Canada (Agency) is of the opinion that a federal impact assessment is warranted for the Great Bear Gold Project, as proposed by GBR (the Proponent). This opinion is based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public.	IAAC_032224_07
C-07842	24/03/22	Ontario Ministry of Natural Resources (MNR)	Email	MNRF asking if it would be possible to schedule a phone call regarding gathering insight on the proposed areas being cleared and the meeting with ANA.	
C-06493	24/03/25	Ear Falls Municipality	Email	Town of Ear Falls requesting for the registration form for the 2024 Family Safety Night to be completed and returned.	
C-07513	24/03/25	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR requesting from MINES to share the Interim Area of Interest Mining Map that was referenced in the letter from ANA with GBR.	
C-07532	24/03/25	Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Phone Call	Discussed the amount of trees already cleared under the FMP and the amount of trees remaining to be cleared. Discussed Engagement with ANA.	
C-06487	24/03/26	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	ANA reiterated concerns regarding the permitting process for the Great Bear Gold Project to the Ministry of Mines and copied Great Bear, emphasizing the significant barriers that prevent meaningful engagement. Despite repeated communications about these challenges, ANA expressed concern that MINES will proceed without addressing them. The proposed advanced exploration activities are extensive and akin to opening a small to medium-sized mine, with significant potential impacts on water quality, fish, wildlife, and ANA's rights and interests. Of particular concern is the risk of mercury methylation, given the existing contamination in the river system. A preliminary review of the permit application revealed substantial gaps in information, particularly regarding the release of substances into the environment and their effects on downstream communities. ANA asserts that free, prior, and informed consent (FPIC) is required and requests additional time and capacity support to conduct a thorough assessment. The community cautions that its inability to respond in detail at this stage should not be misinterpreted as a lack of concern. The consultation process has been flawed from the outset, with MINES erroneously assessing the duty to consult as "low," failing to seek input from ANA on its rights and land use, and improperly delegating consultation to GBR. The assessment overlooked key factors, including ANA's historical and ongoing use of the project area for hunting and other activities, its position as the first downstream community, and the severe cumulative effects the community has already endured. Despite recent developments, MINES has not committed to addressing cumulative impacts, land-use control, or other broader concerns raised by ANA.	Engagement not related to Project
C-07531	24/03/26	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	Attachments from Chief and Council of Asubpeeschoseewagong Netum Anishinabek, concerning the Great Bear Gold Project including the following: ANA Juridical Review Application Records, Papers on Mercury Exposure, ANA Child Report, ANA Interim Core Area for Mining. This communication was in follow up to letter communication issued previously to the Ministry of Mines.	
C-07545	24/03/26	Northern Bioscience Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	GBR confirming with MECP whether any level of survey would be sufficient to alleviate concerns raised by the MECP for the SAR proposal. The GBR proposed approach, combined with the Letter of Assurance, would address any potential impacts effectively.	
C-07547	24/03/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	90 day report submitted to MECP (Matt Hoffmeister) to comply with Early Exploration Permit to Take water.	Engagement not related to Project
C-07526	24/03/27	Northern Bioscience Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	Ministry of Environment Conservation and Parks' (MECP) Species at Risk Branch's (SARB) understanding is the Ministry of Natural Resources and Forestry (MNRF) intends to issue one Permit to Remove (PTR) for all necessary clearing required both on and off lease once the AEX closure plan has been filed.	Engagement not related to Project
C-07437	24/03/28	Lac Seul First Nations Red Lake Municipality Shared Spirits University of Victoria Wabauskang First Nation	Email	Reminder that the site tour will be an "Elder friendly" tour as there will be Elders attending from Wabauskang who have mobility issues. GBR recommends that there be another date set up for a tour for the youth and others who may be interested.	
C-06488	24/03/29	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	ANA issues communication to GBR and Ministry of Mines. Communication details ANA's evaluation of the expected water quality both during and after Advanced Exploration from the Minesite Drainage Assessment Group. The letter states that the project cannot be started with sufficient certainty of environmental protection and avoidance of all off site contamination due to missing, preliminary and contradictory ML-ARD information inconsistent with regulations. The email distributing the letter also stated that they continue to urge Mines/GBR to not make a decision until complete information has been provided and ANA's review is completed.	Engagement not related to Project
C-06641	24/04/02	Ontario Ministry of Energy & Mines (MOEM)	Email	Guidance received regarding the Build More Mines Act (BMMA).	
C-07717	24/04/02	Red Lake Municipality	Email	GBR thanking Red Lake Municipality for providing additional information regarding their discussion with the Chair of the Community Healthcare Committee.	
C-07721	24/04/02	Ear Falls Municipality	Email	GBR confirming to the Township of Ear Falls that they will be participating in this year's Family Safety Night. The Township responded thanking GBR for their participation.	
C-07843	24/04/02	Ear Falls Municipality	Email	Ear Falls thanking GBR for their participation in Family Safety Night.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-07667	24/04/04	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM)	Letter	ANA letter to IAAC in response to the March 22, 2024 correspondence to Chief Turtle advising the IAAC opinion that a federal assessment is warranted for the Great Bear Gold Project. ANA reaffirms its expectation that the consultation process for the Great Bear Gold Mine Project adhere to the standard of free, prior, and informed consent (FPIC), as outlined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and Canada's UNDRIP Act. ANA insists that the Impact Assessment Agency of Canada (IAAC) align the federal impact assessment process with the principles of FPIC, particularly in relation to projects impacting Indigenous lands and resources. Canada's endorsement of UNDRIP requires this standard of consultation, and ANA expects that the Agency respect its right to either provide or withhold consent throughout the process. The letter emphasizes several expectations for the impact assessment: the process must be co-created with ANA, tailored to their unique circumstances, and require ANA's consent. The Impact Assessment should be paused until the concerns expressed by ANA are addressed, and consent is obtained. Additionally, the assessment should include a determination of whether ANA's FPIC has been secured, and its scope must encompass all activities that could affect the Nation's rights and interests. The letter further stresses that no project-related impacts under federal authority should proceed without obtaining ANA FPIC. ANA requests a written response outlining how Article 32 of UNDRIP will be implemented in the impact	IAAC_040424_01
C-07668	24/04/04	Asubpeeschoseewagong Netum Anishinabek Impact Assessment Agency of Canada (IAAC) Ontario Ministry of Energy & Mines (MOEM)	Letter	GBR's response to ANA communication letters sent on March 6th, 2024 and March 27th, 2024. Great Bear distributed multi part response letter, citing the March 27th letter, a memo on the AEX program regarding the water and water quality, and project footprint, and the consultation record between GBR and ANA. GBR notes in communication that it acknowledges ANA's concerns outlined in the 6 March 2024 letter and seeks to establish positive relations with local Indigenous communities, including ANA, through transparent engagement. Great Bear is committed to explaining the Project, listening to community interests, and working to reconcile various perspectives. Many of the concerns raised by ANA are already included in the scope of the planned federal impact assessment, where they will be addressed. For concerns related to GBR's Advanced Exploration (AEX) Permit, GBR has provided specific responses. GBR will continue to engage with ANA throughout the project's review stages to gather input, inform planning, and address reasonable concerns.	IAAC_040424_02
C-07800	24/04/04	Red Lake Municipality	Email	Email from Red Lake regarding their upcoming Canada Day celebrations and plans. Red Lake is looking for interested businesses within the area to sponsor and be a part of the Canada Day events.	
C-07669	24/04/05	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR distributing the redline version of the Closure Plan Redline incorporating Mines comments, the Closure Plan Concordance Table with changes made based on Mines comments, the final closure plan, the table of comments from Mines with GBR responses, and supporting documents in reference to the Mines comments/response table.	
C-07670	24/04/05	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the finalized Closure Plan to ANA, along with re-sending ANA the letter distributed on March 27, 2024 and GBR's response. This document attached outlines GBR's response to the comments in the MSDAG Letter on behalf of Asubpeeschoseewagong Netum Anishinabek (ANA), particularly regarding the geochemical information in the Advanced Exploration Program Draft Closure Plan (AEX Program Draft CP). GBR has addressed these concerns in the table provided. Since submitting the AEX Program Draft CP, GBR has continued environmental baseline investigations, geochemistry programs, and engineering designs, incorporating new findings into the plan. While updates are being made to reflect the latest results, the overall project design and reclamation strategy remain unchanged. GBR is committed to meeting or exceeding regulatory requirements and will share the Final AEX Program Closure Plan with ANA once completed.	Engagement not related to Project
C-07718	24/04/08	Red Lake Municipality	Email	GBR following up on the information regarding the GIS data previously requested. Red Lake responded with the potential properties and the zoning information and water/sewer overlays.	
C-07826	24/04/11	Red Lake Municipality	Email	Red Lake Municipality sending GBR the completed Donation Form from their follow-up email to the RLM's Canada Day festivities.	
C-07675	24/04/12	Thunder Bay Community Economic Development Commission	Email	Request to the Thunder Bay CEDC to update some items on their website regarding the Great Bear Project. The TBCEDC thanked GBR for the updates, and confirmed the changes will be made soon.	
C-07828	24/04/12	Ear Falls Municipality	Email	The Township of Ear Falls sending a completed donation request for the annual Party in the Park/Canada Day 2024 celebrations.	
C-07673	24/04/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the Permit to Take Water Application for the Great Bear Gold Project to the MECP.	Engagement not related to Project
C-07833	24/04/15	Red Lake Municipality	Email	Request for sponsorship from Red Lake Municipality for the draw prize for residents who complete the Community FireSmart Challenge.	
C-07858	24/04/15	Ontario Ministry of Transportation (MTO)	Virtual	Meeting to discuss the detailed design of Madsen #19 Access Road, legal agreements, construction cost estimate and encroachment permit and entrance permit.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-07845	24/04/16	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	Mines calling GBR to inquire regarding the ROC and the delivery of values related information tied to vegetation species of interest. GBR staff noted that this was done but confidential, and sharing would need to be expressed by each of WFN and LSFN. Mines agreed and noted they are reviewing this in detail.	
C-07857	24/04/18	Ontario Ministry of Natural Resources (MNR)	Email	GBR responding to MNRF questions regarding ownership, and the harvesting for the Permit to Remove.	
C-07859	24/04/18	Ontario Ministry of Natural Resources (MNR)	Email	MNRF letting GBR know that the Red Lake LCC would be interested in seeing a presentation on the Great Bear Project, along with giving the next two meeting date, times, and location. GBR confirmed the June 3rd date to present to the LCC regarding this project.	
C-07860	24/04/18	Ontario Ministry of Natural Resources (MNR)	Email	GBR following up on the MNRF conversation regarding the MNRF Research Plot to follow-up with the MNRF and possibly have a reoccurring meeting to discuss on going permitting efforts relating to the project.	
C-07835	24/04/19	Red Lake Municipality Dillon Consulting Lac Seul First Nations Sapo'nuk Sustainability Shared Spirits Wabauskang First Nation	Email	Request and agreement to move the May EMC meeting to Thursday, May 16th to accommodate the Wabauskang Chief and Council meeting.	
C-07862	24/04/22	Ontario Ministry of Natural Resources (MNR)	Email	GBR distributing the Record of Consultation with WFN and LSFN pertaining to the Permit to Remove for tree removal in response to the MNRF's request to see communications regarding the PTR.	
C-08089	24/04/23	Independent Electricity System Operator (IESO)	In Person	GBR attendance at both Northern Ontario Municipal Association and Ontario Prospectors Exploration Showcase. The focus was on updates to general public on resource expansion, future exploration, and overall update on Project development at OPA. There was also a focus on healthcare challenges, workforce challenges, and overall Indigenous context at NOMA. Additionally, there was IESO dialogue and clear understanding from municipal delegates that infrastructure limits are a challenge with all regional projects.	Confidential engagement
C-09285	24/04/23	Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER)	Email	Documentation for GBR submitted and under review by Mines; follow-up with ministry office recommended for updates. GBR has submitted all documents including record of consultation; Government must determine duty to consult has been met to progress closure plan and summer construction.	
C-07731	24/04/24	Red Lake Municipality	Email	Red Lake Recreation and Activities Programmer following up on sponsorship request.	
C-07795	24/04/25	Asubpeeschoseewagong Netum Anishinabek Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Impact Assessment Agency of Canada (IAAC) Indigenous Services Canada Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) Ontario Ministry of Natural Resources (MNR)	Letter	Letter from ANA Lands Protection Team, concerning the Great Bear Gold Project directed to IAAC, and Mines and Great Bear in copy. The correspondence includes two documents prepared by Dr. Kevin Morin concerning metal leaching and acid rock drainage, water quality and hydrogeology. ANA raises their concerns regarding the Great Bear Gold Project, citing expert analysis from Dr. Kevin Morin of MDAG. MDAG findings highlight multiple environmental risks related to metal leaching, acid rock drainage, water quality, and hydrogeology, many of which he argues are either unrecognized or inadequately addressed by Great Bear. These concerns apply to both the advanced exploration phase and the proposed full-scale mining operation. ANA asserts that the project is advancing too quickly without sufficient environmental assessments, posing risks to the environment, public health, and the inherent, Treaty, and Indigenous rights of the community. They are calling for an immediate freeze on the regulatory process until comprehensive environmental data is available and meaningful Indigenous involvement is ensured. Additionally, ANA demands that the project, including what they consider extensive bulk sampling equivalent to full-scale mining, undergo a rigorous environmental assessment. Until these conditions are met, they maintain that moving forward with the project would be premature and irresponsible.	CIRNAC_042524_01
C-07836	24/04/25	Independent Electricity System Operator (IESO) Shared Spirits	Email	At NOMA Conference in Thunder Bay, IESO held a meeting with the Common Voice Northwest. The focus was on the potential of the project, the 2024 Budget and the bridge connection funding announced for Pikangikum. No commitments were made during the meeting.	
C-07672	24/04/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution to the Industrial Sewage ECA Permit Application for the Great Bear Gold Project.	Engagement not related to Project
C-07897	24/04/30	Ontario Ministry of Transportation (MTO)	In Person	Meeting with the Ministry of Transportation and GBR, which detailed the Hwy105 Road Construction Upgrade works at the Tuzyks Road, and Madsen #19 (Access Road to pit). GBR presented a detailed design for the road clearing, and additionally discussed construction proposals, permitting and the upcoming team meeting.	
C-07727	24/05/01	Member of Provincial Parliament	Email	GBR officially requesting meeting with MPP Mamakwa.	
C-07898	24/05/01	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of GBR responses to ANA's April 25th Letter. GBR provides a detailed response to several comments made in ANA's letter surrounding the project definition, geochemical characterization work plan, AEX reclamation strategy, closure plan, hydrogeological work plan, surface water quality, fugitive dust, and PTTW.	Engagement not related to Project
C-07903	24/05/07	Ontario Ministry of Energy & Mines (MOEM)	Email	Response to Ministry of Mines from GBR which provided documents referenced in the ANA consultation report. GBR responded by distributing the documents requested, along with a request for Mines to send the last technical comment on the Closure Plan from Mines for review.	
C-07808	24/05/08	Member of Provincial Parliament	Email	Meeting request to meet with the local MPP in order to discuss the Great Bear Project within their riding, following up with the discussion had previously at the NOMA conference.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-08255	24/05/08	Dillon Consulting Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Sapo'nuk Sustainability Wabauskang First Nation	Email	WFN distributing the agenda along with confirming the participation of IAAC for the upcoming May WFN Resource Day Session.	
C-07904	24/05/10	Ear Falls Municipality	Phone Messaging (SMS, WhatsApp, etc.)	Text messages from Township of Ear Falls regarding housing, and the possibility of implementing Modular Homes. Follow-up text indicated that the salesperson would be interested in setting up a show house.	
C-07911	24/05/10	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Comment regarding the Closure plan in the ANA communication record. ANA states that they did not receive the final closure plan. ANA also states that the SharePoint site does not comply with ANA's engagement protocols which they state have been communicated to GBR on multiple occasions.	
C-08048	24/05/14	Ontario Ministry of Natural Resources (MNR)	Email	GBR answering questions from the MNRF regarding the forestry research plots concerning their location, access areas, the inclusivity, involvement of the MNRF with these plots, health and safety training.	
C-09288	24/05/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Ontario Ministry of Energy reached out to MECP and asked MINES to connect with MECP for an update on water and industrial sewage permits to avoid miscommunication ahead of construction start.	
C-09289	24/05/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	GBR permit updates needed for Permit to Take Water and ECA-ISW; project aiming to start construction by July 1. Request to contact officials for current status, timelines and any remaining steps, noting technical work is largely complete.	
C-08051	24/05/16	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the Concordance Table from GBR to ANA in order to assist in their review of the most recent version in the Great Bear Project AEX Closure Plan along with the SharePoint link to the final Closure Plan previously provided on May 10, 2024.	Engagement not related to Project
C-08052	24/05/16	Ear Falls Municipality	In Person	GBR attended the Ear Falls Family Safety Night to represent Great Bear and highlight the Project. This presented a valuable opportunity to interact with Ear Falls community members, as well as to promote our current Community Feedback Survey. Overall, the atmosphere was positive and reaction to the Great Bear Project was positive and enthusiastic. One of the key lines of inquiry was in regard to timelines and future employment opportunities.	EFM_051624_02.pdf
C-08215	24/05/22	Municipality of Dryden	Email	Request from Dryden's Economic Development Manager regarding connecting with GBR. GBR provided a date, and Dryden proposed a time.	
C-08035	24/05/23	Ministry of the Environment, Conservation and Parks	Email	GBR providing MECP copies of responses to several letters sent to the Province from ANA with GBR copied on the correspondence. The responses to those letters to be included with the Record of Consultation provided for the ECA ISW and the PTTW currently under review. GBR also provide MECP with an updated record of communications with ANA regarding the Great Bear Project to further support the Record of Consultation provided with the applications.	
C-08221	24/05/23	Dillon Consulting Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Sapo'nuk Sustainability University of Victoria Wabauskang First Nation	Email	WFN forwarding the agenda of the upcoming WFN Resource Day meeting to presenters. Additionally, GBR was extended an invitation for GBR to stay at the WFN feast. GBR confirmed their number of attendees, and thanks WFN for the invitation.	
C-08240	24/05/23	Asubpeeschoseewagong Netum Anishinabek Crown-Indigenous Relations and Northern Affairs Canada Great Bear Gold Project Projet Aurifère Great Bear Indigenous Services Canada Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Letter	ANA letter detailing comments and documentation submitted via the Environmental Registry of Ontario as it relates to GBR's proposal #019-8598 and #019-8574. The comments states that the Project will have an adverse impact and will require an impact assessment, and highlighted the Crown's outstanding obligations to ANA, and continues in its reiteration that this should be resolved in a Nation-to-Nation process. ANA also reiterated their concerns about the process and the path to reconciliation. ANA provided preliminary comments pertaining to the breaches of Crown obligations, and the current capacity barriers, along with detailing specific concerns such as mercury in the ecosystem, land claims, and spiritual impacts.	
C-08064	24/05/27	Ontario Ministry of Natural Resources (MNR)	Email	MNRF stating that they have completed their engineer's review and are looking to meet something this week, but can extend out the meeting on Friday May 31st, 2024, in order to accommodate. GBR requested an extension for the Friday meeting and also mentioned some concerns regarding the work permit which was no longer necessary for the culverts and access road. Additionally, GBR requested clarification regarding the need for a work permit and the access road for the lease land, and the PTR from the MNRF.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-08252	24/05/28	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	GBR distributing the attached response to the Riverbank Mercury Methylation Study in relation to the Great Bear Project to ANA Lands Protection team for consideration. The study was included in the Prelim Comments -Supporting Materials-Great Bear AEX Closure Plan and Other Authorizations 4856-449v.1 which ANA sent to GBR on May 23, 2024. The response reiterates that these conditions in the study are not present in the Chukuni River, which is the proposed receiving environment for the effluent from the Great Bear Project, and that the conditions in the study which caused methylmercury to be present will not be sufficient to activate sulphate reducing bacteria, which then release methylmercury.	Engagement not related to Project
C-10000	24/05/29	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Energy & Mines (MOEM)	Email	Request from ANA to MINES regarding the June 10th deadline for comments for the AEX Closure Plan. ANA will need more time in order for expert responses to have a chance to prepare their reports. ANA reiterates their concern regarding the possibility of additional contributions of additional methylation to the river system. ANA urged MINES to provide a pause on the review of the Closure Plan until the end of June in order to accommodate ANA for the receipt of their expert's advice. ANA notes that if there is any potential for the Great Bear Gold project to contribute additional methylation to the river system, impacting on fish that travel throughout that system, is of significant concern to ANA and has the potential to have not just adverse but severe impacts on the community.	Engagement not related to Project
C-08061	24/05/30	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the comments on the Draft TISG to IAAC , and invited a meeting with the IAAC team to go over and discuss some of the comments.	
C-09034	24/05/31	Ontario Ministry of Natural Resources (MNR)	Email	Follow-up email sent to MNRF after the May 31st alignment meeting. GBR stated they will be providing the fuel management plan for culvert construction, roads, and tree clearing alongside the spill response and reporting procedure. The Mining lease was also provided in lieu of previous conversation. GBR stated that they are awaiting further clarity from the MNRF in follow-up regarding the need for a separate permit to built roads.	
C-08119	24/06/03	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	GBR arranging meeting with IAAC to discuss some comments on the TISG's. IAAC acknowledging and will send out meeting invite.	
C-08146	24/06/03	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC Great Bear team thanking GBR for their submission of comments on the TISG, and noting that they will be sending a meeting invitation as requested soon.	
C-08806	24/06/03	Chukuni Communities Development Corporation Ear Falls Municipality Keewatin Patricia District School Board Ontario Provincial Police Red Lake Airport Red Lake Hospital Red Lake Indian Friendship Centre Red Lake Municipality	Email	Changing the date for the Community Connections Meeting. The meeting has been rescheduled for June 13th from 1:00-2:30 PM.	
C-09036	24/06/03	Ontario Ministry of Natural Resources (MNR)	Email	GBR communicating to the MNRF regarding reports from staff of bears on site. A local trap line holder was called to observe the bear and reported some aggressive behavior. GBR requested MNRF to come to site to ensure everything is being done from a safety standpoint to prevent further incidents, and looking out on how to educate the field staff. MNRF confirmed they will visit Thursday, and expressed interest in taking some measurements of the bear. GBR provided the contact information for the trap line holder who will be able to provide more information.	
C-10001	24/06/05	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	MINES communication to ANA Lands Protection team that it is preparing a response to a May 23, 2024 letter from ANA. MINES had initially requested comments by June 10, 2024, regarding potential adverse impacts on ANA's treaty or Aboriginal rights due to the Great Bear Advanced Exploration Project's Closure Plan. In response to ANA's May 29, 2024 request for an extension, MINES has agreed to extend the deadline to June 30, 2024. This extension allows ANA's expert, Dr. Branfireun, additional time to review Great Bear Resources' May 28, 2024 response on the River Mercury Methylation Study. MINES hopes to decide by July 2, 2024, whether to invite the proponent to submit the Closure Plan.	
C-08907	24/06/06	Dillon Consulting Lac Seul First Nations Red Lake Municipality Sapo'nuk Sustainability SOAR Wabauskang First Nation	Email	WFN confirming they are agreeable with the fisheries application, and wish to participate in the fieldwork. No concerns presented by LSFN to date. GBR previously notified LSFN and WFN that they will be conducting ongoing aquatic surveys at the Great Bear Resources project during the summer. GBR ensuring that the permit application is shared, as well as offering the ability for members of the community to participate if interested.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-08542	24/06/07	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear	Email	The Lead Negotiator for the ANA Lands Protection Team provided GBR with ANAs initial comments on the Indigenous Engagement and Participant Plan for the Great Bear Gold Project Impact Assessment. These comments were submitted via the Agency's online Registry earlier today. Initial comments on the Tailored Impact Statement Guidelines have been submitted separately by ANA's co-counsel. ANA states they have not had enough time or capacity support funding to complete its review of the IEPP. ANA argues that 30 days is not enought to review and provide comments on the IEPP and other documents like the draft Tailored Impact Statement Guidelines. The Agency takes nearly a month to respond to short letters from ANA, even though it has extensive capacity and experience with this process. ANA repeats their request that the Impact Assessment process be paused until the concerns and barriers expressed in our previous letters have been resolved and ANA's consent for the Impact Assessment process is obtained.	Confidential engagement
C-08539	24/06/11	Ontario Ministry of Energy & Mines (MOEM)	In Person	GBR, in anticipation of obtaining approval to file the Closure Plan, requests if Mines could review the documents to ensure the beneficiary address are correct. Mines acknowledged the draft documents looked consistent to their guidance sent February 6, 2024.	
C-09111	24/06/11	Dillon Consulting Lac Seul First Nations Red Lake Municipality Sapo'nuk Sustainability Shared Spirits	Email	GBR suggesting deferring upcoming EMC meeting to June 24th due to other community and project events and meetings.	
C-09045	24/06/13	Ontario Ministry of Natural Resources (MNR)	Email	Response to MNRF stating they will have to reschedule the meeting for June 14th, but will be able to have a call with a member of staff tomorrow afternoon if further discussion is needed. GBR replied stating that they will call and touch base tomorrow.	
C-08540	24/06/14	Asubpeeschoseewagong Netum Anishinabek Lac Seul First Nations Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	MNRF providing GBR with a letter providing an update on the delegation of consultation. In the letter MNRF states that they are in the process of sending letters to WFN and LSFN to give them an update on the project status and status on the delegation. MNRF will continue to keep GBR updated as they receive comments from the communities. MNRF states that unless there are outstanding questions and concerns raised regarding the FRL/PTR and Work Permit, MNRF may be in a position to deem consultation with the communities listed above complete. MNRF continues to respond to ANA regarding the authorizations and Consultation.	Engagement not related to Project
C-09032	24/06/14	Ontario Ministry of Natural Resources (MNR)	Phone Call	Phone call with MNRF to discuss PTR, Work Permits for roads, the water works window for the Chukuni River, Shoreline Alienation, the Beaver Dam removal application submission, and the boat cache.	
C-08443	24/06/16	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Comments from CELA, co-counsel for ANA, on behalf of ANA on the PTTW. ANA states that the proposed PTTW should not be issued to GBR as they view, the PTTW is premature, unreasonable in light of the applicable law/policy framework and could result in significant environmental harm.	
C-08444	24/06/16	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR informing MECP that GBR was copied on the letter from ANA to MECP regarding PTTW. GBR inquiring if MECP needs any support from GBR to provide a response to the letter.	
C-08448	24/06/17	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	GBR copied on a letter to IAAC and Environment and Climate Change Canada, in which ANA states their preliminary position with respect to an aspect of the scope of the Great Bear Gold Project Impact Assessment. ANA believes that the Advanced Exploration ("AEX") activities proposed by GBR, specifically bulk sampling and associated activities, constitute a designated project under the Impact Assessment Act. ANA requests that the Minister chooses to suspend consideration of the designation requests, until the rules of the Impact Assessment process are clear and the Minister is able to consider designation requests that are needed to protect the environment and the rights, health, and wellbeing of Indigenous peoples.	Engagement not related to Project
C-08449	24/06/17	Asubpeeschoseewagong Netum Anishinabek Environment and Climate Change Canada	Email	ANA's request to the Minister of Environment and Climate Change to refer the impact assessment of the Great Bear Gold Project (Reference No. 85832) to a review panel pursuant to section 36 of the Impact Assessment Act. ANA explains in the letter and email that it is in the public interest to refer the impact assessment to a review panel in light of the significant adverse effects of the project upon matters of federal jurisdiction and on the Aboriginal, treaty and inherent rights of Grassy Narrows.	
C-09105	24/06/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Distribution of the ANA comments on the PTTW ERO for GBR to the MECP.	Engagement not related to Project
C-09035	24/06/20	Ontario Ministry of Natural Resources (MNR)	Email	ANA providing questions from bidders on the Forestry Research Plot to the MNRF regarding the location and establishment and requirements. MNRF offered to organize a meeting with bidders in order to answer questions. GBR responded that they would be willing to meet with the bidder and MNRF to answer these questions, and posed a time to meet.	
C-09090	24/06/20	Red Lake Municipality Shared Spirits	Email	Distribution of the Great Bear Local Procurement Policy to Shared Spirits	
C-08509	24/06/21	Lac Seul First Nations Red Lake Municipality Sapo'nuk Sustainability Shared Spirits Wabauskang First Nation	Email	Request from GBR to shift the EMC meeting on June 24th to Wednesday June 26th. Other attendees agree.	
C-08945	24/06/24	Impact Assessment Agency of Canada (IAAC)	Phone Call	Meeting with IAAC regarding the TISG/AEX Designation and ANA. Further discussion occurred regarding the designation process and continued reiteration that the support of ANA is critical, along with an update that the panel review request is currently under review.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-08961	24/06/24	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Request from ANA to designate the Great Bear Resources Mine Project to a Part II.3 Comprehensive Environmental Assessment under the Ontario Environmental Assessment Act. The formal request cites previous reports sent to IAAC regarding mercury and metal leaching, along with reiteration of cumulative impacts which need to be examined due to other land uses in the land surrounding ANA for the reasoning behind the request.	ANA_062424_02.pdf
C-09021	24/06/24	Ontario Ministry of Natural Resources (MNR)	Email	Response from MNRF to follow-up summary sent regarding a previous chat between GBR and the MNRF. The follow-up summarized key points discussed regarding the PTR, Work Permit, Chukuni River in Water Works Window for fish, Shoreline Alienation, Beaver Dam removal application, and boat cache. MNRF responded to key points and questions posed in the summary.	
C-09581	24/06/30	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	Letter sent from ANA to Mines with GBR copied on June 30, 2024. In the letter, ANA states that they will continue to rely on information from their experts, and reiterated previous letters and issues. ANA also stated that they felt there have been inadequate responses to these previous letters and issues stated from both Mines and GBR. ANA also responded to previous comments from GBR regarding the mercury methylation study and stated that GBR's response was inadequate. The review of the Closure Plan from ANA with the recommended response being "rejection" of the Project was also attached. Letter communication from ANA Lands Protection team articulates the formal objections of ANA to the proposed Closure Plan for the Advanced Exploration (AEX) phase of the Great Bear Gold Project. ANA contends that the Closure Plan is fundamentally flawed and poses a significant threat to their inherent, Aboriginal, Treaty, and Indigenous rights, as well as to the environmental integrity of their territory. A central grievance is the perceived inadequacy of Great Bear and the Ministry of Mines' responses to ANA apprehensions, particularly concerning the substantial risk of increased mercury methylation within the English and Wabigoon River System. ANA asserts that this increased methylation, driven by sulphate release from the project, will exacerbate existing mercury contamination, leading to further poisoning of the community and a direct infringement upon their Treaty rights. ANA further argues that the Ministry of Mines has demonstrated a lack of due diligence in its assessment of the Closure Plan, prioritizing expediency over substantive engagement with the First Nation and its expert evidence. ANA criticizes the	Engagement not related to Project
C-09410	24/07/02	Ear Falls Municipality	Email	Request from GBR regarding the possibility of giving staff a tour of Ear Falls. Ear Falls confirmed that they would be available and asked GBR for a date and time that would work for them.	
C-09152	24/07/03	Ontario Ministry of Natural Resources (MNR)	Email	Summary of discussion which took place on July 3, 2024 between GBR and MNRF which covered the closure plan submission timeline, Permit to Remove for on and off lease tree clearing, right of way culvert installation, shoreline alienation to be removed, pipeline within the ROW, installation of diffuser, beaver dam removal applications, and the boat cache application.	
C-09616	24/07/04	Ear Falls Municipality Smart Modular Canada	Email	Smart Modular Canada reaching out to Ear Falls and GBR regarding the need for housing. GBR informed Ear Falls that discussion on housing won't happen for some time.	
C-09613	24/07/08	Municipality of Dryden	Email	City of Dryden connecting with GBR on the efforts they are undertaking to bring air passenger service back to Dryden and to add GBR to their focus group on the subject. Focus group meeting will be on the July 9th.	
C-09583	24/07/09	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Environment and Climate Change Canada	Letter	GBR July 9, 2024, Letter response to IAAC regarding the June 17 letter sent from ANA to IAAC in regards to the request for the review panel. The letter establishes the Minister's decision criteria, how mining activity in Red Lake is common and the effects are well understood, the support of local Indigenous communities if their interests are met, and that the location, nature and scale of the Project will not create a potential for adverse impacts which would warrant the Review Panel.	GBR_070924_01.pdf
C-09391	24/07/12	Red Lake Municipality	Email	GBR inquiring regarding the possibility of a meeting between Red Lake and GBR's Senior Director of Social Performance in order to discuss the current priorities for the Municipality of Red Lake and discuss ways for GBR to support these. GBR also expressed their interest in working in order to develop the Infrastructure Gap Analysis. Red Lake stated that they will be preparing the summary with requested information, along with the RFP for the Gap Analysis.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-09395	24/07/13	Ear Falls Municipality	Email	Follow-up from GBR thanking the Ear Falls staff for giving the GBR team a tour to understand the layout of the community and some recent and future projects and initiatives. GBR asked Ear Falls if there was any further plans or priorities that Ear Falls would like to share, along with maps of the community. Ear Falls followed-up with maps along with residential property for sale, and plans for acquiring Crown Land, and where to reach out if any further information was needed.	
C-09576	24/07/15	Red Lake Municipality	Email	Red Lake Age-Friendly Community Program Coordinator inquiring if GBR would be able to do a presentation on the news and updates GBR may have which would affect the older members of the community. GBR stated they would be able to give a presentation on a given day, and Red Lake thanked GBR and gave them a layout of a typical meeting.	
C-09579	24/07/15	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	Coordination of a meeting with IAAC to discuss the review panel request from ANA along with the letter that was sent from GBR earlier this week in order to discuss what options GBR may be able to provide.	
C-09189	24/07/16	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting alignment on the Forestry Research Plot in order to facilitate a kick-off call. A meeting time was agreed upon, and the invitation was sent.	
C-09577	24/07/16	Ear Falls Municipality	Email	Request for Sponsorship for the Memory in Miles Golf Tournament cancer fundraiser. GBR provided the sponsorship request form.	
C-09989	24/07/16	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR response to MoM and MECP Ministers regarding ANA's request to designate the Great Bear Project for a Provincial Environmental Assessment under the Environmental Assessment Act. GBR outlines the ongoing consultation with ANA, and highlights the ongoing review from WFN and LSFN and MoM. The concerns regarding water quality are also taken into account, with further commitments to water quality previously made in the ISW application previously sent, along with the testing results showing a below detection level of mercury in cell test results. GBR also notes that the Project will be subject to a comprehensive federal review, and will follow leading industry practice.	
C-09190	24/07/17	Ontario Ministry of Natural Resources (MNR)	Email	GBR requesting MNRF to provide a letter for MTO which would ensure there are no objectives for GBR to use Tuzyks Road. MNRF responded with a letter which gives permission for GBR to use Crown Land to Access GBR Mining Leases.	
C-09303	24/07/17	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	Summary of previous conversation had between Great Bear Resources and IAAC regarding ANA. GBR noted that ANA had declined previous offers related to the water study, and provided further summary of contact related to capacity and study funding, along with an update that GBR is still awaiting a response from GBR regarding the latest budget offer from July 3rd. GBR also emphasized the lack of mercury used throughout the project, and the de-sulphuration which will occur throughout the lifecycle of the mine.	Confidential engagement
C-09564	24/07/17	Ear Falls Municipality	Email	Sponsorship request for Memory in Miles fundraiser event.	
C-09198	24/07/18	Ear Falls Municipality	Email	Follow-up regarding previous conversations of utilizing the new landfill proposed by Ear Falls Municipality for the GBR Project. GBR asked a few questions regarding the approved waste types of the landfill, and the capacity and lifespan of the landfill. Ear Falls followed up and stated they will be providing information pertaining to GBR's request soon.	
C-09195	24/07/19	Red Lake Municipality	Email	Follow-up regarding previous conversations of utilizing the new landfill proposed by Red Lake Municipality for the GBR Project. GBR asked a few questions regarding the approved waste types of the landfill, and the capacity and lifespan of the landfill and requested follow-up. Ear Falls responded that the volume and waste types except for contaminated soil should be accepted but it will require a Waste Disposal Site Agreement.	
C-09342	24/07/19	KBM Ontario Ministry of Natural Resources (MNR)	In Person	Meeting between GBR, the MNRF, and KBM regarding the growth and yield plot remeasurement and the establishment of a new forestry plot.	Engagement not related to Project
C-09554	24/07/19	Impact Assessment Agency of Canada (IAAC)	Email	IAAC sending GBR a letter regarding key amendments made the Impact Assessment Act (IAA) and the step required to transition the Great Bear Gold Project under the amended IAA. IAAC also invited a meeting in order to discuss the materials sent.	IAAC_071924_01.pdf
C-09269	24/07/23	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	In Person	Meeting held to discuss outstanding permits for AEX and to align on potential timelines ahead of internal meetings and Q2 disclosures.	Engagement not related to Project
C-09407	24/07/23	Ear Falls Municipality	Email	Distribution of the notice advising the Township of the scheduled upgrades at Highway 105 and Tuzyks Road. GBR noted that this is expected to commence on July 29th, and there is expected to be minor delays as a result. GBR noted that this has been shared with the public via mailouts and social media. Ear Falls thanked GBR for the update, and stated that this is great news.	
C-09412	24/07/23	Lac Seul First Nations Red Lake Municipality	Email	Distribution of the notice advising the LSFN of the scheduled upgrades at Highway 105 and Tuzyks Road. GBR noted that this is expected to commence on July 29th, and there is expected to be minor delays as a result.	
C-09413	24/07/23	Red Lake Municipality	Email	Distribution of the notice advising the Municipality of the scheduled upgrades at Highway 105 and Tuzyks Road. GBR noted that this is expected to commence on July 29th, and there is expected to be minor delays as a result. GBR noted that this has been shared with the public via mailouts and social media.	
C-09424	24/07/23	Red Lake Municipality Wabauskang First Nation	Email	Distribution of the notice advising the LSFN of the scheduled upgrades at Highway 105 and Tuzyks Road. GBR noted that this is expected to commence on July 29th, and there is expected to be minor delays as a result.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-09549	24/07/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the memo on Box Dewatering to support the scoped down PTTW. GBR requested if the information sent satisfied the request from the MECP and requested a further update on the review. GBR also gave an update regarding the consultation with ANA, and noted they responded to the concerns raised.	Engagement not related to Project
C-09550	24/07/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirming the receipt of the Box Dewatering Memo in support of the PTTW application, along with the additional information from GBR regarding ANA consultation.	Engagement not related to Project
C-09373	24/07/24	Indigenous Services Canada Lac Seul First Nations	Letter	Formal letter request from the GBR Site Manager respectfully requesting the guidance of LSFN regarding performing a Water Ceremony at the Project site. GBR Project notes that it values its strong partnership with your community and seeks your support in conducting a Water Ceremony before the next phase of AEX Construction. During a recent visit to Wabauskang, discussions with knowledge keepers highlighted the importance of this ceremony and we wish to collaborate with LSFN in conducting a ceremony on site. LSFN providing guidance in response to the distribution of the formal request for guidance on the upcoming Water Ceremony GBR is looking to have performed on the Project site. LSFN responded with the name of an individual who is willing to conduct the water ceremony and would like to know the proposed dates to determine availability.	Engagement not related to Project
C-09321	24/07/25	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing the MECP with the memo on Box Dewatering needed to support the PTTW. An update on the ongoing engagement with ANA was also provided specifically concerning the PTTW application. GBR's response to ANA regarding primary concerns were also addresses. MECP responded with further information needed regarding the PTTW permit, along with next steps. A follow-up meeting was being planned.	Engagement not related to Project
C-09341	24/07/25	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the GBR Consultation Report to the Ministry of Mines	
C-09990	24/07/25	Asubpeeschoseewagong Netum Anishinabek Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Indigenous Services Canada Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Letter	GBR response to ANA's comments on the Great Bear Closure plans from the June 30th, 2024, letter sent to Mines. GBR responded to the responses from Dr. Branfireun regarding the Mercury Methylation study, along with a further attachment of a memorandum which further details responses pertaining to water quality previously highlighted. Additionally, GBR responded to the comments from Dr. Morin surrounding closure, and PAG rock.	
C-09344	24/07/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR following up with MECP's request for the distribution of a table shared in the July 24, 2024, meeting which depicts activities and species at risk/habitats. MECP requested this to help to inform the response being prepared to GBR. The table requested was sent, along with a reiteration of the request for a letter of assurance for the fall work.	Engagement not related to Project
C-09360	24/07/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Response to MECP's issue regarding .zip files in the previously shared GBR AEX IGF and AAF applications. GBR confirmed that they have been reuploaded to the folder where this was previously distributed, along with a copy of the AEX activity.	Engagement not related to Project
C-09361	24/07/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirming receipt of the AEX activities relating to SARB table.	Engagement not related to Project
C-09411	24/07/29	Red Lake Municipality Shared Spirits	Email	Distribution of meeting minutes following the Quarterly Business Opportunities Meeting to GBR and Shared Spirits staff in attendance. Great Bear Resources Ltd. held a Quarterly Business Opportunities Meeting on April 23, 2025, to discuss updates to the Business Registry, procurement opportunities, and RFP processes. Key points included the development of a bid opportunity process, the importance of clear communication regarding RFP notifications, and the identification of key opportunities such as the EPC Substation Package and Road Maintenance. Feedback mechanisms for partner performance were emphasized, and the need for in-person meetings was recognized. Actions were assigned to update RFP packages, share expo information, and enhance communication regarding partner participation.	Confidential engagement
C-09418	24/07/29	Ear Falls Municipality	Email	Question regarding the status of the funding application for the Memory in Miles fundraiser.	
C-09417	24/07/30	Lac Seul First Nations Red Lake Municipality Wabauskang First Nation	Email	Confirming logistics for the Bald Mountain tour, including the itinerary, and requirements, along with boots pants and shirt sizes.	
C-09553	24/07/30	Ear Falls Municipality TbayTel	Email	Ear Falls connecting GBR with Thunder Bay Telephone Company about the development work they're doing in coordination with the municipality.	
C-12926	24/07/31	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing a response to the letter from ANA's counsel dated June 16, 2024, regarding Great Bear's Permit to Take Water application.	
C-09667	24/08/01	Ontario Ministry of Natural Resources (MNR)	Email	Question from the MNR regarding if GBR has reviewed the MOU for the Forest research plot.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-09991	24/08/01	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR's response to the ANA comments made on the Industrial Sewage Works Proposal for the AEX Project. GBR responded to the comments previously made and had reiterated that they have provided comprehensive and timely information in support of its AEX permit applications and committed to following leading industry practices and applicable regulatory requirements. GBR also highlights the irrelevance of the comments to the project regarding the recent changes to Ontario's metal mining effluent regulations, and the GBR discharge permit in Washington state, and stated that the MECP should disregard comments on this point.	Engagement not related to Project
C-09669	24/08/02	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call with the MNR regarding the MOU which will be sent back for signatures with surface rights, and the agendas at All Ministry Meetings being cut short and being unable to address the tree removal permit. GBR concluded that they will be providing more information and monitoring developments following the closure filing. GBR also indicated that they will be starting the AEX phase September 1st and that the MNRF will be working toward issuing the PTR. GBR requested the MNRF give full transparency to ensure that GBR will be aware of anything which might give reason to believe the start of AEX will not be done.	Engagement not related to Project
C-09998	24/08/02	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Energy & Mines (MOEM)	Email	GBR distributing the SharePoint link to the Final updated Advanced Exploration Closure Plan dated August 1, 2024 to ANA, along with a concordance table to identify minor additions.	Engagement not related to Project
C-09671	24/08/06	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the Record of Consultation for the Great Bear AEX Project to ANA. MoEM is also copied on the email.	Engagement not related to Project
C-09992	24/08/06	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Letter from ANA to the MECP requesting a pause to be taken for an unspecified period of time prior to any further decisions on the ECA ISW application in order to have the time for ANA to continue to have the time in order to respond to GBR's previous response to comments.	Engagement not related to Project
C-09557	24/08/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR providing a letter of support to the MECP regarding the Hydro One's Waasigan Transmission Line. MECP responded that the comments will be considered and recorded for the file.	MECP_080724_01.pdf
C-09562	24/08/07	Common Voice Northwest Energy Task Force Ontario Ministry of Environment, Conservation and Parks (MECP) Red Lake Municipality Thunder Bay Community Economic Development Commission	Email	Letter from the Co-Chair of the NW Energy Task Force regarding a letter of support for the Wassigan Transmission project from the Northwest Energy Task Force.	MECP_080724_02.pdf
C-12930	24/08/07	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	ANA has reviewed GBR's response to their comments on the proposed Permit to Take Water (PTTW) and disagrees with GBR's claim of adequately addressing their concerns. They argue that GBR's summary charts do not address substantive issues, and the revised proposal for a smaller water taking is seen as a "bait and switch." ANA requests a re-opening of the public comment period and emphasizes that the original PTTW application was incomplete. They have also asked for the project to be designated under the Environmental Assessment Act, making it inappropriate to issue the PTTW until this request is resolved. ANA urges the Ministry to refrain from approving any water takings proposed by GBR.	
C-12937	24/08/07	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirming receipt of email response from ANA in response to GBR's letter in regard to comments on the PTTW.	IAAC_080824_01.pdf IAAC_080824_02.pdf
C-09993	24/08/08	Great Bear Gold Project Projet Aurifère Great Bear	Letter	Letter from IAAC requesting input regarding the designation request for the GBR project. The letter requests available project information regarding potential non-negligible adverse changes to fish and fish habitat, aquatic species at risk, and migratory birds, non-negligible adverse changes to physical habitats, pollution impacts on boundary, international and or to interprovincial waters, adverse impacts resulting from changes to the environment on Indigenous peoples, including physical and cultural heritage, current use of lands and resources for traditional purposes, structures, sites or things of historical, archaeological, paleontological architectural significance, and adverse changes to health, social or economic conditions of Indigenous Peoples. Further project information was also requested, alongside a list of regulatory approvals and any federal financial assistance required, if any permits will have any negative effects on the aforementioned categories, efforts taken to consult with the public, efforts taken to consult with the Indigenous communities, any comments received in relation to environmental effects and how they have been addressed, and the proponents view on if the project should be designated under the amended IAA.	Engagement not related to Project
C-09767	24/08/12	Ontario Ministry of Natural Resources (MNR)	Email	Email to the MNR regarding the creation of the access trail to the approved dam removal locations. GBR wanted to keep MNR in the loop regarding the progress. GBR provided further details along with photos to showcase the distance, and where the accesses will be. GBR stated that they will be starting the dam removal in the current/upcoming week and will keep the MNR updated.	
C-12938	24/08/12	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	ANA thanks the Ministry's for the acknowledgement of receipt and advises that the ANA August 7th email to the Ministry constitutes ANA's preliminary response to GBR's July 31st correspondence, and that ANA will be submitting detailed expert and other submissions on the deficiencies within the PTTW application and on the new "scoped" water taking proposal.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-09764	24/08/13	Red Lake Municipality	Email	Update from Red Lake Municipality regarding the awarding of the Community Capacity Study and Business Gap Analysis to InterGroup, which will be formalized for August 26. A proposal was attached due to GBR's previous interest in contributing along with meeting times in order to discuss the proposal and contribution. Further correspondence took place between RLM and GBR's regarding a meeting to discuss contribution.	RLM_081324_01.pdf
C-09773	24/08/13	Red Lake Municipality	Email	GBR distributing the briefing note regarding the status of the Great Bear Project as it relates to upcoming government meetings, along with the Great Bear Fact sheet which can be further distributed. GBR told Red Lake Municipality that they appreciate their support in the project. Red Lake Municipality replied and stated that they will be sure to advocate on behalf of GBR.	Confidential engagement
C-10028	24/08/14	Ear Falls Municipality	Email	Ear Falls Municipality providing GBR with the closeout sponsorship form for the Party in the Park/Canada Day festivities, along with an inquiry regarding the possibility of GBR's participation in the upcoming Fall Festival. GBR stated that they would be attending and could volunteer. Ear Falls put GBR in charge of an activity, and invited GBR to bring Swag and other merchandise along with anything further for information purposes. GBR confirmed they would be able to supervise the activity, and will be there all day to participate.	
C-09955	24/08/15	Ontario Ministry of Natural Resources (MNR)	Email	Questions from the MNR regarding the PTR. GBR responded to the questions posed and sent the requested shapefiles. GBR also let MNR know that they are working with a licensed scaler to calculate the volume of wood for payment in the case of one of the millers not taking the wood.	
C-09958	24/08/15	Ontario Ministry of Natural Resources (MNR)	Email	GBR providing the MNR with the supporting shapefiles for the PTR. MNR let GBR know that there was some access issues, which GBR let the MNR know that they had been resolved.	
C-10005	24/08/18	Red Lake Municipality	Email	Red Lake Municipality's response to GBR questions regarding rezoning options for multi-unit/apartment complexes along with the typical timeframe for this rezoning request along with a question surrounding multi-unit senior housing in Red Lake and further information. Red Lake responded regarding the senior housing project and gave contacts to follow-up with for zoning and the housing development.	
C-10002	24/08/20	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR seeking clarification regarding the consultation period with ANA, as in previous communications from MINES on June 5th, 2024, MNES had stated that this period would conclude on June 30. GBR had come across an indication that the consultation period will be extended by at least two weeks post receipt of the final consultation letter with the possibility of further extension if new concerns from ANA arise. GBR reiterates that the new information appears to contradict what was previously communicated in June, and that further insights would be appreciated in understanding the rationale would be appreciated. The initial letter which outlined the June 5th deadline was attached alongside the email chain which granted the June 30th, 2024 extension.	Engagement not related to Project
C-10012	24/08/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP giving GBR notice that they have set-up an invitation series for bi-weekly meetings which will take place on every second Monday as previously discussed, as the upcoming inaugural meeting will take place on a holiday, a different date was proposed. GBR responded that they are interested in speaking regarding the ECA and concerns raised by ANA regarding sulphates. GBR requested further information regarding this issue as they would like to have meaningful conversations to come to a resolution as MECP did not communicate any guidance on the topic. MECP noted that they are looking into this and will get back to GBR.	Engagement not related to Project
C-09933	24/08/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP inquires if Great Bear Resources plans to use a mobile ECA during construction and if the attached ECA is the intended one. MECP outlines necessary conditions for deployment, including detailed site analysis, environmental study reports, and pre-deployment consultations with the Ministry's District Office. MECP requests further discussion on the matter. GBR followed up with phone call to MECP September 3, 2024.	Engagement not related to Project
C-11321	24/08/29	Environment and Climate Change Canada Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Wabauskang First Nation	Letter	Response letter to ECCC and IAAC penned by both LSFN and WFN's Chiefs. The letter states that they have come to the attention that IAAC is currently considering a request to appoint a panel to review the Great Bear Project. The Chiefs note that the Project is situated within the heart of both of their ancestral homeland territories, and both First Nations have effectively governed and managed these territories through law, with community members having a lived relationship with the land and waters since time immemorial, and have since fostered deep, reciprocal, kinship relationships with all the beings with whom they share the land and water with, reiterating that they are the voice of these lands. The letter states that these First Nations both have a sacred responsibility to care for this land, as well as the right to benefit from it. The Chiefs note that since the start of the Project several years ago, both Nations have built a mutually respectful relationship with GBR, and that GBR has agreed to support their undertaking to conduct an Anishinaabe-led Assessment of the Proposed Great Bear Project. The letter notes that the purpose of the ALIA is to determine the impacts of the Project on the communities' constitutionally protected rights and responsibilities and laws. The Chiefs note that they have designed the ALIA to complement an Agency-led review of the Project, and that this would not compliment a panel review. The letter further states that GBR has agreed to respect the final decision of the ALIA, and that given this agreement, the panel review is unnecessary for the Crown to discharge its duty to consult and accommodate and possibly may interfere with or pose obstacle to the ALIA, which would be harmful to both WFN and LSFN, as well as both Nation's relationship with GBR.	IAAC_082924_01.pdf

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-09931	24/09/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Discussed potential site visit in late September or early October. Questions asked about commissioning the mobile ECA as soon as the PTTW is obtained. Rumor about GBR pulling equipment and project being postponed until next year is not true. Waiting for permits to start ASAP. Project broken into two phases: Stage 1 outside SAR windows (Sept 1 to Jan 14) and Stage 2 being reviewed by SARB to decide if an OB is needed (Stage 2 Jan 14 and onward including operations of AEX).	Engagement not related to Project
C-10296	24/09/03	Canadian Environmental Law Association Environment and Climate Change Canada ANA Lac Seul First Nations Wabauskang First Nation	Email	GBR distributing an additional letter in response to their July 9, 2024 response to the ANA request for a panel review on the Great Bear Gold Project pursuant to section 36 of the Impact Assessment Act. GBR also attached a letter from LSFN and WFN regarding the same issue.	
C-11322	24/09/03	Asubpeeschoseewagong Netum Anishinabek Environment and Climate Change Canada Headwaters LLP Impact Assessment Agency of Canada (IAAC) Lac Seul First Nations Wabauskang First Nation Woodward and company	Letter	Letter from GBR to ECCC and IAAC regarding the ANA request for a review panel. GBR further reiterates that for reasons previously set out in the Great Bear letter dated 9 July 2024, GBR maintains that a Review Panel will not be required for this Project. GBR also notes that they understand that LSFN and WFN have filed or will file a submission which states why they believe that this review panel would be unnecessary. GBR also notes that LSFN and WFN have designed an Anishinaabe-led Assessment (ALIA) process which complements an Agency-led review of the Great Bear Project, rather than a panel review. GBR also states that they have agreed to assist LSFN and WFN on this ALIA, and will respect the outcome of that review.	IAAC_090324_01.pdf
C-10608	24/09/05	Lac Seul First Nations Red Lake Municipality Shared Spirits Wabauskang First Nation	Email	Update from Shared Spirits regarding the consulting groups to perform functions of the ALIA. Shared Spirits notes the following consultants will have the following roles: IEG (Integral Ecology Group): Cumulative Impacts Assessment/Modeling. Will also perform a project management function. Tamarack Consulting: Technical/Environment Impact Study/Statements Mac Hydro: Hydrological Modeling/Cumulative Impact to Water Pathfinder/Kaaren Danneman: Traditional Knowledge (land use studies) Shared Spirits notes that they will be mentioned as subcontractors, and further budget will be discussed as soon as possible, hoping to get an estimate to GBR in the coming week. Shared Spirits also notes that they will be coordinating an introductory meeting once everything is finalized.	Confidential engagement
C-10037	24/09/06	Red Lake Municipality	Email	GBR is sending an email to Red Lake Municipality, requesting their confirmation for a new entrance permit for Tuzyks Road. The permit is needed to enhance the intersection's line of sight and address safety concerns. GBR is asking for approval on behalf of the Red Lake Municipality for GBR to act as an agent for the entrance. The confirmation is required by the MTO to finalize the permit.	
C-10039	24/09/06	Red Lake Municipality	Email	The Municipality of Red Lake confirms its consent for GBR to act as its agent for the entrance to the newly aligned Tuzyks Road from Highway 105.	
C-10556	24/09/06	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear Indigenous Services Canada Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Letter	Distribution of letter from ANA regarding the Great Bear Project's application for Approval of Closure Plan. The letter restated previous items brought to MINES in discussions surrounding the Closure Plan which had been addressed by GBR, such as PAG and NPAG, and methylmercury. The letter further discusses ANA's concerns with the adaptive management plan, and the consultation process, specifically surrounding the provincial government. ANA brought up a lack of capacity support, and other applications associated with the GBR such as the ECA PTTW. ANA stated that approving this would be dangerous to ANA, and would cause more pollution, as well as attaching two reports dated September 5, 2024 which respond to the ECA ISW, and the AEX Closure Plan and ECA PTTW.	Engagement not related to Project
C-10619	24/09/06	Red Lake Municipality	Email	GBR inquiring with relevant road users regarding securing the entrance permit required for the connection of Tuzyks Road. GBR asked Red Lake Municipality if they would approve GBR acting as an agent for the entrance to the newly aligned Tuzyks Road which is required by the MTO to finalize the permit for the new road alignment into Highway 105.	
C-10620	24/09/06	Red Lake Municipality	Email	Confirmation received from Red Lake Municipality giving GBR consent to act as their agent for the new entrance to the newly aligned Tuzyks Road from Highway 105. Red Lake also told GBR to reach out if anything further was required.	
C-10144	24/09/08	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR following up with Mines regarding the recent letter from ANA regarding the closure plan. GBR stated that they have identified no further comments related to the closure and that the feedback given consists of disagreements with previous responses. GBR also noted that some comments do not pertain to closure and are to be addressed through other Ministries. GBR requested a meeting to discuss.	
C-10541	24/09/10	Lac Seul First Nations Red Lake Municipality	Email	Distribution of the Preliminary Economic Assessment press release for the Great Bear Project to LSFN and Shared Spirits. GBR also noted that an updated mineral resource estimate was released which provided an increase to the inferred resource estimate. GBR noted that if there were any questions to contact the team, or join the conference call on September 10, 2024 at 9:00 am EDT.	
C-10145	24/09/11	Ontario Ministry of Energy & Mines (MOEM)	Email	Follow-up from GBR to Mines regarding organizing a meeting to discuss recent letters received from ANA.	
C-10149	24/09/11	Ontario Ministry of Energy & Mines (MOEM)	Email	Note from Mines regarding GBR's request to meet that they will meet after their review of ANA's comments are completed.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-10150	24/09/13	Ontario Ministry of Energy & Mines (MOEM)	Email	Reassurance from Mines to GBR regarding the ANA comments received on both September 6 and September 10. Mines stated that they are working diligently to review the reports and provide feedback in a timely matter to identify the potential new concerns raised.	
C-10151	24/09/13	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR responding to items highlighted in the recent email from Mines regarding the comments from ANA regarding PAG rock, and the NPAG stockpile.	
C-10609	24/09/13	Lac Seul First Nations Red Lake Municipality Shared Spirits Wabauskang First Nation	Email	GBR looking to confirm a date and time for the September EMC meeting for Monday, September 16th at 1:00pm CDT.	
C-10610	24/09/16	Lac Seul First Nations Red Lake Municipality Shared Spirits Wabauskang First Nation	Email	Confirmation ahead of the September 16, 2024 EMC meeting of who will be attending the EMC meeting in person/online.	
C-10295	24/09/17	Ontario Ministry of Energy & Mines (MOEM)	Email	Follow-up with the MoM regarding the possibility to meet and discuss the closure plan and identify further alignment from MoM regarding the other permits being given to the project from other government agencies such as the MECP.	
C-10297	24/09/17	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Environment and Climate Change Canada Lac Seul First Nations Wabauskang First Nation Woodward and company	Email	Response from ANA's legal team regarding the July 9, 2024 and September 3, 2024 letters sent by GBR. ANA states that they have reviewed the correspondence from GBR and LSFN and WFN and state that they believe there is no compelling factual, legal, technical, or scientific reasons against referring the project to the Review Panel. ANA states that the Kinross letter added nothing new to previous claims, and that the joint letter from WFN and LSFN regarding their Indigenous Led assessment do not have enough details, and that the proposed regulations are not in existence and are not available for the federal government to enter into an assessment agreement at this time. ANA further stated that this would not satisfy the duty to consult ANA, and that they have different interests as ANA is the only community downstream from the project. ANA also states that GBR should not be against the review panel if they have the credibility in their report that they state. ANA requests that no weight should be given to the submitted letters, and the review panel request is still relevant,	
C-10298	24/09/17	Ontario Ministry of Energy & Mines (MOEM)	Email	Email from Mines stating that they are currently assessing the current batch of concerns regarding the Closure Plan from ANA, and will look at getting back to GBR for next week, and will meet with GBR once it has been reviewed. Mines also stated that they have shared with the MECP all correspondence to and from the ANA for the AEX Closure Plan, and will follow-up in order to ensure the MECP is aware of the concerns raised by ANA.	Engagement not related to Project
C-10301	24/09/17	Ontario Ministry of Energy & Mines (MOEM)	Email	Distribution of the materials regarding the addressed concern around overburden water quality from ANA. GBR attached the AEX Water Quality Memo and the MLARD Assessment that was previously provided to ANA. MECP indicated that this was an underlying issue regarding PTTW which needed to be addresses, and that extensive back and forth has occurred with ANA. GBR stated that the issue has already been addressed and asked if there is any help which can be provided in communicating this to the MECP.	Engagement not related to Project
C-10302	24/09/17	Ontario Ministry of Energy & Mines (MOEM)	Email	Invitation from MINES to a placeholder meeting in order to discuss MINES' technical review of ANA concerns.	
C-10699	24/09/17	Ear Falls Municipality	Email	GBR providing an updated briefing note on the Great Bear project to Township of Ear Falls Mayor and staff. The briefing is intended to help answer questions from the community members. GBR also notes they were in Ear Falls on Saturday for the Fall Festival, and were able to respond to many questions directly from community members. GBR provided an email for community members to reach out to in case they had any further questions, as well as extending a note to connect with GBR team members if there were any further questions the staff had. Ear Falls Mayor thanked GBR for their attendance and noted they appreciated the update.	
C-10701	24/09/17	Red Lake Municipality	Email	GBR providing an updated briefing note on the Great Bear project to Red Lake Mayor and staff. The briefing is intended to help answer questions from the community members. GBR provided an email for community members to reach out to in case they had any further questions, as well as extending a note to connect with GBR team members if there were any further questions the staff had. The Mayor thanked GBR for the update.	
C-10362	24/09/18	Great Bear Gold Project Projet Aurifère Great Bear	In Person	IAAC following up with previous discussions with GBR regarding the concerns raised by ANA about the potential for methylmercury production from this project. IAAC stated they are considering engaging independent external experts to enhance the analysis on this issue but understand the challenges given the limited number of experts which would know about this issue. IAAC proposes seeking experts who would assess potential for methylmercury to be caused by the project, including in downstream processes, potential for any methylmercury to be proposed to result in bioaccumulation, and potential for the bioaccumulation to affect human health due to species or water consumption. IAAC also stated that the experts will confirm they are willing to work constructively with those who hold differing views, identify current and past affiliations, including those with Indigenous Communities, and for GBR to let IAAC know if they should change any of the aforementioned criteria.	
C-10710	24/09/18	Great Bear Gold Project Projet Aurifère Great Bear	Email	Letter response to GBR from IAAC regarding their decision to the Request to Designate the Great Bear Advanced Exploration Project under Section 9 of the Impact Assessment Act. IAAC stated that they have decided that the project is adequately described, and that the information provided is sufficient, and that the project does not warrant this designation.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-10714	24/09/18	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC providing GBR with a letter response regarding the decision on if the Project will be subject to a Review Panel. IAAC notes that the Project will not be subject to a Panel Review, and to continue consultation with ANA regarding the concerns brought to GBR. IAAC also noted that they are considering a special technical review for methylmercury.	IAAC_091824_03.pdf
C-10611	24/09/19	Red Lake Municipality Shared Spirits	Email	Shared Spirits requesting the gaps regarding the IA and ALIA found by SLR in the EMC meeting earlier. GBR noted that they will send information over from the team in order to help with the scope and budget development for the work done by the ALIA team moving forward.	
C-11000	24/09/19	Chukuni Communities Development Corporation Ear Falls Municipality Evolution Mining Keewatin Patricia District School Board Ontario Provincial Police Red Lake Airport Red Lake District High School Red Lake Hospital Red Lake Municipality	Email	Invitation from Evolution Mining for the September Community Connections meeting.	
C-10307	24/09/20	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reiterating that concerns about water quality, specifically sulfate levels, raised by ANA are outside the scope of the PTTW application, which deals with water taking. Water quality issues are addressed under a discharge permit. MECP and the Ministry of Mines have reviewed these issues extensively and found no problems related to sulfate levels. Great Bear will comply with the mobile ECA for water discharge. The consultation record is comprehensive, and there is no need to expand the PTTW review to include out-of-scope issues.	
C-11001	24/09/20	Chukuni Communities Development Corporation Ear Falls Municipality Keewatin Patricia District School Board Ontario Provincial Police Red Lake Airport Red Lake District High School Red Lake Hospital Red Lake Indian Friendship Centre Red Lake Municipality	Email	RLDHS noting they will be hosting a career fair for high school students in February which will allow local employers to talk regarding sector specific careers and summer jobs. RLDHS noted who to contact and the target audience for the career fair.	
C-11010	24/09/20	Chukuni Communities Development Corporation Ear Falls Municipality Evolution Mining Keewatin Patricia District School Board Ontario Provincial Police Red Lake Airport Red Lake District High School Red Lake Hospital Red Lake Indian Friendship Centre Red Lake Municipality	Email	Distribution of the meeting minutes from the Community Connections Meeting, as well as further resources from the National Centre for Truth and Reconciliation discussed in the meeting, The Evolution Community Connections Committee met on September 19 at the Evolution Recreation Centre to discuss community concerns and collaboration opportunities. Key topics included a safety update, FY24 donations, and the budget for FY25 focused on economic development, environmental stewardship, infrastructure, arts, health, education, and resilience. Community representatives shared updates on staffing challenges in policing, healthcare, and education; upcoming projects like the all-weather road, housing initiatives, and cultural events; and ongoing issues such as mental health service gaps and food insecurity. Evolution Mining highlighted safety programs, Indigenous training initiatives, and Truth and Reconciliation efforts. Action items included sharing reconciliation resources, and the next meeting date remains TBD.	Engagement not related to Project
C-10772	24/09/23	Red Lake Municipality	Email	Inquiry with Red Lake regarding the Community Health Care Committee and inquiring if GBR could be involved in the committee in order to better understand the challenges and how it could be supported. Red Lake noted the committee is still functioning, and that the request to join will be brought to the committee chair and the mayor.	
C-10925	24/09/24	Lac Seul First Nations Red Lake Municipality Tamarack Environmental Wabauskang First Nation	Email	GBR sending out an initial virtual kick-off meeting to the ALIA team in order to introduce each other as well as plan a future workshop/meeting in order to provide data and give an update on the project. Further conversation took place regarding times that work for the team.	
C-11013	24/09/24	Chukuni Communities Development Corporation Red Lake Municipality	Email	GBR sharing documentation regarding the Community Capacity Study and the Business Gap Analysis with Red Lake and the Chukuni Community Development Corporation with the GBR Preliminary Economic Assessment. CCDC thanked GBR for the information.	
C-10703	24/09/25	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR Response to recommendations for MINES further to an earlier call. GBR notes that no further concerns have come from consultation surrounding the closure plan. GBR further details the concerns raised from ANA and notes their responses, and the date previously addressed regarding groundwater and surface water concerns. GBR also notes that they have previously had MINES determine that the Project meets the O.Reg 35/24 requirements.	Engagement not related to Project
C-11047	24/10/02	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	IAAC noting they would like to coordinate a meeting with GBR towards the end of October to discuss the Impact Statement Phase work plan for the Great Bear Project. IAAC notes that they requested the work plan be provided within three months of the Notice of Commencement, and would also like to discuss GBR's feedback regarding the external technical review, updates regarding the study plan, and when would be best to meet at regular intervals. GBR proposes a date and notes full availability for the day. IAAC proposed an alternative date and requested further designs along with the ETR.	
C-11038	24/10/03	Township of Machin	Email	GBR confirms that they will be available to provide an update at the Machin Economic Development Committee on October 17th.	
C-11039	24/10/03	Township of Machin	Email	Invitation to the Machin Economic Development Committee Meeting, Machin notes that they have received bounce backs previously to GBR. GBR thanks Machin for the invitation and notes they will speak with their IT department regarding the email failure. Machin thanked GBR for the acknowledgement receipt.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-11040	24/10/03	Municipality of Sioux Lookout	Email	GBR reaching out to the Municipality of Sioux Lookout regarding upcoming availability to discuss housing and developers in Northwestern Ontario.	
C-10800	24/10/04	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call between GBR and MNR regarding the confirmation of the hunting restriction and Beaver trapping. GBR asked if the agent can lease land trap under another trap line holder, which the MNR confirmed, and stated they can reach out first if there was interest before MNR agent is used. GBR noted they would send a map of location and authorization in the area of interest.	
C-10805	24/10/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Meeting between GBR and the MECP regarding the Vertex Mobile ECA. Further questions were answered regarding contaminants and water quality. MECP asked further questions regarding the quality of effluent water. Further questions regarding the potential ANA meeting to discuss the ECA application were asked, which GBR will get back to MECP regarding, along with further information needed for re-submission to the MECP.	Engagement not related to Project
C-18902	24/10/04	Ontario Ministry of Natural Resources (MNR)	In Person	GBR and MNRF participated in the bi-weekly alignment meeting. Discussion topics included MNRF providing clarity on hunting restrictions, decisions around beaver trapping, MNRF confirming if the Enbridge Submission for Land Tenure was submitted, the Tuzyks Road crossing, MNRF reaching out to LSFN, WFN and ANA about Shoreline Withdrawal and the PTR Work Permit.	
C-10949	24/10/07	Lac Seul First Nations Many Paths Northwest Archaeological Red Lake Municipality Shared Spirits Wabauskang First Nation	Email	Responses to the invitation for the GBR archaeological tour at the Great Bear Site. Members of LSFN and WFN confirmed their attendance, and WFN noted they will give GBR the final number of attendees prior to the tour.	
C-11746	24/10/07	Red Lake Municipality	In Person	GBR presentation to Age-Friendly Group in Red Lake. Focus of presentation was a general overview of the GBR Project. Great Bear staff review key Project related features, and media with a focus on federal components and next steps. Great Bear highlighted valued components, and the sustainability approach of the Company.	RLM_100724_01.pdf
C-11050	24/10/08	Ontario Ministry of Natural Resources (MNR)	Email	MNR inquiring with GBR regarding the beaver dam being removed. MNR asked which trapline it was on and the location/permit issued. MNR follows up stating they have gotten further information from a colleague and requested the reason for removal and location of the dam. GBR sent along further information, noting they did not go through with the planned removal as other permits did not come in time before expiration. GBR noted they will be resubmitting the permits and previous conversations indicated they could assist in reaching out to the trapline holder. GBR notes that the staff dealing with the permit is out of office, and MNR provided another employee to assist further.	
C-11078	24/10/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the AEX IGF and AAF files to the MECP. GBR followed up with the MECP regarding the status of their review. MECP notes that they are just finalizing the results of the SAR assessment and results will be shared soon. The MECP also requests a meeting in order to discuss and confirm next steps, and notes that the file has the ministry's focus at the moment.	Engagement not related to Project
C-12150	24/10/09	Red Lake Municipality	Email	Red Lake's Age Friendly Committee reaching out to GBR to thank GBR staff for the exceptional presentation given at the Age Friendly session last Monday. The RLAFC noted that the thorough overview provided clarity and depth that allowed for engaging discussions to be fostered among members, and highlighted GBR's commitment to transparency and community involvement. RLAFC extended an invitation for GBR to participate in the upcoming Community Clean up Event which is scheduled for October 18th. GBR noted that they will be available and can confirm that they will have staff attend. RLAFC provided the schedule in response.	
C-11079	24/10/15	Ontario Ministry of Natural Resources (MNR)	Email	MNR requesting to see GBR's Environmental Procedure for the storage and handling of Fuel and Reporting and Clean-up of Fuel Spills. GBR followed-up and distributed the draft Procedure for fuel use/storage.	
C-11080	24/10/15	Ontario Ministry of Natural Resources (MNR)	Email	MNR distributing the Schedule A Permit for Authorization to Interfere with/Destroy a Beaver Dam for GBR to sign. GBR signed and sent the permit back to MNR for MNR's signature to be added.	
C-11081	24/10/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP distributing a presentation which outlines the Endangered Species Act, 2007 ESA review for the Great Bear AEX as discussed. The MECP notes that once they receive the final shapefiles of the project components of the AEX footprint they will revise this.	Engagement not related to Project
C-12151	24/10/15	Red Lake Municipality	Email	Red Lake Age-Friendly Community requesting if GBR will be able to provide refreshments for the upcoming Community Clean-Up event. GBR noted that they can provide the requested refreshments. RLAFC thanked GBR for their support of the program, and noted they will send out a detailed schedule shortly.	
C-11422	24/10/16	Township of Machin	Email	Request from Machin regarding the Economic Forum meeting, Machin noted they will reschedule to October 24th, and that a Zoom link will be sent as well. GBR noted that they will be calling in. Machin thanked GBR for noting this, and stated they look forward to having GBR join the meeting.	
C-12152	24/10/16	Red Lake Municipality	Email	Red Lake Age Friendly Committee thanking all, including GBR for their contribution of time, effort and refreshments to the Community Clean-Up event ahead of the event. The schedule was also distributed.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-11087	24/10/22	Ontario Ministry of Energy & Mines (MOEM)	Email	Communication from MINES regarding additional question received from ANA in response to MINES letters sent to the community on October 18. 2024. MINES requested GBR provide and information which may be pertinent to the ANA questions listed surrounding when construction would start and if the closure plan approval will delay this, location of groundwater wells and emergency procedure, and a list of commitments regarding groundwater sampling, surface water sampling, and overburden rock testing. GBR provided answers noting they will be following legislation and regulatory requirements for the AEX project, and noted their installation of capture wells in the overburden stockpile in order to sample groundwater quality in GBR's email response.	Engagement not related to Project
C-11448	24/10/22	Red Lake Municipality	Email	GBR following up with a previous request to RLM regarding the inclusion of GBR in the Community Health Care Committee to better understand the challenges faced and how to best support the community. RLM noted that they met, and approved the addition of a representative from GBR to be a full-time member of the committee. RLM notes that these meetings are called on an as needed basis, but can be attended either in person or virtually. RLM asked for GBR to confirm who should be added in order to have their contact information for distribution.	
C-11083	24/10/23	Lac Seul First Nations Ontario Ministry of Natural Resources (MNR)	Email	GBR following-up with LSFN regarding the distribution of a response letter for the MNR. GBR asks LSFN if the letter was sent to the MNR regarding previous conversations.	
C-11084	24/10/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailing GBR to note that they have received the requested shapefiles for the assessment of impact. MECP asks to review the images and areas below in order to confirm that the areas below reflect the final project. Once confirmed, MECP notes that they will revisit the assessment and update impacts where appropriate in order to share with GBR. GBR confirmed that the photos of the site were accurate and also noted the number of trees remaining as there is still forestry work to be completed.	Engagement not related to Project
C-11085	24/10/24	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	GBR providing a link to ANA in order to access applications and plans for GBR's upcoming Early Exploration activities related to the Great Bear Project. GBR notes it welcomes any feedback relating to the information provided.	
C-11182	24/10/24	Township of Machin	In Person	GBR presenting at the Machin Economic Development Committee. GBR presented materials on the Great Bear Gold Project and introduced the company and Project to the committee. Focus included detailed review of key feature of Great Bear Project, and overview of the federal process going forward for the Project including reviewing valued components, and overall sustainability approach of the Company.	
C-11469	24/10/24	Township of Machin	Email	Municipality of Machin (MM) inviting GBR to the Economic Development Committee meeting. MM had attached the agenda highlighting GBR's presentation time. GBR notes that they are looking forward to attending the meeting and had distributed the presentation video ahead of the meeting. MM thanked GBR and noted that the committee is excited for the presentation.	
C-11472	24/10/26	Township of Machin	Email	GBR thanking the Municipality of Machin (MM) for reaching out, and distributing the donation and sponsorship application for review and consideration. GBR notes that if there are any questions, MM can reach out and GBR would be happy to help. GBR also noted that all vendors being directed should reach out through the Procurement contact, and that the Procurement team would be happy to assist with the bidding list.	
C-11420	24/10/28	Impact Assessment Agency of Canada (IAAC)	Email	IAAC distributing the agenda for the October 29th meeting with Great Bear Resources. The agenda outlined the presentation which IAAC is set to give, feedback on the draft IS phase workplan, update on the proposed ETR, as well as the coordination of regular meetings and an update from GBR on ALIA and the proposed IS Study plan.	
C-11810	24/10/28	Ontario Ministry of Energy & Mines (MOEM)	Email	Confirmation of successful submission of the Early Exploration Permit # PR-24-000216 to the Mining Lands Administration System.	
C-11811	24/10/28	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	Confirmation of successful submission of the Early Exploration Permit # PR-24-0002165 to the Mining Lands Administration System.	
C-12001	24/10/28	Red Lake Municipality	Email	GBR reaching out to the Red Lake Fire Rescue to schedule a meeting in order to discuss the Emergency Response scope and a Mutual Aid Agreement. A date was set in order to further discuss.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-11421	24/10/29	Impact Assessment Agency of Canada (IAAC)	Virtual	Meeting minutes detailing the meeting which took place between GBR and the Impact Assessment Agency of Canada regarding the Impact Statement Phase workplan and study plan. The meeting was a virtual call which started off with introductions from both teams, which IAAC then gave a presentation on Clean Growth Cabinet Directive and Permitting Coordination inquiring if a 5-year target is achievable to work through with the help of a detailed workplan. IAAC notes that this is for transparency and GBR would need to agree that a 5 year timeline is feasible. IAAC went into further detail regarding what the workplan noting it should detail schedules and appropriate permitting aspects, IAAC noted they were looking to fulfill needs under the TISG and IA, and the workplan should align on this. IAAC also commented that key issues can be mitigated regarding technical questions within the draft report, and that sharing of information between teams can be integrated. Further discussion surrounding coordination took place to include the workplan for federal, provincial and other Class EA Considerations within the overall schedule to align these moving forward. IAAC asked regarding the ALIA, GBR noted timeline and scope changes, and that dialogue will further be extended in order to note where this fits within the workplan. The External Technical Review Panel on methylmercury was also discussed regarding any leads on reviewers. IAAC noted they have not contacted anyone, but do have names. GBR noted that they want to ensure the ETR can review the study plan prior to the work program. IAAC noted the process is still being developed but that they are looking to establish this soon and reflect input received. GBR noted that they have put a funding agreement in place with ANA at the moment, but have	IAAC_102924_01.pdf
C-11088	24/10/31	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP following up with GBR regarding their previous discussions. MECP notes they have shared that GBR are supportive of Crown led consultation on the Endangered Species Act permit and have drafted notification letters to communities that have been scoped in. MECP also highlighted the tight timelines regarding the Minister's decision on an ESA permit for mid-January.	Engagement not related to Project
C-11109	24/11/04	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry of Citizenship and Multiculturalism (MCM) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	Email	Letter received from the Honourable Minister of Mines surrounding Aboriginal Consultation. The Minister notes that MINES has reviewed the consultation materials including Plan for Consultation, Interim Consultation Reports, Consultation Report, Record of Consultation and Letters of Support. The Minister states that they are satisfied that appropriate consultation with Indigenous communities has been carried out. The Minister also notes this was concluded due to the fact that the final consultation report indicates issues identified regarding impacts to Aboriginal and Treaty rights are proposed to be mitigated through the specific aspects of the Closure Plan submission. It was also determined that the Closure Plan for the Great Bear Project can now be submitted.	
C-11181	24/11/04	Township of Machin	Email	Machin Economic Development Officer thanking GBR for attending the Economic Development Committee meeting and providing information regarding sponsorship and donation. Machin asks if there is a limit to what GBR would be willing to donate for the modernization of the Health Clinic/EMS Base.	
C-11509	24/11/05	Thunder Bay Community Economic Development Committee	Email	Invitation from the Thunder Bay Community Economic Development Commission regarding the upcoming Reverse Expo to connect with Thunder Bay Service and Supply Businesses on December 4, 2024. Great Bear Resources noted that they will let the larger team know, and that this would make sense with upcoming Project activities.	
C-11183	24/11/06	Township of Machin	Email	GBR providing the funding information to Machin in response to their previous request for funding of the Health Clinic / EMS Base. GBR notes that due to the amount requested, the team will require additional time in order to ensure alignment with the social investment strategy.	Confidential engagement
C-11839	24/11/08	Ontario Ministry of Natural Resources (MNR)	Phone Call	Voicemail left for MNR informing MNR that the Closure Plan has been resubmitted and is expected to be signed by the Minister later today, November 8, 2024. GBR staff also let the MNR know that they anticipate the receipt of the Permit to Remove, and other work permits for November 11, 2024.	
C-11854	24/11/12	Ontario Ministry of Natural Resources (MNR)	Email	GBR noting to MNR regarding a condition in the Permit to Remove Trees which would prevent GBR from removing trees within the district order RL-0182 currently in place until the order is revoked as engagement continues regarding revoking the order. MNR noted that they will amend to PTR to remove the 66' Public Lands Act Withdrawal order from the area from the PTR, and no harvesting will be permitted in the 66 ft reservation while consultation continues with First Nations. MNR notes that the updated permits were signed and sent to GBR via secure link sent from a MNR staff member.	
C-11911	24/11/12	Asubpeeschoseewagong Netum AnishinabekLac Seul First Nations Ontario Ministry of Citizenship and Multiculturalism (MCM) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Transportation (MTO) Wabauskang First Nation	Email	ANA response to the distribution of the Letter from the Honourable Minister of Mines regarding the Closure Plan, with ANA requesting that a copy of the filed Closure Plan is sent to ANA.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12829	24/11/12	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Northern Economic Development and Growth (MNEDG)	Letter	Distribution of Letter from the Minister of Mines to Indigenous Communities and government agencies regarding the Great Bear Resources Project's Closure Plan and Aboriginal Consultation. The Minister notes that MINES has reviewed the consultation materials including Plan for Consultation, Interim Consultation Reports, Consultation Report, Record of Consultation and Letters of Support. The Minister states that they are satisfied that appropriate consultation with Indigenous communities has been carried out. The Minister also notes this was concluded due to the fact that the final consultation report indicates issues identified regarding impacts to Aboriginal and Treaty rights are proposed to be mitigated through the specific aspects of the Closure Plan submission. It was also determined that the Closure Plan for the Great Bear Project can now be submitted.	
C-11848	24/11/13	Ontario Ministry of Natural Resources (MNR)	Email	Email from GBR to MNR's Red Lake and Sioux Lookout District's mailbox to send a formal notice of Great Bear Resources' intent to mobilize equipment and start work under the area authorized by the RLSL-2023-PLA-001122-WP-001 and Permit to Remove Permit No. P10206. GBR noted that work will commence on November 19th, 2024, and that the notice was sent in order to ensure compliance with Section B of the Work Permit Conditions Report.	
C-11853	24/11/13	Ontario Ministry of Natural Resources (MNR)	Email	MNR distributing the area which is approved under the permit to remove. GBR thanked MNR for the prompt reply.	Engagement not related to Project
C-11894	24/11/13	Ontario Ministry of Natural Resources (MNR)	Email	Confirmation from MNR's Red Lake Sioux Lookout District Staff that the Intent to Mobilize the RLSL-2023-PLA-001122-WP-001 permit has been received, and that staff will get back to GBR shortly.	
C-11899	24/11/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Call between GBR and the MECP with an overall focus on the Scoped PTTW. The MECP provided a revised PTTW and NOIL, with key PTTW changes to restrict the discharge into surface water (i.e. Chukuni River). The MECP confirmed that once they sign off on the PTTW and NOIL, there will be a final internal review before the materials are sent to ANA. The MECP further noted that they will request a call with ANA in order to discuss the permit, and that they would provide at the least, a week for ANA to review. The MECP noted that given the timing for review, the earliest realistic timing for the receipt of the scoped PTTW would be December. GBR noted that they could participate in the call between the MECP and ANA, and asked what the plan was if ANA was unresponsive or delayed the call beyond reason. The MECP did not have a specific response for this. The MECP also noted that they will be progressing with the ISW ECA shortly, and that the only SAR update was that the MECP have contacted communities, and informed them that caribou would not be a part of the AEX SAR assessment, but this will be something for GBR to consider in regards to the main project.	Engagement not related to Project
C-11900	24/11/13	Ontario Ministry of Energy & Mines (MOEM)	Email	Letter received from the Ministry of Mines regarding Early Exploration permits received for both PR-24-000215 BTU East and PR-24-000216 BTU West. MINES acknowledged the receipt of both permits, and notes that the permits were circulated to Indigenous Communities. Ministry staff will be conducting consultation with the Indigenous Communities.	Engagement not related to Project
C-11915	24/11/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly meeting between MECP and GBR regarding conditioning and trigger contingency approach, as well as holding GBR responsible for mitigation. MECP and GBR indicated that they were comfortable with the conditioning approach. The MECP also noted that once the information presented is sent via email to the MECP, that they will then share this with ANA who will schedule a meeting with ANA after a week. The MECP indicated that they have taken a lot of effort in solutions and have a defensible case, and that they are planning to show what they heard or what they did, conditions, and adaptive management, and that GBR will also be invited to participate. MECP requested GBR to take a thorough review of the permit to ensure alignment on the wording, as well as commenting regarding the Adaptive Management will allow to be flexible in consultation with district manager. The NOIL permit was also noted as acceptable, with some suggestions. MECP also commented regarding the water take estimations from GBR, and noted that there was a potential over estimation, which GBR responded that the construction schedule ensures that they will be able to meet water treatment capacity, and that the taking was an overestimate that would not be taken all at once. Further meeting logistics were discussed regarding the ISW meeting and further scheduling. The MECP also provided an update regarding the OB, noting all 3 communities responded to the consultation notice, with questions raised on caribou exclusion, and ANA requesting a 90-day extension.	Engagement not related to Project
C-12159	24/11/13	Red Lake Municipality	Email	GBR reaching out to Red Lake in order to discuss the Health Care Reserve Fund in further detail. Red Lake noted some upcoming times for availability and asked GBR if there was any specific information needed. GBR followed up with further items to discuss regarding the fund and its utilization and noted that they are currently drafting a community investment proposal for the GBR Project. Red Lake followed up with further availability, and a meeting invite was sent.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-11912	24/11/14	Asubpeeschoseewagong Netum Anishinabek Lac Seul First Nations Ontario Ministry of Citizenship and Multiculturalism (MCM) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR) Ontario Ministry of Transportation (MTO) Wabauskang First Nation	Email	GBR providing ANA with the filed Closure Plan as previously requested.	
C-11881	24/11/19	Red Lake Municipality	Email	GBR is looking to schedule a meeting with Red Lake Municipality to discuss the Health Care Reserve Fund and a community investment proposal for the Great Bear Project. RLM confirms availability on Monday before 11:00 AM and outlines several details she wants to clarify during the meeting, including the fund's profit allocation, annual accumulation, return on investment, specific use for healthcare initiatives, management authority, and past initiatives funded.	
C-11928	24/11/19	Dryden Fibre Canada Ontario Ministry of Natural Resources (MNR)	Email	MNR thanking GBR for reaching out to ensure compliance with the PTR for Forest Resources. MNR notes that the plan GBR has in place for the haul and shipping destinations are approved, and for GBR to notify the MNR once they receive the agreement with the destination. The MNR requested further information in compliance with Sections of the PTR. GBR followed up with the further information requested in order to confirm compliance.	
C-11987	24/11/19	Ontario Ministry of Environment, Conservation and Parks (MECP) Wabauskang First Nation	Email	MECP distributing a letter to WFN in order to notify the community that there has been an application for an Overall Benefit permit under the Endangered Species Act in order to support the Great Bear Resources AEX Project. WFN requested shapefiles for the application, which GBR followed up with further information requested. GBR noted that the schedule for this permit is tight, but to please reach-out if there are any comments.	Engagement not related to Project
C-12148	24/11/19	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP sharing the correspondence between WFN, LSFN, and ANA regarding the GBR Overall Benefit Permit application pertaining to caribou. MECP also noted that ANA had requested for an extended consultation period, and the MECP has extended the consultation period by 15 days to December 19, 2024.	Engagement not related to Project
C-11993	24/11/20	Ontario Ministry of Citizenship and Multiculturalism (MCM) Ontario Ministry of Energy & Mines (MOEM)	Email	Note from MINES that the MCM has recommended that GBR submit the Ministry Screening Checklist for the Built Heritage Resources and Cultural Heritage Landscapes to the MCM as soon as possible. GBR followed-up with filled out checklists for both Built Heritage and Cultural Heritage Landscapes to the MCM and MINES.	
C-12176	24/11/20	Red Lake Municipality	Email	GBR inquiring with Red Lake regarding a proposed development area, noting that there is a Highway Commercial lot currently for sale, and asking if it can be purchased and utilized for residential purposes. RLM noted that this property is for sale by the acre and that a review would have to be done in order to determine further uses, but certain uses aside from residential are currently supported.	
C-12228	24/11/20	Red Lake Municipality	Email	Providing the Mayor of Red Lake with an update regarding the status of work at the Great Bear Project Site. GBR notes that they have filed the AEX Closure Plan with MINES, and that the Permit to Remove Trees and work permit for culvert installations have also been received by GBR and work has commenced. GBR also notes that there are still some permits GBR is awaiting, and that they are in regular communication with Ministries to get these permits approved. GBR also notes that the access road and turning lane on Highway 105 have also been completed, and that they are currently awaiting final approval from the MTO for these to be operational. GBR notes that they are continuing consultation, and to reach out to GBR staff if Red Lake has any questions. The Mayor thanked GBR for the update.	Engagement not related to Project
C-12233	24/11/20	Ear Falls Municipality	Email	Providing the Mayor of Ear Falls with an update regarding the status of work at the Great Bear Project Site. GBR notes that they have filed the AEX Closure Plan with MINES, and that the Permit to Remove Trees and work permit for culvert installations have also been received by GBR and work has commenced. GBR also notes that there are still some permits GBR is awaiting, and that they are in regular communication with Ministries to get these permits approved. GBR also notes that the access road and turning lane on Highway 105 have also been completed, and that they are currently awaiting final approval from the MTO for these to be operational. GBR notes that they are continuing consultation, and to reach out to GBR staff if Ear Falls has any questions. The Mayor thanked GBR for the update.	Engagement not related to Project
C-11751	24/11/25	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly call with MECP covered updates on key permits and preparations for the meeting with ANA on November 29th. Topics included the Mobile Treatment Unit, Scope of Permit to Take Water (PTTW), and Industrial Sewage Works, with separate meetings planned for some. MECP addressed concerns about sulphate in source water and accepted proposed mitigations from GBR and Vertex. MECP will provide an agenda for Kinross to prepare, and Kinross will lead technical discussions, sharing necessary information in advance.	
C-18940	24/11/25	Ontario Ministry of Citizenship and Multiculturalism (MCM) Ontario Ministry of Energy & Mines (MOEM)	Email	MCM emailed GBR to thank them for providing the checklist, and requested a detailed large-scale map showing the project location and boundaries. GBR replied providing the AEX Program site plan.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12147	24/11/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP reaching out to GBR to determine whether a discussion on the ESA permit which is anticipated for the afternoon. The MECP notes that there is currently nothing on their behalf which warrants a meeting and gives an update regarding the continuation of discussions regarding monitoring and overall benefit related actions from the ESA permit, and noted that they have also initiated drafting the permit based on the application GBR made and discussions between the MECP and GBR last week. GBR noted that they have no concerns regarding cancelling this week's meeting and do not have any further updates, but noted that the following week's meeting should be held in order to align and ensure that they remain on track with the timeline.	Engagement not related to Project
C-11749	24/11/29	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	MECP outlined the agenda for the ANA meeting, including a review of discussion items and confirming Great Bear's involvement. Great Bear raised concerns about potential exclusion, which MECP acknowledged, emphasizing flexibility in dialogue. MECP committed to sending the agenda by November 29 and provided feedback on Great Bear's slides regarding permit conditions. Great Bear agreed to draft internal Q&A and coordinate with MECP. MECP confirmed a Renewal Permit issuance and requested additional data for compliance.	Engagement not related to Project
C-11705	24/12/02	Red Lake Margaret Cochenour Memorial Hospital Foundation Red Lake Municipality	In Person	GBR met with Municipality of Red Lake CAO to discuss the Reserve fund for Health Care, which covers clinic and pharmacy costs, recruitment, and furniture. Annual budgets for health care initiatives are being set, and any committee member can propose initiatives. Meetings are held as needed. GBR also met with Hospital CEO and Foundation representative to discuss health care priorities, including a CT scanner costing, a sterilizer, and palliative care renovations . Communicated with the Family Health Team manager via email.	Confidential engagement
C-12858	24/12/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing materials to the MECP in preparation for the meeting between the MECP and ANA to discuss GBR's PTTW application which will be taking place December 4, 2024. GBR sent slides detailing the AEX site footprint detailing the sources of where water will be taken in the PTTW, as well as an overview of the mobile treatment plan, including TSS removal and optional Hydrocarbon and Ammonia removal. GBR also attached Q and A's in the event which MECP is asked questions surrounding previously made and addressed claims from ANA on the PTTW, touching on the amount of water taken, noting that no sulphate will be generated during the dewatering and that this will not cause methylmerucry to form in these water bodies, as well as further information on the hydrology data, and discharge locations. GBR also attached the Plan for Additional Internal Monitoring for the Temporary TSS Plan.	Engagement not related to Project
C-13088	24/12/05	Indigenous Services Canada Lac Seul First Nations Shared Spirits Tamarack Environmental Wabauskang First Nation	Letter	GBR distributing a reminder for the upcoming EMC meeting scheduled for December 16th.	
C-11733	24/12/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	An application for a general benefit permit under the Endangered Species Act (ESA) for GBR gold exploration activities has been submitted. It was discussed at an Environmental Management Committee meeting with LSFN and WFN on November 18, 2024. It is noted that consultation with ANA is not as collaborative as with LSFN and WFN, due to a lack of agreement on the Crown's delegation of the duty to consult.	Engagement not related to Project
C-11753	24/12/10	Ontario Ministry of Energy & Mines (MOEM)	Email	Letter sent to GBR informing that early exploration permits will be needed specifically for proposed activities to address issues pertaining to Aboriginal rights. GBR inquires about concerns raised regarding the impact of exploration activities on Aboriginal and Treaty Rights, specifically asking which communities expressed these concerns.	
C-11786	24/12/10	Ontario Ministry of Environment, Conservation and Parks (MECP) Wabauskang First Nation	Email	GBR notifying WFN that MECP has received an application for the Overall Benefit permit under the Endangered Species Act, 2007 From GBR and requests feedback with respect to potential for any adverse impacts to exercise of Aboriginal of treaty rights. A link is provided to access the requested consultation documents related to the application for a general benefit permit under the Endangered Species Act (ESA) for the GBR gold exploration project. It is noted that a presentation was made to the LSFN and WFN communities and files related to the ESA were submitted. Please stay informed about communication with these communities and assistance is offered in case of access issues or questions.	Engagement not related to Project
C-11787	24/12/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sending MECP the draft response table as discussed with MECP. Highlighted is one question that requires a response from MECP. GBR encourages others to respond to any other questions and hopes to send the finalized table as soon as possible.	Engagement not related to Project
C-12309	24/12/10	Impact Assessment Agency of Canada (IAAC)	Email	GBR distributing the Mercury and Methylmercury Study Plan to IAAC, noting they will be distributing the study plan to Indigenous communities for comment later that day. The report detailed current understanding of methylmercury concentrations, pathways for possible interaction with the Project, and current baselines in water, and fish. The report goes on to further discuss the proposed approach for assessment, and methods for mitigation.	
C-12902	24/12/11	Lac Seul First Nations Red Lake Municipality Shared Spirits Wabauskang First Nation	Email	GBR providing ALIA the agenda for December 13ths ALIA meeting, reflecting communications. The agenda has also been added to the Teams link.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-11782	24/12/13	Ontario Ministry of Natural Resources (MNR)	Email	GBR inquiring with MNRF on condition of off-lease work permit as contractor plans to source aggregate material for major water crossing culverts from Griffith mine near Ear Falls, as it is not explicitly authorized as a Category 9 aggregate. GBR also plans to use aggregate from permitted pit #98 for road construction and wants to confirm that this is acceptable. GBR requests information on any potential issues or additional requirements related to plans.	
C-11783	24/12/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP inquiring with GBR concerning the Permit to Take Water (PTTW) renewal application submitted for GBR September 27, 2023. The Ministry is looking to advance a decision on the renewal application. To provide a complete assessment and decision, we need additional documents and information. GBR updated the levelogger data in the shared folder and provided responses to an information request regarding the Permit to Take Water (PTTW) for Great Bear Resources Ltd. The exploration drilling program will continue with a reduction in 2024/2025. The project remains in the exploration phase, with data and reports shared for monitoring compliance with PTTW conditions. No incidences of flow rate exceedances or drawdowns were reported in 2024. Monthly drilling data for 2023 and 2024 was also provided.	Engagement not related to Project
C-12285	24/12/18	Ontario Ministry of Environment, Conservation and Parks (MECP)	In Person	MECP emphasized the need for comprehensive permits and confirmed with GBR that Stage One activities should be completed by January 14. Draft permits include specific provisions for species-at-risk, focusing on tangible actions. Plans address habitats for wolverines and bats, with a need for clarity on waste management. Proactive engagement with First Nations is crucial, and MECP will align permit conditions with community feedback. Key concerns include winter impacts on site preparation and logistics for artificial habitats. Next steps involve integrating feedback and issuing an updated draft permit by week's end, with follow-up meetings planned.	Engagement not related to Project
C-16356	24/12/18	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR provided the meeting minutes for discussion on AEX SAR with the MECP from October 2024 until December 2024. Discussion meetings regarding the MECP-ESA Overall Benefit Permit took place on various dates in December 2024, with key participants from MECP, WSP, and GBR. The meetings focused on permit updates, responses to comments from various communities, and the drafting of permit conditions. There were discussions about consultation periods, the need for additional materials, and the importance of monitoring wildlife impacts, particularly concerning wolverines and bats. The MECP is working to finalize the permit while addressing community concerns and ensuring compliance with environmental standards.	Engagement not related to Project
C-13057	24/12/24	Red Lake Hospital Red Lake Municipality	Letter	GBR informing Municipality of Red Lake that they will be receiving a contribution to the Municipal Health Care Reserve fund from GBR this holiday season. GBR noted that they wanted to recognize that ensuring continued access to quality Health Care is a priority for the community, and that they hope to further support this priority through the contribution.	Confidential engagement
C-12287	24/12/31	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP canceling meeting with GBR regarding permitting as there are no further updates other than requesting confirmation of table of responses being sent to Lac Seul and Wabauskang. GBR agrees, and requests update on permit timeline from MECP.	Engagement not related to Project
C-12310	24/12/31	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR sharing methylmercury study plan with IAAC and informing of distribution to Indigenous Nations for input. IAAC plans to share study plan with Indigenous communities as well, as requests due date GBR has given Indigenous communities for comments as to align IAAC comments as well.	
C-12282	25/01/03	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	ANA's legal counsel distributing the OLT Appeal Form 1A to GBR following their submission to the OLT regarding the Leave to Appeal PTTW 3438-D7RQRJT.	
C-12830	25/01/03	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Land Tribunal Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	CELA acting on behalf of ANA as counsel in relation to the ANA EBR Application for Leave to Appeal PTTW. CELA notes that pursuant to Sections 38 to 48 of the Environmental Bill of Rights, they have submitted a Cover Letter dated January 3, 2025, ANA's Application for Leave to Appeal PTTW 3438-D7RQJT, as well as the Applicant's Book of Documents to the Ontario Land Tribunal. GBR was copied on this communication.	Engagement not related to Project
C-12314	25/01/06	Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	GBR responding to the MECP surrounding ANA's comments to the MECP for GBR's ECA ISW application. GBR attached a previous responses dated October 25, 2024, and August 1, 2024, which confirm that GBR has responded to all comments from ANA regarding the ECA ISW comments previously made. GBR confirms that they are currently drafting responses to ANA regarding more recent comments made, and that they will be distributed to the MECP and ANA once available.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12595	25/01/06	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly call with MECP included ongoing updates on key permits. Discussion items raised by MECP: Permit to Take Water (PTTW), Industrial Sewage Works, SAR update, and legal challenge (Leave to Appeal with Ontario Tribunal Board for the PTTW). MECP acknowledged the status of the ISW application and an information request. Great Bear confirmed the initial response to questions have been issued and the remainder of the package will be submitted by the end of the week. Great Bear emphasized the importance of early engagement with ANA due to potential project extensions and encouraged frequent dialogue. MECP stated they will assess engagement at the appropriate time. Great Bear inquired on the SAR Application status, with MECP confirming the status of the application remains unchanged. Discussion closed on raising the Leave to Appeal application filed by ANA with the Ontario Land Tribunal. MECP noted that leave to appeal is likely to be granted, which would automatically trigger a stay of the scoped PTTW. Great Bear acknowledged the significance of this potential challenge to their commercial decision-making and emphasized the need to work collaboratively with MECP to address these aspects.	Engagement not related to Project
C-12804	25/01/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP responding to previous email from GBR which distributed a draft response to ANA regarding the ECA ISW, with GBR noting that there are still 2 more letters from ANA which they are still reviewing their response to. MECP sought clarification regarding the attached document and asked if the file with Draft in the title was the final document for review.	Engagement not related to Project
C-12805	25/01/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR responding to the MECP's inquiry surrounding the response drafted to ANA regarding their previous letters surrounding ECA ISW sent for MECP's review. GBR clarified that the document they had inquired about was their final draft, and once MECP input is received, it will be finalized. GBR also inquired regarding the mechanisms of consultation going forward, noting that MINES had sent a response previously when GBR's response had been ignored.	Engagement not related to Project
C-12812	25/01/08	Lac Seul First Nations Red Lake Municipality Shared Spirits Tamarack Environmental Wabauskang First Nation	Email	GBR following up with WFN and LSFN regarding the previously sent Mercury Study Plan. GBR noted that they would appreciate receiving feedback by January 30th, 2025. GBR thanks LSFN and WFN for their efforts and for keeping the review at the top of their priority list for this month, acknowledging other priorities in this moment. WFN notes that this is currently under review with Tamarack, and GBR thanked WFN for the prompt response.	
C-12818	25/01/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the summary of action items as well as GBR's response to the MECP information requests which were received during the conference call GBR and MECP had December 9, 2024. GBR noted that the package also included drawings of the effluent treatment plant as well as the water balance calculations which were requested again, as they had previously been provided to the MECP technical services unit. GBR also noted that there will be an optimization to the Mine Water Holding Ponds, and that this will not have an effect on the water balance in anyway. GBR notes that the optimized configuration will allow for a shallower pond reducing the construction risk as the reduced depth will potentially eliminate the need to excavate into the water table, and that it should reduce the amount of water needed to manage during construction of the pond. GBR notes that the memorandum attached further notes the technical aspects behind the optimization with figures, and noted they will provide the detailed stamped drawings in the coming weeks, along with the revised Permit to Take Water application being provided by the end of the week.	Engagement not related to Project
C-12818	25/01/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the summary of action items as well as GBR's response to the MECP information requests which were received during the conference call GBR and MECP had December 9, 2024. GBR noted that the package also included drawings of the effluent treatment plant as well as the water balance calculations which were requested again, as they had previously been provided to the MECP technical services unit. GBR also noted that there will be an optimization to the Mine Water Holding Ponds, and that this will not have an effect on the water balance in anyway. GBR notes that the optimized configuration will allow for a shallower pond reducing the construction risk as the reduced depth will potentially eliminate the need to excavate into the water table, and that it should reduce the amount of water needed to manage during construction of the pond. GBR notes that the memorandum attached further notes the technical aspects behind the optimization with figures, and noted they will provide the detailed stamped drawings in the coming weeks, along with the revised Permit to Take Water application being provided by the end of the week.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12823	25/01/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the final responses to ANA regarding the ECA ISW comments to MECP for final review. GBR responded to letters sent by ANA on September 6, 2024, as well as October 9, 2024. GBR responded to comments surrounding the screening assessment of parameters of potential concern for proposed permit limits, as well as the inclusion of dissolved parameters of concern in which GBR notes that they have previously provided a response regarding parameters of potential concern, as well as the ongoing development of effluent criteria. GBR notes that they are ensuring risks of underground dewatering and the characterization of metal leaching and acid rock draining are addressed. GBR additionally notes that many of the concerns, such as mercury/methylmercury, had been previously responded to in other responses (September 16, 2024, response to the September 6, 2024, letter, October 28, 2024, memorandum), and reiterated that they are utilizing best practice testing methods which are consisted with the Prediction Manual for Drainage Chemistry from Sulphatic Geological Materials (MEND, 2009).	Engagement not related to Project
C-12824	25/01/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailing MECP regarding the ECA Critical Path for the ECA ISW. GBR thanks the MECP for the hard work that went into the Scoped Permit to Take Water, and noting that previous permit timelines were in place with the MECP which made critical milestones path attainable, and allowed for the progress to be tracked effectively and stay aligned in accordance with their dedication to meet the January 14, 2024, deadline. GBR notes that on track with this success, they would like to suggest a similar approach for the ECA, noting that it is crucial for the ECA ISW approval for April 2, 2025, noting that if this timeline is not met, construction must be ceased at site. GBR notes that most of the work seems to have been completed from the initial process in May 2024, and the official submission to Approvals on April, 12, 2024 they are optimistic about meeting this timeline, noting they have developed a draft critical path timeline for review, with freedom for the MECP to adjust the milestones in order to ensure the April 2025 approval.	Engagement not related to Project
C-12825	25/01/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP responding to GBR regarding the provided information in response to MECP's Information Request. MECP thanks GBR for their email and attachments noting that based on the preliminary review, all the requested items except for the updated Design Brief with information noted in the table summary as discussed on December 9.	Engagement not related to Project
C-12826	25/01/10	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	MINES noting to GBR that WFN has requested the shapefiles for Early Exploration permit applications PR-24-000245 and PR-24-000262. GBR notes that they have communicated this with WFN through the EMC, and noted that the WFN staff member who requested the shapefiles will receive them. GBR then followed up with the WFN staff member and distributed the requested permits submitted to MINES.	
C-12827	25/01/10	Ontario Ministry of Natural Resources (MNR)	Phone Call	GBR leaving a voicemail with the MNRF indicating that a chat with staff should be arranged at the soonest possible time. GBR notes that there was an issue with the PTR that needs to be discussed, as well as further questions from GBR which are still outstanding.	
C-12855	25/01/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to provide information to the MECP regarding an incident in December where a buncher operator mistakenly cleared outside of the permitted boundary indicated within the Permit to Remove issued by the MNR. GBR noted that due to the Christmas break, there was a delay identifying this issue until after operations resumed. GBR notes that they have since been actively working with the MNR on a solution, noting that while the ESA permit was not in effect at the time of this incident, GBR wanted to keep the MECP informed and included in future discussion with the MNR if MECP is interested. GBR notes the cleared area is parallel to the ROW on the south side, and does not contain any Areas of Concern, and solutions are being explored regarding realigning the pipeline to incorporate the mistakenly cleared section. GBR notes if this is not an option, they will ensure that the area is rehabilitated under the guidance of the Qualified Professional to align with species at risk requirements. GBR distributed an image showing the PTR boundary with a red circle highlighting the area where the boundary was not adhered to, as well as a PDF outlining the extent of the cleared area outside the boundary. GBR notes that they are conducting a root cause analysis to identify contributing factors and will implement corrective actions to prevent similar incidents in the future, noting that it is important to incorporate lessons learned from this incident including reporting times, oversight of contractor's work, and stronger communication in order to ensure compliance moving forward. GBR also seeks to discuss an extension for tree clearing under the MNR and confirm the MECP's position regarding chipping during the wolverine denning window, and seeking confirmation	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12828	25/01/13	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Great Bear Gold Project Projet Aurifère Great Bear Indigenous Services Canada Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Letter	The letter from ANA to Minister of the Environment, Conservation, and Parks raises significant concerns regarding the approval of a scoped Permit to Take Water (PTTW) for the Great Bear Advanced Exploration Project. ANA emphasizes the need to address substantial environmental risks and procedural deficiencies in the permitting and consultation processes. The community highlights concerns about potential impacts on water systems, particularly Dixie Creek and the English River, which are integral to their ecosystem and way of life. ANA notes its experts assert that the water extraction proposed under the permit could harm fish and aquatic life, particularly during drought conditions. ANA states that the removal of soil and overburden is also flagged as a source of contamination, with runoff and groundwater flow potentially introducing pollutants such as methylmercury, sulfate, and dissolved metals into the watershed. ANA restates that the baseline studies and proposed mitigation measures are insufficiently robust, with gaps in critical data and deficiencies in the design and capacity of the proposed water treatment systems. The letter also raises procedural concerns, asserting that the consultation process has been inadequate and fails to meet the Crown's obligations to engage meaningfully with the First Nations. ANA indicates that key decisions and agreements were made without their knowledge or consent, and that Ontario's consultation framework disregards their governance and legal processes. Limited resources for reviewing technical documents, along with delays and incomplete information, have compounded their concerns about the transparency and fairness of the process. ANA closes the communication addressing the cumulative	
C-12840	25/01/13	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	ANA sharing materials pursuant to sections 38 to 48 of the Environmental Bill of Rights, in support of the application for leave to appeal of the PTTW. ANA attached a cover letter from CELA dated January 3, 2025, ANA's application for Leave to Appeal PTTW 3438-D7RQJT, and the applicant's Book of Documents. ANA also attached the OLT Appeal Form 1A regarding the ANA application for leave to appeal PTTW 3438-D7RQRJT.	
C-12869	25/01/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Sharing the GBP AEX ANA Responses Documents. First document outlines GBR responses to ECA ISW review comments and the follow up comments from Source Environmental Associates. The second document is a response letter from CELA outlining their response to the ECA ISW.	Engagement not related to Project
C-12871	25/01/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sharing the ECA Critical Path to April Permit Approval. Outlines the steps, target date and status and considerations of the ISW ECA critical path.	Engagement not related to Project
C-12872	25/01/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing a summary of action items in response to the MECP's request for information received during the GBR and MECP call held on December 9th, 2024. The package included sealed drawings of the effluent treatment plan and water balance calculations requested by the MECP, noting that these were previously provided to the MECP technical services unit. GBR also notes that there will be further optimizations to the Mine Water Holding ponds noting this will not be affecting the water balance but will result in a shallower pond and reduce construction risks as well as reduce the amount of water needed to manage construction of the pond. GBR notes that the attached memorandum further details the optimizations with figures, with stamped drawings to accompany the memorandum coming within the next few weeks.	Engagement not related to Project
C-12876	25/01/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP reaching out to the GBR team in order to discuss the Notice of Intended Location document received on October 21, 2024, noting that further detail is needed from GBR in order to satisfy the terms and conditions of the mobile ECA or provide the MECP with enough information to confidently present to the ANA community. MECP noted that they hoped the information provided in a recent phone conversation with GBR was sufficient for further information. GBR responded to the MECP noting further information including sulphate levels recorded in nearby wells to site, and further information surrounding the geological makeup of the site, as well as noting further mitigation measures can be implemented if needed. GBR also distributed further information regarding the drainage area and the monitoring plan.	Engagement not related to Project
C-12877	25/01/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	Confirmation from GBR indicating the Early Exploration Plan/Permit has been submitted.	
C-12891	25/01/15	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR sharing the two new mining leases and stated they expect to receive the other two leases (yellow) before the end of the month.	
C-12901	25/01/15	Red Lake Municipality	Email	GBR reaching out to Red Lake requesting new contact info for the person taking over role. Want to make sure we can advance some of the ongoing discussions we have had and ensure we keep the momentum.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12916	25/01/15	Lac Seul First Nations Ontario Ministry of Environment, Conservation and Parks (MECP) Shared Spirits Tamarack Environmental Wabauskang First Nation Woodward and company	Letter	LSFN/WFN formal response to GBR and the Ontario Ministry of Environment, Conservation and Parks (MECP) regarding their comments on the Overall Benefit Permit (OBP) application for Advanced Exploration at the Great Bear Project. While recognizing MECP's issuance of the OBP on January 7, 2025, prior to the Nations' review of the responses, LSFN and WFN emphasized the necessity of fully incorporating their input into all future permits and approvals. The Nations reiterated their commitment to the stewardship of their Traditional Territories, underscoring the importance of addressing concerns about the project's impact on lands, waters, and species at risk from their perspective. They supported the permit issuance but stressed the need for meaningful timelines in future consultations to ensure their concerns are addressed comprehensively before approval. It is noted as part of the appendix that concerns presented have been addressed or partially addressed.	Engagement not related to Project
C-12917	25/01/15	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR resending WFN an updated GIS package with the correct shapefiles.	
C-12919	25/01/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sharing the Design Brief with MECP. The Design Brief has been updated to address the information requests received from the MECP during the conference call on December 9, 2024. As discussed, a red-lined (tracked changes) version of the document has been provided to clearly highlight the revisions for MECP's review. This submission follows the distribution of the water balance memo and the sealed ETP drawings.	Engagement not related to Project
C-12954	25/01/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR notifying MECP of the ESA Permit NR-C-001-24. Also indicated that Stage 1 activities related to Advanced Exploration commenced on September 1st and were completed on January 14th. GBR has now transitioned into Stage 2 works for the Advanced Exploration program. This notification is submitted to fulfill compliance requirements under the permit.	Engagement not related to Project
C-12969	25/01/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR inquiring with the MECP and seeking clarification regarding water use for building drill pads on the ice/wetland area, noting they are looking to withdraw less than 50,000L / day from a deep-water body source within the same water system in order to facilitate the construction of ice pads and ensure safe conditions for the drill rig operators. GBR also notes they will be looking to minimize potential impacts, with the water being drawn to the same system in order to reinforce and thicken the ice on the surface. GBR also notes they will be monitoring the water level using a staff gauge throughout the process in order to ensure the withdrawals do not cause negative environmental impacts. GBR is seeking to confirm if this approach aligns with applicable regulatory requirements and that no additional permitting is required for this activity, or if there are any specific conditions or reporting obligations associated with this use in order to ensure full compliance.	Engagement not related to Project
C-12960	25/01/20	Ontario Ministry of Energy & Mines (MOEM)	Letter	GBR distributing the draft responses to MINES of the Appendix A of the January 18th, 2025, letter from ANA, with highlighted areas to indicate where MINES responses are required. GBR notes that the concerns which were brought up by ANA were addressed within MINES' June 6th, 2023, response letter to ANA detailing responses regarding permitted activities under Early Exploration, and concern for ANA's declared land. MINES responded and provided information regarding maps and other information regarding the undertakings of the Project and the permits needed, as well as the permits and monitoring needed, noting the MECP will be issuing permits and confirming compliance. GBR also attached the January 18, 2025, letter from ANA regarding their Early Exploration permit applications for additional claims which GBR was in partnership with BTU Metals Corp. to submit. ANA noted previous concerns cited in the June 6th, 2023, letter regarding treaty right's and wellbeing as well as concerns previously mentioned surrounding mercury and methylmercury formation. GBR also provided the draft responses to the concerns in the January 18th, 2025 letter and asked MINES to assist regarding mapping and additional questions posed directly to MINES.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12950	25/01/21	Ontario Ministry of Natural Resources (MNR)	Email	GBR distributing the PTR area location in relation to the PTR boundary as well as the surveyed clearing area outside of the PTR boundary to the MNR in follow-up from previous discussions surrounding the PTR concerns. GBR further summarized the incident regarding the clearing which took place shortly before the Christmas break, noting that the contractors became aware of the issue in early January when work was resumed, and observed tree clearing outside the specified boundary. GBR further discussed the two options regarding corrective actions to take, noting they are investigating the root cause of this incident and are currently developing a comprehensive action plan in order to ensure it doesn't occur again. GBR assured the MNR that they are taking this very seriously and that they are also attempting to contact the SAR branch in order to keep them informed, which has been copied below. MNR followed up by sending a response letter, thanking GBR for their transparency, actions taken so far, and self-reporting of this incident which were taken into consideration of the non-compliance report. The letter detailed that this was provided in response of the incident, as reported by GBR's Environmental Manager and noted that the MNR has determined that GBR has already complied with many of the factors affecting remedy determination. The letter further notes that the actions from GBR demonstrated a willingness to disclose the incident as soon as they became aware, assumes accountability, and noted further safeguards which can be taken to prevent further incidents. The MNR acknowledged the actions taken by GBR for self reporting and their transparency to reach out to MNR regarding the non-compliance.	Engagement not related to Project
C-12896	25/01/22	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Ad-hoc call with MECP focusing on ongoing consultation considerations with ANA. The meeting was convened to address ongoing consultation requirements and advance the permitting process for the Great Bear Project, with specific focus on the Environmental Compliance Approval (ECA) for Industrial Sewage. MECP confirmed that operations and dialogue should proceed despite the ongoing tribunal process and emphasized the necessity of keeping ANA informed regarding the ECA. GBR expressed concerns about the critical timeline for ECA review, particularly regarding sulphate considerations, and sought confirmation of issuance by mid-February 2025, which MECP acknowledged as challenging. GBR raised the issue of limited engagement by ANA, noting that consultation delays impact commercial operations and requesting MECP's support in facilitating more effective dialogue. MECP agreed to share updated design briefs and a draft ECA with ANA and committed to issuing key communications the week of January 27, 2025, while emphasizing the importance of establishing a robust consultation record. GBR underscored the inefficiencies of previous proponent-led efforts and requested that MECP take a more active role in communications to improve consultation outcomes. MECP confirmed its intention to address GBR's concerns, including reviewing GBR's previously issued materials and ensuring alignment with regulatory expectations. Additionally, GBR presented its methylmercury study plan, which MECP agreed to review, forwarding it to the Science Division for further evaluation. GBR confirmed its intention to proceed with operations unless an OLT stay decision is granted and stressed the importance of treating individual permits	Engagement not related to Project
C-12978	25/01/22	Lac Seul First Nations Ontario Ministry of Environment, Conservation and Parks (MECP) Red Lake Municipality Shared Spirits Tamarack Environmental Wabauskang First Nation Woodward and company	Email	LSFN and WFN noted that GBR is preparing Environmental Management Plans for the Overall Benefit Permit at Great Bear, with a tight approval timeline. They request confirmation from MECP and GBR that comments from their Nations on these plans will be accepted after the January 31 deadline and that the plans will be amended accordingly. GBR replied by provided a copy of the ESA Permit for regulatory context. As part of GBR's regulatory commitments, GBR will be submitting Monitoring Plans as required under Section 71(a) and (b) of the ESA Permit to the MECP by January 31st with a focus on flexibility and adaptive management. The collaboration with Wabauskang First Nation and Lac Seul First Nation is emphasized, along with the role of the Environmental Management Committee in facilitating ongoing communication and feedback.	
C-12957	25/01/23	ANA Ontario Ministry of Energy & Mines (MOEM)	Letter	ANA response to GBR letters dated November 13, December 20, and December 30, 2024, on early exploration permits. ANA has expressed concerns to MINES and the proponent regarding proposed mining activities in their Interim Core Area of Interest, particularly the Great Bear Gold Project. They have communicated potential impacts on their waters, lands, and wildlife, as well as their Aboriginal and Treaty rights, since March 2024. Despite this, they were not consulted about exploration permits until now. The project area is upstream of their community and affects local wildlife, including walleye, moose, and caribou. The proposed mechanized land clearing poses health risks to the environment and the community.	
C-12962	25/01/23	Asubpeeschoseewagong Netum Anishinabek Lac Seul First Nations Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Letter	Mines distributing the PR-24-000262 Early Exploration Permit.	
C-12968	25/01/23	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR asking Mines if there was a status update on Mines response to ANA's preliminary comments on the early exploration permit applications	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12970	25/01/23	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	The Ministry of Mines is addressing concerns about community capacity and consultation processes related to an early exploration permit application. While capacity support is not deemed necessary for permitting to date, Ontario is open to funding a Mineral Development Advisor for the community. The permit allows specific exploration activities, with strict regulations to protect the environment, including a 30-meter buffer from water bodies. Concerns about impacts on local wildlife, such as walleye and moose, are acknowledged, but the Ministry believes risks are minimal. The proponent must adhere to environmental regulations, including proper handling of hazardous materials and waste. The Ministry is willing to engage further with the community regarding any additional concerns or impacts on Aboriginal and treaty rights. The Ministry has made the decision to issue an early exploration permits in response to the Applications, with the additional term and condition.	Engagement not related to Project
C-12819	25/01/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to the MECP regarding the recent election being called, and inquiring if there will be any impact on the ongoing review of permits, meetings, and MECP Consultation with ANA, specifically in regards to the ECA ISW.	Engagement not related to Project
C-12993	25/01/27	Transport Canada	Email	(WSP) GBR reading out to Transport Canada in order to initiate discussions with respect to a navigability assessment and potential future Transport Canada approval requirements for the Great Bear (Gold) Project. The Great Bear Project is a proposed open pit and underground gold mine located near Red Lake, Ontario. Preparation of a federal Impact Statement has been initiated intended to meet the requirements of the Tailored Impact Statement Guidelines issued earlier this year by the Impact Assessment Agency of Canada. Transport Canada writing back asking for further information about which water will be impacted by the project and how they will be impacted. They also require more information about the usage of the impacted bodies of water. Many follow up questions from Transport Canada Officer.	
C-12996	25/01/27	Ear Falls Municipality	Email	GBR Responding to Ear Fall's corporate sponsorship request for the KDMA Conference asking for an update on what events remain available for sponsorship for their consideration.	
C-13086	25/01/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR confirming with the MECP that the ECA ISW Final Application Package was shared with ANA on May 27, 2024. GBR provided screenshots to the SharePoint files which ANA confirmed they had access to, which included the GBR ECA ISW Application, and all attachments and engineered drawings. GBR also notes that the clean updated Design Brief in PDF format will be sent to MECP staff shortly.	Engagement not related to Project
C-12997	25/01/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Email communication noting deferral in planned MECP virtual meeting between Great Bear and MECP staff.	Engagement not related to Project
C-12873	25/01/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	MECP acknowledged the request for a call and provided clarification on its position related to the recently called Election. MECP received election-related direction on January 28th, MECP confirmed that regular business will continue uninterrupted during this time. Deputy Office clearance required for permit decisions, proponent meetings, and engagements with Indigenous communities, including ANA, which may proceed post-election. Great Bear's technical review will continue, and MECP will provide further guidance on comments to ANA. Regarding the Permit to Take Water (PTTW), existing exploration operations may proceed until an updated version is issued. The scoped PTTW submission has been made to the Ontario Land Tribunal (OLT), with ANA's response expected by February 3rd, followed by OLT review. OLT's decision on Leave to Appeal could take up to four months, and a Stay, if granted, this may call for a suspension of related permit issuances. MECP is engaging its legal team to clarify procedural uncertainties. Great Bear acknowledged MECP's guidance and the Crown's position during the election period.	Engagement not related to Project
C-12933	25/01/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Great Bear issues Methylmercury Study Plan to MECP technical leads for review. Great Bear notes that we are expecting comments from the Indigenous communities and IAAC on the Study Plan.	
C-12961	25/01/29	Ontario Ministry of Natural Resources (MNR)	Email	MNR reaching out to GBR noting they are currently seeking feedback through the OPS Leadership Insights and are looking for feedback. MNR noted that they will receive feedback anonymously and would appreciate honesty, noting GBR will receive an email soon if they would like to participate. GBR noted they would participate and asked for further information regarding the form.	
C-12964	25/01/29	Ontario Ministry of Natural Resources (MNR)	Email	GBR notifying the MNR that the previously issues Bridge MOU is coming up for expiration on February 23, 2025. GBR asks the MNR for assistance in the renewal process. MNR thanked GBR for flagging this, and notes that the MNR will assist in renewing the MOU, and will begin drafting the new MOU for the Dixie Creek Bridge shortly.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12975	25/01/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR following up with the MECP regarding the NOIL (Notice of Intended Location for the TSS/Construction Plant) has been approved, as GBR notes that they have not received documented approval yet but was hoping to receive it if the MECP has the approval. GBR also notes that they are in the process of submitting the PTTW for Early Exploration, and asks where the information should be inputted. MECP sent the MISSING ATTACHMENT, and noted who GBR can speak to regarding the PTTW. GBR thanked the MECP for guidance and noted that they have reviewed the documents and kindly request acknowledgement of receipt of the information provided on November 15th, as requested, and approval for the NOIL, noting that if there is any additional detail needed to facilitate the process to let GBR know. MECP followed up to ask about the status of construction and other preparatory activities on site and if the Vertex MTU had been mobilized/deployed, and if so if there was any influent/effluent monitoring conducted in accordance with the November 12th response. GBR responded and noted that the MTU is being mobilized to site this week and next, and that there will be no moving of water as of yet as most of the work required has been above the water table, but once there will be a need to move water then the plant will be commissioned in order to ensure GBR is treating the construction water in compliance with the ECA, ensuring that internal influent/effluent monitoring will occur in accordance with the November 12th request. GBR also noted that they are available to meet if any further discussion is needed.	Engagement not related to Project
C-14508	25/01/31	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Letter	ANA's legal team distributing ANA's preliminary comments on the proposed Mercury and Methylmercury study plan, as well as preliminary reports from Dr Branfireun and Dr. Morin. ANA reiterates that they will be requiring more time in order to complete a fulsome and meaningful review of the document with further expert review and request a 90-day extension to provide comments. Three response letters were attached, with the first being a response letter from ANA noting that concerns have been raised regarding the quality and quantity of baseline data and monitoring completed. ANA addresses several concerns noting their request for extension to provide comments, noting they have provided preliminary comments. ANA states the reliance from GBR on achieving water quality which complies with PWQO and Canadian Council of Ministers of the Environment (CCME) water quality guidelines is inappropriate when it comes to mercury and methylmercury. ANA further states that they believe the background data is insufficient in order to detect if the Project will have a measurable impact on fish mercury levels. ANA also notes they believe the metal leaching and acid rock drainage prediction methods are improper, and that the assimilative capacity of the receiving waters as a mitigation strategy for excess sulphate loading is not supported by data available. Lastly, in the response letter ANA states that the proposed model GBR plans to use cannot technically deliver on outcomes related to sulphate changes, mercury and methylmercury concentrations in downstream activities, and mercury concentration in fish. The January 27, 2025, letter from Dr. Branfireun contained a study regarding sulfate-reducing bacteria in constructed wetlands, the Ambient Water Quality Guidelines for Mercury in British	ANA_013125_01.pdf ANA_013125_02.pdf ANA_013125_03.pdf
C-14533	25/02/03	Red Lake Hospital Red Lake Municipality	Letter	Red Lake Municipality's Mayor writing to GBR to thank GBR on behalf of Red Lake's Councilors, the Community Health Care Committee, and residents of Red Lake for their support for Red Lake's local health care initiatives. RLM further noted that GBR's contribution clearly demonstrates understanding from leadership regarding challenges which the community currently faces, and seeks to develop partnerships in order to provide social benefits and enhance the quality of life in communities which GBR operates. RLM further notes that they have been impressed in the past by meetings held with representatives, and notes that they feel that GBR is sincere in seeking the municipality to work as partners in developing the Project. RLM notes that they look forward to growing their partnership with GBR, and that they will do whatever RLM can in further assisting GBR with their Project.	
C-12897	25/02/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the stamped drawings of the AEX Pond Design for the ECA ISW. The MECP confirmed they have received the two attachments for the ECA ISW application.	Engagement not related to Project
C-12884	25/02/05	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	GBR distributing a letter response to additional technical comments made by ANA on Great Bear's ECA ISW application. GBR notes this letter will respond to written feedback received from Dr. Brian Branfireun on behalf of ANA regarding water quality, hydrological, and geochemical aspects. GBR noted the maximum discharge rate to the Chukuni River. The comments received discuss the adequacy of the baseline water quality dataset, and bring up concerns about mercury in the water, as well as methylmercury and noting perceived inadequacies within the program, as well as questions surrounding sulphate. GBR responded and reiterated that the water quality results do not operate randomly or lack utility as implied in the October 7, 2024, letter noting the water samples were using industry approved methods at accredited laboratories, noting that the sulphate effluent is not at risk for exceeding the limits as ore milling will take place off site, which is the main cause for high sulphate effluent in mining operations. GBR also responded regarding the concern of further mercury and the formation of methylmercury downstream, noting that mixing of sulphate at a higher quantity than the Chukuni currently has is not anticipated to be from the Project. The MECP was also copied on the response.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12895	25/02/05	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirming that they have received the GBR response letters drafted to the ANA regarding the ECA ISW, and are confirming the MECP are not in a position to provide comments at this time, and suggest that they speak to their legal counsel if there are any specific concerns or questions, and to ensure that the final responses are documented within the Record of Consultation, with the Ministry considering the responses as part of the consultation record. GBR notes that they will be sending the response letters to ANA and asked if the MECP is still on track regarding the ECA ISW related to sulphate for early February as previously discussed. GBR also notes that they will share the final responses once shared for MECP records. MECP notes that there are no updates at the moment regarding ECA conditions.	Engagement not related to Project
C-12864	25/02/06	Ontario Ministry of Natural Resources (MNR) Red Lake Forestry Management	Email	Hydro One reaching out to the Kenora District MNR to start the process of getting permission for Hydro One to cut a new approximately 600m long transmission line which would feed the GBR project through the new transmission station and are looking to progress with permitting. MNR told Hydro One to reach out to the Red Lake Forest Management Company in order to clear trees in the area. GBR was included in the email chain in order to provide the geospatial file of the area required for the transformer. GBR noted they're currently discussing this and will hopefully get back to Hydro One and the RLFMC with a file to support the request when the engineering teams meet.	
C-12870	25/02/06	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to the MECP to distribute four draft plans for submission in order to meet Condition 71 of the ESA permit which requires a noise and vibration monitoring program with input from the MECP, which will also collect data year-round at incremental distances outwards up to 10 km, develop a monitoring plans to meet conditions, and submit plans developed under said conditions to the SAR Branch. GBR followed up to check on drafts submitted and to confirm the files could be accessed, and to seek clarification regarding wording for the ESA Permit, and regarding current and future Early Exploration programs regarding trails and access roads. MECP confirmed submissions and noted there is availability to chat later on February the 6th. GBR confirmed that date would work, as well as the timing of the meeting.	Engagement not related to Project
C-12890	25/02/06	Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	MINES distributing the Early Exploration Application from GBR to WFN for review. MINES requested that WFN follow-up regarding any comments surrounding potential adverse effects to the community's Aboriginal or Treaty Rights regarding the permit application. WFN sent MINES and GBR a report, which GBR responded to. GBR thanked WFN for expressing concerns regarding the rehabilitation of areas subject to Early Exploration activities, disturbance assessments, prioritization of natural regeneration, erosion and sediment control, and protection of Wildlife and Habitat, with specific SAR mitigation measures. GBR also notes that communication with WFN includes regular updates regarding environmental management and practices with the EMC meetings. GBR also reiterated rehabilitation measures and environmental management methods outlined applies to all current and applied for Early Exploration permits on the Great Bear property, and that these practices.	
C-14552	25/02/06	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	GBR distributing additional technical comments on the Great Bear Resources ECA ISW Application. The response letter provides detailed responses to the October 10, 2024, letter received from Dr. Branfireun, where GBR reiterates that the water quality results are conducted using industry-approved methods at accredited laboratories, and sulphate and mercury monitoring have been undertaken, with GBR having sufficient data for their baseline water quality. GBR also restates that they have provided approximate conservative models to show concentrations of sulphate in the Chukuni River, with modelling being adequate. GBR also states that their models show that the concentration of sulphate will not deviate far from existing conditions, and notes that they acknowledge the issue of methylation downstream but continues to note that this is not anticipated.	
C-12875	25/02/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sharing ANA PTTW Presentation Slides from ANA Meeting	Engagement not related to Project
C-13423	25/02/07	Transport Canada	Email	February 7, 2025, meeting between GBR/WSP and Transport Canada surrounding navigability and potentially navigable waters. The presentation from WSP detailed regional setting and watersheds within the area. The preliminary site plan was provided as well as the Chukuni River, detailing the larger watercourse in the Project area, as well as ongoing consultation and engagement efforts with Indigenous communities.	TC_020725_02.pdf
C-14514	25/02/08	Asubpeeschoseewagong Netum AnishinabekGreat Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	GBR responding to ANA's preliminary comments and request for a 90-day review extension on the Great Bear Mercury and Methylmercury Study Plan. GBR notes that the review period is open until February 28, 2025, noting that GBR believes the additional time is substantial and that the comments received from ANA appear substantial and comprehensive, noting that other communities consulted on the plan have completed their review and submitted final comments within the requested deadline. GBR reiterates that they understand the importance of this issue for ANA, and will accept the impacts on project scheduling in order to accommodate this request, and that they are willing to provide reasonable capacity support funding in order to support this review.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-12935	25/02/10	Common Voice Northwest Energy Task Force Grand Council Treaty 3 Hydro One	Email	Great Bear copied on communication from Hydro One as it relates to transmission projects for the region. Noted in communication that advancement in options for transmission project from Dryden to the Red Lake area continues to advance. Communication to the Northwest Energy Task Force detailing ongoing work to date by Hydro One and its interaction with private proponents, municipalities, and Indigenous communities. Key message from Hydro One is that work is ongoing, and that priority in advancing power needs for the Red Lake/Ear Falls areas is advancing in collaboration with appropriate Crown representatives, proponents, and Indigenous parties.	
C-13094	25/02/10	Transport Canada	Email	Great Bear staff and technical team and Transport Canada (TC) met to discuss the preliminary Navigability Waters report issued to Transport Canada and the assessment components. TC requested further information on waterbody and watercourse levels based on the Strahler method, to be provided by WSP. WSP/Great Bear Resources (GBR) will share a copy of their presentation, and GBR will provide a summary of consultation activities and results regarding Indigenous use and navigability to support TC's assessments. Additionally, GBR will summarize public consultation results on navigability for TC's justification. TC confirmed receipt of the Great Bear Project's Navigable Waters Report in December 2024 and outlined their two-pronged approach to assessing waterbodies: (1) accessibility, based on depth and width criteria, and (2) current or potential future usage. TC emphasized the importance of consultation data, including a list of consulted parties. They also noted that fisheries offsetting may require a navigability assessment and are awaiting finalization of the offsetting plan, with WSP having shared an initial concept. TC's interest in fish compensation measures is contingent on the navigability criteria being met. It was further noted by TC to provide materials to the general public on navigable waters considerations at the next sessions in Red Lake and Ear Falls.	
C-12934	25/02/11	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP communication to ANA and CELA noting that the Ministry has received updated materials for Great Bear Resources Ltd.'s Environmental Compliance Approval application (Ref. No. 9390-D49KGX). MECP informs ANA that GBR previously shared the application in May 2024. MECP issued the Mine Water Holding Pond memorandum and updated Design Brief for reference. The Ministry reiterates they remain committed to ongoing consultation with ANA and will consider all comments received. Ongoing invitation for questions or feedback provided to ANA and CELA. GBR was not copied, but MECP forwarded GBR the email.	
C-13097	25/02/11	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR informing MECP that their last ice checks determined that they no longer need to flood the ice for this program. They were planning for just the one water taking under 50 000L/day however given they now have enough ice this is not required.	Engagement not related to Project
C-13418	25/02/11	Transport Canada	Email	GBR following-up with Transport Canada regarding their previous conversation regarding the Strahler Stream Order System which took place during their February 7, 2025 meeting. GBR provided further information regarding the Strahler Stream Order, noting the classification is used in order to classify and categorize the hierarchy of natural rivers and streams based on branching pattern which provides a standardized framework for studying and comparing the structure of river networks. GBR notes that the Strahler stream order can be used to predict navigability, and suitability for navigability.	
C-13098	25/02/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to MECP asking if there is any update on when they will be receiving the potential conditions for the ECA.	Engagement not related to Project
C-13099	25/02/13	Ontario Ministry of Natural Resources (MNR)	Email	GBR shared the application for the planned diffuser work in the Chukuni River. This report has been prepared by WSP Canada Inc. (WSP) on behalf of Great Bear Resources. MNR confirmed they received and GBR asked if having this completed before April will be a realistic timeline to leave for approval. MNR wrote "Unfortunately, predicting the timelines for LRIA approvals can be challenging. Our engineers, along with Fisheries and Oceans Canada (DFO), need to conduct thorough reviews of the project details. These comprehensive reviews may take a considerable amount of time." They asked if they could discuss further in a teams meeting? GBR responded by agreeing to a teams meeting and would appreciate it as they believe their application already included DFO. They also added they would like to use this meeting to discuss a condition in our current work permit for Culvert #7 (Schedule D, Clause (c)): "To ensure the protection of warmwater fisheries in the Chukuni River, the permittee shall only carry out the installation of Water Crossing 7 (WC7−Appendix D) from July 16 to September 14 inclusive, for the duration of this Work Permit." Since this location has no water present, and we conservatively included it in the permit review, I'm hoping that with a discussion and the attached memo from our qualified professional, we might be able to install this culvert in the winter to reduce environmental impacts. Please see the attached memo from our consultant at WSP for reference. Noted this week wont work for a call but next week is free. MNR wrote back ensuring their Management Biologist will be present in the meeting and they have tentatively booked a meeting for Feb 26 @ 9 am. They also asked if GBR still requires a 'Letter of Authority' from the MNR. GBR writing back "As for the Letter of Authority, this is no longer required.	Engagement not related to Project
C-13419	25/02/14	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR Reaching out asking MECP if there is any update on when they will be receiving the potential conditions for the ECA.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14621	25/02/14	Dryden Fibre Canada Green Acres Contracting Lafarge Red Lake Forestry Management Red Lake Municipality	Email	GBR distributing the 7-day-blast notice for the AEX Pre-Blasting which will occur from February 21, 2025, to June 30, 2025, on the Project footprint to Red Lake and other road users in the area. GBR further notes in the notice that they will be providing a 24-hour-advance notice to all known road users as well as real time announcements leading up to the blast and further blast guards positioned prior to every blast to restrict access and ensure safety.	Engagement not related to Project
C-13104	25/02/18	ANA Ontario Ministry of Energy & Mines (MOEM)	Email	GBR provided GIS Data to ANA on the SharePoint site. GBR reached out to MINES inquiring if they usually share this information in the application package to the communities during their consultation?	
C-13105	25/02/18	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sharing the Groundwater Monitoring Plan to fulfill condition 4.4 of Great Bear Resources' PTTW Number 3438-D7RQJT.	Engagement not related to Project
C-13106	25/02/18	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Letter	ANA sharing their preliminary comments in response to Great Bear's early exploration permit application. It was noted that significant information remains outstanding, and the GIS data requested from the proponent was only received this morning. On February 4, 2025, MINES informed GBR that the proponent indicated that it would provide them with the information that they requested on January 27, 2025, including GIS data for this application which the proponent had previously omitted from its data package. However, despite their attempts to access this information from the proponent, they only received the GIS data this morning. GBR require additional time to review, map, and assess this new data and its impacts on ANA's rights, and to provide more fulsome comments following this review. GBR trust that ANA will provide them with additional time to complete this review and to provide additional comments on this application. MINES is aware of ANA's significant concerns with proposed mining activities, including exploration activities.	Engagement not related to Project
C-14527	25/02/18	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	GBR distributing the requested shapefile data for Early Exploration PR-24-000245 to ANA, with MOEM copied.	
C-13392	25/02/19	Thunder Bay Community Economic Development Commission	Email	GBR reaching out to the Thunder Bay Community Economic Development Commission (CEDC) to ask if the CEDC team will be attending PDAC and extending an invitation to meet during PDAC if so. CEDC responded that the Monday would work, as the Mayor of Thunder Bay would be present. GBR confirmed that the Monday of PDAC would work, and asked if the timing proposed would work. CEDC confirmed that the timing proposed by GBR works, and sent out an invitation.	
C-13123	25/02/21	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	CELA sending GBR comments and 12 attachments for the ANA Comments on GBR new PTTW application - ERO Number 025-0078. ANA attached a letter from ANA on concerns of the Great Bear scoped Permit to Take Water, a letter from Dr Morin with MDAG comments on submission of the respondent Great Bear Resources, a letter outlining ANA comments on PTTW, letter from Dr Morin on responses to ANA concerns for AEX, a letter from Dr Branfireun on response to PTTW leave of Appeal, a letter from Dr Branfireun on response to GBR ECA, a letter from Dr. Branfireun on GB ECA ISW, a reply letter from Dr. Branfireun on the WSP memo, a technical report from Dr. Branfireun on the Riverbank Mercury Methylation, a letter from Dr Morin on the review of the ECA Application documents for AEX, a letter on ANA's concerns on the closure plan and ECA, and a letter from Dr Freed on the source review of the GB scoped PTTW leave to appeal.	Engagement not related to Project
C-14649	25/02/25	Ear Falls Municipality	Email	GBR reaching out to Ear Falls to ask if they will be attending this year's PDAC.	
C-13122	25/02/26	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR reaching out to IAAC asking if they can provide their comments on the Methylmercury Study Plan soon to stay within the 30 day timeframe. They also asked IAAC to proposed date options for reoccurring bi-weekly meetings. IAAC wrote back confirming they are still working on it and expect that they will return their comments within the next week. They also proposed either Wednesday February 26, between 2pm and 4pm, Thursday between 3:30pm and 4:30 pm, or Friday Between 9:30am and 12pm.	
C-13153	25/02/27	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	ANA's legal team reaching out on behalf of ANA in response to the data GBR has shared with ANA on the SharePoint filesharing site. ANA's legal team notes that the files provided do not include the proposed road and trail locations to the drill collars and asks for this to be provided as well.	
C-14515	25/02/27	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	ANA's response to GBR's extension for the Great Bear Mercury and Methylmercury Study Plan. ANA noted that the extension to February 28, 2025, is inadequate and requests more time, noting submission can be expected for March 28, 2025. ANA reiterates their decades long experience with mercury contamination and noted that their experts are well positioned to provide important and helpful comments on the proposed study plan, but that ANA is still experiencing a mercury crisis and the cumulative impacts which creates barriers to meaningful engagement. ANA further reiterates that that their needs are different than those of other communities and that ANA needs more time to review and assess this proposal and provide comments.	
C-14529	25/02/27	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM)	Email	ANA responding to GBR regarding the shapefiles distributed for Early Exploration PR-24-000245. ANA notes that the shapefiles do not include a proposed road and trail location to the drill collars as indicated within the application and request a shapefile which reflects their anticipated location.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14678	25/02/27	Ear Falls Municipality	Email	GBR reaching out to Ear Falls and noting that they should expect an email from SLR to set-up an interview in order to assist GBR in collecting further information surrounding the services and infrastructure in the Red Lake and Ear Falls region in order to better understand current capacity, resources, and thresholds in order to determine if the Great Bear Project will have impacts on services and infrastructures and determine if mitigation measures are required as a result of the Project.	
C-13168	25/02/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Phone call between MECP and GBR on the camper operation for construction event of an ECA delay, the water quality results and ECA Expectations and the Advanced Exploration (AEX) Update. Many good talking points.	Engagement not related to Project
C-13170	25/03/03	Great Bear Gold Project Projet Aurifère Great Bear	Letter	GBR receiving a letter from IAAC providing GBR with comments on the Impact Statement Work Plan for the Great Bear Gold Project which provided feedback regarding key issue topics meetings and addressing feedback, incorporating tasks associated with the External Technical Review (ETR) into the Project timeline, and the coordination of federal and provincial permits and authorizations, and how the information will be gathered during the process. IAAC also offered to meet to discuss the permits and the Federal Permitting Coordination Initiative, which can offer federal permitting coordination support for Projects.	IAAC_030325_01.pdf
C-13255	25/03/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	The MECP reaching out regarding surface water quality and sediment data collected under GBR's surface water/aquatic resources monitoring programs, including monitoring data from April 2024 to present, in an Excel sheet if possible. The MECP also requested that the Chukuni River data be provided first in order to facilitate a prioritized review in line with the ECA application in order to support AEX activities. The MECP is looking to examine the ECA conditions related to sulphate. GBR followed up through distributing the AEX Design Brief, previously submitted to the MECP Technical Services Branch as well as discussing previously outlined technical discussions, as well as noting the bi-weekly meetings. GBR also notes that they would appreciate knowing why this information was requested, noting that the ECA ISW approval is needed for April 2025.	Engagement not related to Project
C-13330	25/03/04	Metis Nation of Ontario Ontario Ministry of Energy & Mines (MOEM)	In Person	Great Bear Resources and NWOMC leadership held an introductory in-person discussion to speak to current stage. Great Bear and NWOMC leadership spoke to working closely with the Region 1 RCC, local LRC staff, and Métis citizens. Great Bear notes that our team is ready to move forward in advancing both the Community Benefit Agreement and establishing a clear pathway to ensure the Métis voice is meaningfully reflected in our work. Great Bear notes their excitement to continue this conversation and build on last night’s discussions with you and the leadership of the NWOMC. NWOMC leadership and Great Bear staff noted the importance of discussions and advancing dialogue.	
C-13328	25/03/06	Ontario Ministry of Environment, Conservation and Parks (MECP)	In Person	Site visit to tour the Great Bear Project with the MECP. The main purpose of the site visit was to inspect the clean-up of a small spill which occurred at the Maple Leaf laydown area of about 5L of engine oil and 2L of hydraulic oil. The spill was caused by improper storage and decanting practices, with a small pin hole being found in the secondary containment tray holding the waste oil drum. MECP noted that they were happy with the clean up and saw no issues and were happy that Maple Leaf was proactive by placing a liner under the tent structure, and also suggested that it wouldn't be a bad idea to have a small seacan to temporary store waste oil and contaminated soils before being sent for final disposal. MECP noted they were interested in the on-ice drilling conducting noting that one of the rigs on the ice wasn't operational and that there was no issues with the rigs. The AEX was then inspected, and was overall positive with discussions surrounding a further seacan for waste oil, discussions surrounding fugitive dust conditions, and operations regarding warmer month management, where the mobile crusher will be placed, and asked to be kept up to date on MTU. The MECP staff in attendance also noted that they hadn't been overly involved in the ISWECA for AEX but notes that it is all hands on deck currently and is looking into the possibility of opting into preparing a Spill Prevention and Contingency Plan in order to comply with AEX regulations.	Engagement not related to Project
C-13257	25/03/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the drone imagery of the AEX site to the MECP. MECP acknowledges their receipt and notes that they will review the updated imagery from the drone flights shortly. GBR also notes that they will get follow-up footage shortly.	Engagement not related to Project
C-13324	25/03/07	Ontario Ministry of Natural Resources (MNR)	Email	Communication from the MNR apologizing for the last-minute cancellation of the proposed February 26 9:00am meeting. MNR notes that they will reschedule the meeting, and further notes details on a previous GBR question surrounding the permit application for Water Crossing #7 (WC7) clause regarding timing, stating that the MNR considers the activity low risk, and the timing window in the clause can be removed, but it is still advisable to do so within the summer months in order to ensure the proper installation for the culvert, but the MNR can still amend this clause to accommodate the work if needed. GBR thanked the MNR and provided times to reschedule the meeting, as well noting their appreciation to the amendment to remove the clause, thanking the MNR for their review and support. MNR asked GBR to accept the follow-up email as formal confirmation that the MNR approves the removal of the specified condition and authorizes the installation for WC7 as detailed in the current work permit.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-13326	25/03/10	Ontario Ministry of Natural Resources (MNR)	Email	MNR reaching out to GBR regarding a path forward on the natural gas line which crosses Tuzyks Road in discussions with Mines, noting that GBR can submit an application for a mining surface lease under s.84 of the Mining Act, with Hydro One also confirming where Enbridge plans to cross the road. MNR requested a project file of the site in order to better articulate its location. MNR also notes that it will be going through the location of the forestry research plot site which is excluded from the lease, noting that this should be amended to include the forestry research plot. GBR responded and noted that they will be submitting the road crossings to the Ministry of Mines as discussed, and asking as GBR assumed Enbridge has submitted an easement for their portion of the Natural Gas line which runs through the old Forestry Plot area and are waiting for their application for land tenure to be approved.	
C-13327	25/03/10	Ontario Ministry of Natural Resources (MNR)	Email	MNR reaching out to GBR to clarify regarding their previous meeting with LSFN and WFN regarding the Chukuni River Withdrawal Order for RL01/82 regarding clarification for the area required for the effluent discharge pipeline into the Chukuni River, asking for GBR to confirm the effluent discharge pipe is 50m wide and the shoreline reservation is a depth of 120m. MNR is looking to confirm the width of the area required within the 120m shoreline reserve that GBR would like the MNR to revoke from the Withdrawal Order RL01/82. GBR clarifies that they are requesting the withdrawal of the shoreline alienation for the area within the shoreline reservation requested under the surface rights application, attaching the LEA-110167 which serves as the foundation for the proposed surface rights only lease, which also includes the planned AEX Right-of-Way and diffuser location.	MNR_031025_03.pdf
C-13611	25/03/10	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Land Tribunal Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	Ontario Land Tribunal issuing a decision regarding ANA's application for the subject to leave appeal regarding the MECP decision to issue a Permit to Take Water (PTTW) ECA for GBR to take water for the Great Bear Gold Project's AEX program. The OLT spoke to the application ANA submitted, and the support given in favor of the application including letters from Dr. Branfireun and Dr. Morin regarding mercury and ML-ARD in relation to the MECP's precautionary principal approach. OLT notes that the MECP did not take the precautionary principal in granting the PTTW as there is scientific uncertainty noted in the ANA materials, and specifically the sensitivity within the Dixie Creek to methylation, and methylmercury production cited by Dr. Branfireun. OLT concludes based on the evidence ANA has provided, the Tribunal finds that there is good reason to believe no reasonable person could have made the decision to approve the permit, noting the additional environmental condition in the area, and further sensitivity to methylmercury. OLT noted that there is onus on the Applicant to satisfy the Tribunal and show that this permit would pass the significant harm test. The Tribunal ruled in favor of ANA regarding the leave to appeal.	Engagement not related to Project
C-13323	25/03/12	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Call between GBR and the MECP, with the MECP relaying information regarding the AEX PTTW appeal, and GBR noting that they are continuing with construction activities with adjustments in place as needed while GBR works through the appeal with the MECP. MECP brought up further drilling activities undertaken by GBR with GBR noting they are working with their noise consultant to isolate noise sources, which will be incorporated in analysis and monitoring. GBR also noted that they will be revising current monitoring plans and details, as the original submission to the MECP had tight timelines and further information is available, and changes were made at the request of First Nations Partners. MECP notes that they have not reviewed the monitoring plan as of March 12th, 2025.	Engagement not related to Project
C-13322	25/03/13	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR is requesting a short extension to provide input on Methylmercury ETR members, with reasons to be explained during the call. The team will also update on ANA's continued reluctance to support data collection and outline the latest communications and path forward. Regarding the Impact Assessment, GBR aims to collaborate with the Agency to structure an IS document that facilitates an efficient process (6-month IR, 6-month IA). Discussions will focus on aligning the IS structure, particularly around Federal VCs—Fish and Fish Habitat, Migratory Birds, and Indigenous Peoples—as per the Agency's Dec 18 letter. Species at Risk will be addressed within the Pathway VC framework, leveraging Ontario's Endangered Species Act. GBR seeks clarity on the Agency's vision for a pathways assessment and whether appending information versus including it in the IS body is more efficient. Pathways will cover key environmental and socio-economic factors, with assumptions on baseline, mitigation, residual effects, and pathway conclusions. Baseline reports and technical support documents will be appended, and other IS sections will align with TISG guidance.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14642	25/03/14	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	IAAC opened the initial bi-weekly touchpoint meeting, emphasizing key agenda items. GBR requested an extension for the External Review Panel, citing concerns about the appointees' academic background and potential bias. IAAC acknowledged the feedback and confirmed communication with the Policy Branch. GBR also raised concerns about the Ontario Land Tribunal (OLT) decision framework, emphasizing its broad impact on the industry. IAAC clarified that the External Review Team (ETR) will submit a report during the Impact Assessment comment period, with a draft posted for public and Indigenous review. GBR flagged ongoing delays in obtaining socio-economic data from ANA, with repeated extension requests. IAAC advised documenting ANA's non-responsiveness per Section 6.2 of the TISGs and considering alternative data sources. GBR stressed shifting regulatory requirements affecting approvals and timelines, while IAAC reiterated the need for clear communication and structured data collection. Discussions on Valued Components (VCs) focused on alignment in presenting pathway VCs efficiently. IAAC confirmed not all pathway VCs require significance assessments and encouraged a structured approach to documentation. GBR committed to ongoing engagement to support regulatory clarity. IAAC updated on the Mercury Study Plan and coordination with MECP, discussing sulphate implications. GBR noted operational challenges with regulatory expectations across Ontario. Both parties agreed to continue discussions. Next steps include ongoing discussions on the Study Plan and Zone of Influence (ZOI) considerations, with bi-weekly meetings ensuring alignment and regulatory compliance.	IAAC_031425_01.pdf
C-13424	25/03/17	Red Lake Municipality	Virtual	Socio-economic baseline virtual interview conducted by SLR with Red Lake Fire Services over Microsoft Teams. RLFS described their organization noting that the department is served by 44 volunteer firefighters with 1 Fire Chief and four stations across Red Lake. RLFS described challenges regarding MacKenzie Island and firefighting within the island is limited to the equipment on the Island, as well as the limited transportation. RLFS also notes that they do have some financial restraints regarding servicing the area and keeping supplies up to date.	
C-14648	25/03/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly call with MECP included ongoing updates on key permits. The meeting covered several key topics related to the ongoing regulatory review of the Great Bear Project. MECP announced staff changes to support the review process. Regarding Industrial Sewage Works, Great Bear is finalizing an information request but highlighted challenges in obtaining stamped drawings within the shortened review period. MECP agreed to consider this and scheduled a follow-up meeting, with information to be shared via SharePoint. The status of the review remains ongoing, with MECP set to provide draft materials and draft ECA conditions for Great Bear's input. MECP acknowledged the Ontario Land Tribunal (OLT) decision's impact on sulphate considerations but has yet to establish province-wide guidance. Great Bear requested MECP meet with federal regulators to discuss integration, to which MECP agreed. On ANA dialogue, MECP will provide draft materials once available and will take an adaptable approach in case of no response. Great Bear emphasized the value of proactive engagement, while expressing concerns about ANA's responsiveness. For PTTW, Great Bear confirmed it is preparing responses to prior inquiries. Lastly, Great Bear requested additional engagement meetings to address ongoing challenges, and MECP confirmed that ad-hoc meetings could be arranged as needed.	Engagement not related to Project
C-13425	25/03/18	Red Lake Municipality	Virtual	Socio-economic baseline virtual interview conducted by SLR with Red Lake Municipality's Director of Operations over Microsoft Teams. The baseline interview was conducted in order to understand Sewage and Waste Management within Red Lake. RLM noted their current staffing, as well as the current contract with GFL for recycling contracted for Circular Materials, as well as additional contractors handling curbside collection. RLM also noted that the current capacity for the solid waste is at 25%% full within their 40,000 cubic yards, and that the sewer is running at about 35% capacity, with further information available if needed regarding capacity per community. RLM gave more background regarding their existing infrastructure for waste and wastewater, as well as noting current plans with Indigenous Services Canada and provinces for a regional landfill. RLM also notes that competition with other businesses regarding wages and budgets are often a challenge. RLM also noted that water and wastewater is contracted out and provided further information for SLR if needed.	
C-13447	25/03/19	Ontario Ministry of Natural Resources (MNR)	Phone Call	Call with MNR regarding an update to the MOU for the Dixie Creek Bridge. The MNR noted that they have been busy, but this is being prioritized, and noted that they will get back to GBR shortly, as nothing else is needed, and confirmed GBR is good to keep using it while they await the MOU. GBR asked the MNR for an update on the LRIA - Designation of the Duty to Consult letter, with MNR noting that this will be flagged, and GBR noting they will continue with consultation as planned. GBR also sought clarification surrounding the surface rights and applications and if there would be any effects to the LUP submitted by Enbridge for the NG line through the area. MNR confirmed no delay should be caused by this, but that this could benefit from further discussion.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14606	25/03/20	Ontario Ministry of Natural Resources (MNR)	Letter	GBR reaching out to the Minister of the MNR to extend GBR's sincere congratulations on their re-election and appointment as the Minister of Natural Resources. GBR notes that this Project showcases GBR's deep commitment to responsible and sustainable resource development which creates jobs and supports broader prosperity in Northern and Indigenous communities across northwestern Ontario. GBR notes that they are further committed to working closely with the provincial government as they advance the Project, which will contribute significantly to Ontario's economic prosperity in creating over 700 jobs, and poised to become one of Ontario's largest gold mines with 500,000 ounces of gold expected to be produced annually. GBR notes that they look forward to continuing work with the MNR in order to secure necessary permits as GBR works towards commercial production in 2030, noting that the MNR's support to date is greatly appreciated. GBR also noted that they would appreciate the opportunity to meet with the Minister in order to discuss the ongoing development and further congratulated the Minister.	Confidential engagement
C-14608	25/03/20	Ontario Premier's Office	Letter	GBR reaching out to the Office of the Premier to extend GBR's sincere congratulations on their re-election and appointment as the Premier of Ontario. GBR gave further background regarding the Great Bear Project, with GBR noting that they are further committed to continuing to work closely with the provincial government and ministries as they advance the Project, which will contribute significantly to Ontario's economic prosperity in creating over 700 jobs, and poised to become one of Ontario's largest gold mines with 500,000 ounces of gold expected to be produced annually. GBR notes that they look forward to continuing work with the Province in order to secure necessary permits as GBR works towards commercial production in 2030. GBR also noted that they would appreciate the opportunity to meet with the Premier in order to discuss the ongoing development and further congratulated the Premier.	Confidential engagement
C-14609	25/03/20	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Northern Economic Development and Growth (MNEDG)	Letter	GBR reaching out to the Minister of the Ministry of Northern Development and Growth to extend GBR's sincere congratulations on their re-election and re-appointment to the Cabinet as the Minister of Northern Development and Growth. GBR notes that this Project showcases GBR's deep commitment to responsible and sustainable resource development which creates jobs and supports broader prosperity in Northern and Indigenous communities across northwestern Ontario. GBR notes that they are further committed to working closely with the provincial government as they advance the Project, which will contribute significantly to Ontario's economic prosperity in creating over 700 jobs, and poised to become one of Ontario's largest gold mines with 500,000 ounces of gold expected to be produced annually. GBR notes that they look forward to continuing work with the MNDG in order to secure necessary permits as GBR works towards commercial production in 2030. GBR also noted that they would appreciate the opportunity to meet with the Minister in order to discuss the ongoing development and further congratulated the Minister.	Confidential engagement
C-14610	25/03/20	Northern Development and Indigenous Economic Reconciliation (MNDIER)	Email	GBR reaching out to the Minister of the Northern Development and Indigenous Economic Reconciliation (MNDIER) to extend GBR's sincere congratulations on their re-election and appointment as the Minister of Northern Development and Indigenous Economic Reconciliation. GBR notes that this Project showcases GBR's deep commitment to responsible and sustainable resource development which creates jobs and supports broader prosperity in Northern and Indigenous communities across northwestern Ontario. GBR notes that they are further committed to working closely with the provincial government as they advance the Project, which will contribute significantly to Ontario's economic prosperity in creating over 700 jobs, and poised to become one of Ontario's largest gold mines with 500,000 ounces of gold expected to be produced annually. GBR also adds that they are working toward electrification of the Mine, and have developed partnership with LSFN and WFN, who are working on an Anishinaabe-led Impact Assessment as well as expressing interest in partnering with Hydro One to deliver transmission upgrades. GBR notes that they look forward to continuing work with the government in order to secure necessary permits as GBR works towards commercial production in 2030. GBR also noted that they would appreciate the opportunity to meet with the Minister in order to discuss the ongoing development and further congratulated the Minister.	Confidential engagement

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14611	25/03/20	Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT)	Email	GBR reaching out to the Minister of Economic Development, Job Creation and Trade (MEDJCT) to extend GBR's sincere congratulations on their re-election and re-appointment as the Economic Development, Job Creation and Trade. GBR notes that this Project showcases GBR's deep commitment to responsible and sustainable resource development which creates jobs and supports broader prosperity in Northern and Indigenous communities across northwestern Ontario. GBR notes that they are further committed to working closely with the provincial government as they advance the Project, which will contribute significantly to Ontario's economic prosperity in creating over 700 jobs, and poised to become one of Ontario's largest gold mines with 500,000 ounces of gold expected to be produced annually. GBR also adds that they are working toward electrification of the Mine, and have developed partnership with LSFN and WFN, who are working on an Anishinaabe-led Impact Assessment as well as expressing interest in partnering with Hydro One to deliver transmission upgrades. GBR notes that they look forward to continuing work with the government in order to secure necessary permits as GBR works towards commercial production in 2030. GBR also noted that they would appreciate the opportunity to meet with the Minister in order to discuss the ongoing development and further congratulated the Minister.	Confidential engagement
C-13477	25/03/21	Ear Falls Municipality	Virtual	Socio-economic baseline virtual interview conducted by SLR with the Ear Falls Parks and Playgrounds, Recreation, and Waste Management Departments over Microsoft Teams. The department gave an overview on capacity on waste, noting the current landfill has around 80 years of capacity, and that there is possibility for expansion. Ear Falls also gave a rundown on the parks and recreation areas and staff, and noted that though they are a smaller Municipality, they are catching up, specifically with recycling and blue bin operations set to start in 2026. Ear Falls also noted that overall the community is enthusiastic about the Project, and the work being done.	
C-13596	25/03/25	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	Short phone call from the MECP Enforcement Officer regarding the previous March 6th site visit and asking GBR if any pumping had occurred under the PTTW or if the MTU was activated, and if this is currently true. GBR responded that no pumping of water was needed, and no pumping of water is being conducted currently as the MTU is not commissioned or operational at this moment, or on the previous MECP site visit. The MECP also noted that an information request was received regarding the permits for the Great Bear Resources Project. GBR noted that they will be in contact later in the week in order to discuss an emergency pumping plan in the event it is needed. The MECP noted that as it currently stands the storage in on-site ponds will be able to manage this, and that they look forward to further conversation.	Engagement not related to Project
C-13751	25/03/26	Ear Falls Municipality	Virtual	Interview between GBR/SLR and Ear Falls Municipal Operator for the Water and Wastewater department. Interviewing organizations within EF & RL to get a better understanding of the programs they oversea and their organizations operational capacity.	
C-14530	25/03/31	Red Lake Municipal Council	Email	Red Lake Municipality Councillor reaching out to GBR regarding the proximity of a burial site near the Project Area. The Councillor noted that they were asked to relay the information and asked if GBR would be able to confirm the proximity. GBR followed up with the Councillor and noted that they will get back to the stakeholder regarding this information.	
C-14532	25/03/31	Ontario Ministry of Natural Resources (MNR)	Email	MNR inquiring about the designated signatory for GBR Ltd. as they are finalizing the re-issuance of the Dixie Creek MOU. GBR confirmed who to reach out to.	
C-14942	25/03/31	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly call with MECP focused on ANA dialogue, ECA ISW and PTTW. Ministry of the Environment, Conservation and Parks (MECP) confirmed that the engineering drawings for the Industrial Sewage Works are technically sufficient and do not require stamping at this time. GBR has submitted all requested information requests to MECP, with the final memorandum on the proposed water treatment approach pending from the vendor. MECP is actively working on sulphate considerations, noting that discussions with the Impact Assessment Agency of Canada (IAAC) confirmed the Province will set the criteria. MECP is working to determine background sulphate levels and aims to provide this data to Kinross by the end of the week. Additionally, they have requested excel copy of data for ease of review supporting there assessment of the proposed mixing zone, which may smaller than initially predicted by Great Bear. MECP has asked GBR to model maximum sulphate concentrations beyond the mixing zone and evaluate additional loading impacts to support these efforts. MECP is also requesting an evaluation of sulphate treatment technology for the main project, with GBR noting that treatment feasibility is not the issue, but rather the challenges associated with by-products. MECP may expand monitoring requirements to include sediment and biota for mercury and methylmercury, with GBR highlighting that an ongoing methylmercury study will help inform this process. A site-wide Sulphate Reduction Plan is being proposed as part of the Environmental Compliance Approval (ECA), and MECP intends to issue guidance on this by the end of the week, followed by a meeting to discuss further. Regarding the Ontario Land Tribunal (OLT) challenge, GBR has been in dialogue with MECP legal counsel to explore	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14576	25/04/01	Ontario Ministry of Natural Resources (MNR)	Email	MNR reaching out to GBR to note conditions with the extended March 31st, 2025, for the Notification of Removal Activities for Permit No. P10206, noting GBR is still approved as the expiry for Harvest Approval is dated until March 31st. GBR further followed up and formally requested to extend the PTR until August 2025 in order to accommodate a paused during the wolverine denning window as discussed with the Red Lake MNR. GBR notes they were advised to follow up March 31st regarding the upcoming PTR year which begins April 1, 2025. GBR notes that if any additional information is needed for MNR to let GBR know. MNR responded to let GBR know they will be working on this.	
C-14951	25/04/02	Red Lake Municipality	Virtual	Microsoft Teams meeting with SLR and the CAO of the Municipality of Red lake to discuss the organization and operational capacity.	
C-14717	25/04/03	Asubpeeschoseewagong Netum Anishinabek Lac Seul First Nations Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	MINES emailed GBR to provide the early exploration permit on behalf of the Director of Exploration NW.	
C-14725	25/04/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	The Ministry of the Environment, Conservation and Parks (MECP) provided site-specific guidance to support its review of the Advanced Exploration (AEX) industrial sewage works Environmental Compliance Approval (ECA) and the full Permit to Take Water (PTTW) applications, while also considering the Ontario Land Tribunal's decision granting leave to appeal the scoped PTTW to Great Bear. MECP outlined several key expectations, including ensuring that sulphate concentrations in discharged water do not exceed approved background levels beyond a minimized mixing zone, in accordance with Procedure B-1-5. MECP is finalizing guidance on background concentration and flow requirements and has requested additional water quality and sediment data (2020-2025), including updates on analytical methods. GBR must also update its predicted contaminant concentrations using final leachate/humidity cell test results (Q4 2024, submitted March 31, 2025). Further, GBR is required to determine the maximum allowable daily sulphate concentration in its discharge, assess the impact of sulphate loading on mercury methylation in the receiving stream, and potentially reassess the mixing zone. In follow up Great Bear and MECP exchanged several communications related to meeting planning and communications form MECP that contrary to the detailed request, MECP did receive surface water quality data from ~2020-2025 monitoring events as you/team had indicated Monday. MECP requests that the file be updated with analytical methods or method detection limits for this data. Sediment data for the entire sampling period is still requested.	Engagement not related to Project
C-14179	25/04/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sent MECP the March IR engineering documents for the ECA ISW through the GBR SharePoint. GBR asked the MECP to confirm once they are able to access the documents, as well as the possibility of scheduling a follow-up meeting for further discussion. The MECP noted that they were unable to access the files sent over on the SharePoint. GBR follows up to note that MECP cannot access the SharePoint and notes that the access issue should be fixed. The MECP thanked GBR for fixing the access issue and sent a chart looking to confirm the place of files within the SharePoint for each item requested. GBR responded with where to find each of the requested items within the SharePoint. GBR provided MECP with the link to the IR Response folder and noted that there is one memo outstanding for item#2 and #3 that will be submitted on April 4, 2025. MECP emailed GBR to thank them for the response table and noted that they will review the materials. MECP also noted that they understand the Engineering Request Item #2 and Item #3 to be outstanding. GBR emailed MECP to provide a memo to address the outstanding information for Item #2 and Item #3 in the March 11 engineering request. MECP emailed GBR to confirm receipt of their email.	Engagement not related to Project
C-14659	25/04/04	Impact Assessment Agency of Canada (IAAC) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR staff inquired whether the limits imposed would apply at closure, referencing the Mining Act and Provincial Water Quality Guidelines (PWQO). MECP deferred to the Ministry of Mines on Mining Act compliance but acknowledged the long-term closure considerations, noting that sulphate is not part of PWQO. MECP agreed that perpetual water treatment is not reasonable and discussed potential mitigative approaches, including a sulphate reduction plan. Regarding sulphate assessment, WSP sought clarification on background sulphate calculations, whether MECP would provide guidance, or if existing CORMIX and GBR modeling would be leveraged. MECP confirmed it would review GBR's submitted data and provide validation or request modifications. MECP is assessing flow considerations, including 7Q20 flow and hydrology data, while acknowledging that previously approved effluent limits remain unchanged. However, the review now includes sulphate as a contaminant of concern, limiting any reassessment to mixing zone and concentration parameters. MECP committed to providing a response by the end of next week. WSP requested clarification on additional modelling requirements, expressing concerns over revising mass-balance calculations due to time constraints. MECP expects a response from WSP within its April 2, 2025, email. Great Bear emphasized the importance of timely permit approvals, particularly due to fisheries habitat conditions in the Chukuni River, and committed to integrating mitigative approaches to meet MECP's requirements. Dialogue with ANA was noted as critical to the process. MECP also confirmed that subject matter experts (SMEs) are reviewing documents related to the scoped PTTW, with priorities shifting in response to the Ontario Land Tribunal decision and hearing.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14748	25/04/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR met with MECP to discuss AEX water management and dust suppression. This included management strategies for dust suppression , PTTW, and potential pumping from dug sump and preventing deterioration of pond walls.	Engagement not related to Project
C-18903	25/04/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	GBR had a phone call with MECP to discuss AEX Water Management. GBR proposed and emergency pumping plant that was supported by MECP, and noted the risk of the sump on the AEX footprint. GBR requested MECP approval of pumping the sump if required, and provided MECP with capacity and permeability of the sump. GBR and MECP agreed that pumping the sump will not impact the permit to take water, and GBR will alert MECP if pumping is required. GBR and MECP also discussed dust suppression strategies.	Engagement not related to Project
C-14940	25/04/08	Firedog Communications Hydro One Lakehead University	Email	GBR emailed Hydro One to provide the GBR First Nation team contacts. GBR proposed an introductory call and provided dates of availability. Hydro One copied an additional team member in the email chain and advised GBR to set up a call. Fire Dog Communications noted that they are looking forward to the next steps. GBR noted that they look forward to connecting. Hydro One provided dates and times of availability to meet. GBR confirmed that their team is available to meet on April 17 at 2:00 pm. Hydro One requested GBR provide alternative dates of availability. Fire Dog Communications noted that they have a flight on the 17th and requested the meeting be scheduled on the 16th. GBR noted that they are available on April 16 and provided their preferred time to meet.	
C-15005	25/04/10	Asubpeeschoseewagong Netum Anishinabek Deputy Minister's Office Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Letter	Letter from the Asubpeeschoseewagong Netum Anishinabek (ANA) to Great Bear Resources Ltd. informs the company that they hold claims, leases, or other mining tenures within the Grassy Narrows Interim Core Area of Interest for Mining. The ANA expresses concern that GBR. has staked or acquired claims within this Core Area and on their Territory without informing the First Nation of their plans. The letter emphasizes the longstanding connection of the ANA's community to the claimed area, their practice of the Anishinaabe way of life, and the importance of the area for exercising their Treaty rights. The ANA also highlights the cumulative effects of past industrial impacts on their community and territory, including mercury pollution, damming, industrial logging, and mining activity, which have caused significant harm. The letter asserts ANA's Treaty rights, the potential impact of mining claims on their Treaty Land Entitlement claim, and ongoing litigation related to Crown failures to protect their rights. It also raises concerns about unmet legal duties and the need for the Crown and industry to respect ANA's laws and rights. The ANA calls on Great Bear Resources Ltd. to halt all staking and mineral exploration activities in the Core Area, commit to obtaining free, prior, and informed consent for any activities, and engage with the community to address their concerns.	ANA_041025_01.pdf
C-14888	25/04/11	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Automatic reply from MECP EA Notices to acknowledged receipt of their email.	MECP_041125_01.pdf
C-14889	25/04/11	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP Class EA Notices to provide the Notice of Commencement sent to Indigenous communities and the public regarding the temporary generators and 115 kilovolt transmission station on GBR property.	Engagement not related to Project
C-14890	25/04/11	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP EA Notification to provide the Notice of Commencement sent to Indigenous communities and the public regarding the temporary generators and 115 kilovolt transmission station on GBR property. MECP EA notification emailed GBR to thank them for the Notice of Commencement and to ask that they fill out a project information form and send it back to them.	Engagement not related to Project
C-14730	25/04/14	Fisheries and Oceans Canada (DFO)	Email	DFO emailed GBR to advise that they have reviewed the proposed Project and provided their Letter of Advice (LOA) for the proposed works. DFO emailed GBR to request a status update on the GBR Project and asked for an estimated timeline for construction and completion. GBR emailed DFO to advise that there has been a delay due to provincial permitting and that they hope to initiate the installation of the culverts in the fall. GBR noted that they will provide advanced notice to DFO when a firm construction start date is known. DFO emailed GBR to advise that the LOA is only valid for 1 year from the date of issue. DFO noted that it is their understanding that construction for the GBR Project has not yet commenced as the DFO has not been notified of any commencement works. DFO noted that therefore the LOA dated March 27, 2024 is no longer valid. DFO recommends that GBR provide any proposed changes from the original Request for Review submission, including construction schedule. Any changes should be provided to the DFO for future iterations of the Letter of the LOA. GBR emailed DFO to provide an update on the GBR Project. GBR noted the project status and constructions schedule, monitoring infrastructure and activities, and flow supplementation and dewatering updates. GBR noted that the only changes include minor adjustments to culvert lengths and a revised installation schedule to align with the June 16 fish window.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14733	25/04/14	Ontario Ministry of Natural Resources (MNR)	Email	MNR emailed GBR to provide the conditions with the date extended to March 31, 2025. MNR noted that GBR is still approved to operate under the same approval number since the expiry for the Harvest Approval was dated till March 31. MNR noted that GBR still needs to contact MECP about the Wolverine window that is in place for the approval on their part. GBR emailed MNR to submit a formal request to extend the PTE until August 2025. GBR noted that they have paused all chipping activities during the wolverine denning window and plan to resume after May 31. GBR noted that all trees have been cut down however the delay in chipping requires the extension. GBR noted that during prior conversations that they were advised to follow up on March 31 to request an extension for the upcoming PTR year beginning April 1, 2025. GBR noted that the wood remains onsite and ready for processing after May 31, 2025. MNR emailed GBR to note that they will get to work on the extension. GBR emailed MNR to request an update regarding the PTR amendment. MNR emailed GBR to note the staff member working on the amended PTR and advised that they will receive a response shortly.	
C-15630	25/04/14	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Virtual bi-weekly meeting held between GBR and the MECP regarding Great Bear AEX which discussed the ECA ISW and information GBR provided to the MECP, the acknowledgement the MECP provided and further surface water review for sulphate considerations. The MECP will provide the information regarding SW when ready, with GBR to review. The PTTW was also discussed with further ANA Comments provided on April 14, 2025, with GBR indicating that they can resubmit the PTTW application and include the scoped permit in order to revoke the appealed PTTW. GBR also provided a general update of current onsite activities as part of the AEX work.	Engagement not related to Project
C-14735	25/04/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to provide the issued PTTW (No. 3438-D7RQJT0 FOR GBR's AEX Project. GBR emailed MECP to provide a formal request from GBR to request the revocation of issued PTTW (No. 3438-D7RQJT). MECP emailed GBR to provide a letter noting that they are supportive of the PTTW revocation, however the PTTW is under appeal before the OLT so the revocation request will need to be considered by the OLT.	Engagement not related to Project
C-14978	25/04/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to provide further clarity to their April 2 email. MECP noted that the background value is currently being used as a value for the Advanced Exploration GBR provide phase due to a lack of specific guidelines for sulphate. MECP requested that GBR provide the noted information and assessment based on meeting background after a mixing zone and using the background sulphate concentration and flow from the Chukuni River.	Engagement not related to Project
C-14979	25/04/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to thank them for the clarification and asked if there was an update on their review of the background sulphate concentration and flow.	Engagement not related to Project
C-14980	25/04/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to note that they do not have an update yet.	Engagement not related to Project
C-19303	25/04/16	Red Lake Hospital Red Lake Municipal Council Red Lake Municipality West Red Lake Gold	In Person	Community Health Care Committee Meeting held in the Municipality of Red Lake on April 16, 2025. The Committee discussed old business items including the sale of physician lot and homes provided for physician recruitment as well as possible places for the leases to occur. A recruitment update was provided regarding doctor recruitment efforts, an update on finances, the Terms of Reference five year review, and the establishment of regular CHCC meetings in the future. The meeting concluded and notes that the next meeting is still to be determined.	RLM_041625_01.pdf
C-14981	25/04/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to note that they will provide the minimum flow and background sulphate consideration next week.	Engagement not related to Project
C-14887	25/04/21	Hydro One	Email	GBR emailed Hydro One the Notice of Commencement.	
C-14604	25/04/23	Ontario Ministry of Natural Resources (MNR)	Email	The Minister of the MNR's Executive Assistant reaching out to GBR in response to the March 20th, 2025, letter sent to MNR's Minister to congratulate the Minister on re-election to the Cabinet to schedule a meeting to discuss the GBR Project. The MNR asked who will be attending and what dates and times would work. GBR confirmed who would be attending, and what dates would work. MNR responded with a date, time, and location for an in-person meeting.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-14947	25/04/23	Asubpeeschoseewagong Netum Anishinabek Cavalluzzo Crown-Indigenous Relations and Northern Affairs Canada Deputy Minister's Office Environment and Climate Change Canada Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Indigenous Affairs and First Nations Economic Reconciliation Indigenous Services Canada Ministry of Energy and Electricification Ontario Ministry Indigenous Affairs & First Nations Economic Reconciliation (IAFNER) Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	On April 22, 2025, Asubpeeschoseewagong Netum Anishinabek (ANA) submitted a letter to the Ontario Minister of Natural Resources opposing Kinross Great Bear's request for Lakes and Rivers Improvement Act (LRIA) location approval to install a treated effluent discharge pipeline and diffuser into the Chukuni River. ANA objects to the Crown's delegation of consultation responsibilities to Great Bear, emphasizing that consultation with a treaty partner must remain a direct Crown duty under the nation-to-nation relationship established through Treaty 3. ANA asserts that the LRIA application is premature, as Great Bear does not yet have the required environmental permits — including a Permit to Take Water and an Environmental Compliance Approval — necessary for discharging effluent. ANA raises serious concerns that the proposed discharge would exacerbate mercury and methylmercury contamination in the English-Wabigoon River System, harming the health, cultural practices, and Treaty 3-protected rights of ANA community members. Furthermore, ANA strongly criticizes Ontario's scoping of consultation at the low end of the duty to consult spectrum, arguing that a cumulative impacts approach is necessary to properly assess industrial activities in their territory. ANA further explains that a cumulative impacts analysis demonstrates that its free, prior, and informed consent is required for LRIA approval. ANA provides evidence of its long-standing connection to the Red Lake area, citing historical reports, fur trade records, church records, and ethnological work documenting traditional activities such as hunting, fishing, trapping, gathering, gardening, spiritual practices, and trading along the Red Lake fur trade routes. The project site lies within	Engagement not related to Project
C-14982	25/04/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP and requested an update.	Engagement not related to Project
C-14983	25/04/24	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to apologise for the delay and noted that the information should be available on April 25.	Engagement not related to Project
C-14746	25/04/25	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR in follow up to a call to re-share the ministry's approach to site specific guidance for the AEX industrial sewage works. The minimum requirements are outlines as follows: - The discharge would not raise sulphate concentrations above an approved background downstream of an appropriate mixing zone in accordance with Procedure B-1-5 (the mixing zone is to be as small as possible) - GBR should update their predictions contaminants of concerns in the proposed dischargeGBR to assess for MECP consideration, what the maximum concentration of sulphate is on a daily basis and compare against background conditions - MECP to review and provide suggested background and flow - Reassessment of the mixing zone may be needed based on updated leachate testing and identification of potential contaminants - GBR to carry out a sulphate loading assessment for MECP review - GBR to undertake an evaluation of the installation of treatment to remove sulphate - Essentially have zero concentration of sulphate - GBR is not expected to have 100% removal but GBR should assess what is possible - Monitor concentrations to ensure it does not exceed background conditions - A mixing zone under no circumstances is to be used as a alternative to practical treatment If GBR determines that treatment is not feasible, the company should be prepared to provide information as to why there is not a reasonable and practical treatment and survey of available	Engagement not related to Project
C-15400	25/04/25	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	ANA's legal team distributing a response letter to GBR regarding the proposal for Environmental Compliance Approval for Industrial Sewage Treatment Works and suggesting to the MECP that they should reject the submission from GBR. ANA cites a lack of consistency with the MEND 2009 sampling approach and geochemistry testing methods, the Project potential to contribute to methylmercury formation in area water bodies due to the release of sulphate. The ANA legal team cites these reasons for the MECP to not approve the application, noting that this would be reckless and dangerous to ANA, and has the ability to add further harm to the community.	
C-14886	25/04/27	Ear Falls Fire Rescue Ear Falls Municipality Enbridge Northwestern Health Unit OPP Red Lake Detachment Red Lake Hospital TbayTel	Email	Clerk Treasurer Administrator of the Township of Ear Falls emailed GBR to provide the registration information for family safety night.	
C-16325	25/04/28	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and MECP's bi-weekly meeting to provide regular activities and updates on the GBR AEX Project which took place on April 28, 2025. The meeting discussed the ISW sulphate considerations under review from GBR and MECP. New comments received on the ECA from ANA on April 25, 2025, were discussed, with further discussion regarding engaging with the community. The PTTW was also discussed, with next steps due to the revocation of the scoped PTTW.	Engagement not related to Project
C-14984	25/04/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to request the baseline sulphate data.	Engagement not related to Project
C-14985	25/04/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to note that they will provide the information as soon as possible. MECP noted that they are sharing the information internally first.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15038	25/04/29	Asubpeeschoseewagong Netum Anishinabek Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to ask if they are going to be following up with ANA to provide the updated study plan. GBR noted that they are meeting internally to discuss. GBR noted that they can provide comments back to ANA but noted that their experience has been that Grassy Narrows only engages with the Crown. GBR asked for clarification on the ARD/ML data. IAAC noted that ANA advised that the ARD/ML was incomplete and did not follow provincial mandated methodology. IAAC noted that they asked when they would be able to see studies related to ARD/ML along with detailed designs for waste management and baseline data at the unimpacted reference sites.	
C-14882	25/04/30	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to thank them for allowing their staff to attend a site tour. MECP provided a list of staff that will be in attendance. GBR advised that there would also be a sit down portion of the tour and asked that the MECP confirm the number of vehicles that will be onsite.	Engagement not related to Project
C-14883	25/04/30	Transport Canada	Virtual	GBR had a virtual meeting with Transport Canada to discuss navigability. Topics of discussion included consultation, fisheries offsetting, Transport Canada's approach to assessing waterbodies, Transport Canada confirmed that they received the Navigable Waters Report. GBR is to follow up to provide a summary document of consultation activities, summary of consultation results on navigability discussion. WSP is to provide the presentation and further information regarding the waterbody/watercourse.	
C-15331	25/04/30	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP staff reaching out to GBR regarding an on-site meeting and site tour to inform the MECP and MEM regarding the proposed GBR AEX Project and current site preparation. GBR notes that they have a meeting date as well as a rough schedule for discussion surrounding the work completed to date. GBR requested that the number of vehicles used by MECP/MEM staff for transport to site in order to inform the construction and safety team.	Engagement not related to Project
C-14607	25/05/01	Ontario Ministry of Natural Resources (MNR)	In Person	May 1, 2025, meeting with the Minister of the MNR. GBR congratulated the Minister on their appointment to the MNR, noting that with emphasis placed on development in the re-election campaign the MNR will play a critical role in the government. GBR gave further Project details to the Minister, including the creation of hundreds of direct local well-paying jobs, and the production of 500,000 ounces of gold annually through the multi-decade mine life. GBR also further notes that they are currently advancing the final permits for the AEX phase, noting that there have been some delays in permitting from other Ministries, and spoke to current bottlenecks that they hope that can be reformed. GBR noted that they look forward to partnering with the MNR to further develop this Project and values the support from MNR to date.	Engagement not related to Project
C-15130	25/05/01	Ear Falls Municipality Smart Modular Canada	Email	Smart Modular Canada provided a catalogue of common models. The Township of Ear Falls thanked them for providing the catalogue.	
C-15143	25/05/01	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to provide a status update of the External Technical Review for the Great Bear Gold Project. IAAC noted that they will also be sharing the information with ANA. IAAC noted that they have finished identifying potential experts for the External Technical Review and listed their names. IAAC invited GBR to discuss their concerns at a meeting on May 1. GBR emailed IAAC to express their concerns with one of the named candidate's for the Expert Technical Review, citing a narrow focus of their expertise. IAAC emailed GBR to note that during the meeting they discussed ARD/ML data and what was communicated by ANA experts was that the information surrounding ARD/ML was incomplete and did not follow provincial mandated methodology. IAAC noted to ANA that they do not have ARD/ML data at the moment and they are working with the province to determine how their legislative mechanisms would look for ARD/ML.GBR emailed IAAC to note that they have supplied ANA with the baseline data. GBR noted that they disagree that their ARD/ML is incomplete and does not follow provincial mandated methodology. GBR noted that the main mine geochemistry baseline report is anticipated to be completed in the near future. IAAC emailed GBR to note that ANA was not clear on what data they are referring to at the time but assumed it was related to AEX in some way. IAAC requested that GBR reach out to advise on how things are progressing.	
C-16206	25/05/01	Common Voice Northwest Energy Task Force Ontario Ministry of Energy & Mines (MOEM) Thunder Bay Superior North Town of Marathon	Letter	NOMA sent a letter to the Minister of Energy and Mines to discuss the challenges in nearby communities when the development of new infrastructure is outside of municipal boundaries. The NOMA noted that municipalities need to have a say in the major infrastructure developments such as transmission lines and asked the Minister to introduce a proximity element to the municipal approval process.	NOMA_050125_01.pdf
C-14602	25/05/05	Ontario Ministry of Natural Resources (MNR)	Email	Thank you for the meeting regarding the Great Bear Project. Attached are the OMA submissions on EASR system amendments and the One Project, One Process protocol. Our priority is to include construction dewatering in EASR eligible activities, but changes may be deferred to fall, risking the summer construction season. Let me know if you have questions.	
C-15129	25/05/05	Ear Falls Municipality Smart Modular Canada	Email	Smart Modular Canada emailed GBR and the Township of Ear Falls to provide information on two modular homes.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15088	25/05/06	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Fisheries and Oceans Canada (DFO) Indigenous Affairs and First Nations Economic Reconciliation Indigenous Services Canada Ministry of Energy and Electricification Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	ANA raised concerns about the integrity of the Impact Assessment process for the Great Bear Project, citing a lack of trust in IAAC and the exclusion of their selected experts from the External Technical Review (ETR). They objected to experts proposed without their input and submitted alternative candidates for consideration. ANA also emphasized their loss of faith in Ontario's permitting system, particularly following the scoped Permit to Take Water (PTTW) approval—later revoked after their successful appeal—which they believe demonstrates the province's inability to protect the environment or Indigenous rights. ANA reiterated that the Advanced Exploration (AEX) phase must be included in the federal assessment due to its potential impacts on their lands and waters. Additionally, they objected to being excluded from discussions on the Environmental Compliance Approval (ECA) and demanded full transparency and participation in future decisions affecting their territory. ANA requested a pause in the assessment process until they have reviewed key technical information, including baseline data and the ML-ARD report. They reaffirmed that no project activities should proceed without their free, prior, and informed consent.	
C-15157	25/05/08	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and the Ministry of the Environment, Conservation and Parks (MECP) met to address technical requirements for the Advanced Exploration phase of the project, focusing on the Permit to Take Water (PTTW) and the Environmental Compliance Approval for Industrial Sewage Works (ECA ISW). MECP confirmed that all conditions discussed apply solely to Advanced Exploration and do not set a precedent for the main project. MECP will provide written confirmation of this distinction. MECP requested that GBR update its assimilative capacity modelling using the 7Q20 minimum flow value and a baseline sulphate concentration of 6.3 mg/L for the Chukuni River. GBR, through its consultant WSP, agreed to revise the modelling accordingly. MECP emphasized that these conservative values are defensible and should not materially affect project outcomes. GBR raised concerns about the feasibility of meeting the 30 mg/L sulphate limit at the end-of-pipe and proposed exploring adaptive or site-specific compliance approaches. MECP acknowledged the need for flexibility and expressed willingness to work collaboratively on solutions, provided that limits remain enforceable and scientifically sound. As next steps, GBR will update the model and review potential compliance options that allow for operational flexibility. MECP will review sulphate conditions linked to the PTTW, provide formal written confirmation of the scope of current decisions, and consider site-specific conditions based on feasibility. Both parties agreed to maintain close coordination to ensure permitting remains timely, practical, and environmentally responsible.	Engagement not related to Project
C-15168	25/05/09	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	IAAC and Great Bear bi-weekly touchpoint meeting, emphasizing key agenda items and considerations in shaping the Impact Assessment. IAAC provided an update on the External Technical Review (ETR) Panel, confirming the shortlisting of candidates from an initial list of 30. One candidate remains the only candidate supported by both Great Bear and ANA. IAAC continues to seek consensus, particularly on Query 1 related to methylmercury production, identifying an other potential candidate. IAAC will provide four additional names for Query 3 and requested GBR's review. GBR raised concern that ANA appears to be seeking candidates aligned with a predetermined outcome, rather than scientific objectivity. IAAC disagreed with this interpretation and committed to providing additional information following the meeting. GBR requested further clarification on the exclusion of a doctor, who they view as a qualified and objective candidate. IAAC noted concerns regarding potential conflict due to his ongoing remediation work. GBR committed to re-reviewing the full list of names once additional information is provided. GBR provided an update on modelling, requesting IAAC and provincial input ahead of submission of response to ANA. IAAC agreed to schedule follow-up discussions in upcoming meetings. GBR noted that regional data shows the Chukuni watershed as having the lowest mercury concentrations in fish population. IAAC inquired about the timeline for a response to the methylmercury study plan. GBR confirmed that while high-level responses can be provided, they prefer to validate the modelling first. GBR also raised concern about ANA's approach, noting that feedback has lacked constructiveness and appears intended to prevent project advancement, contrasting with productive feedback	
C-15610	25/05/10	Red Lake Municipality	Email	The Municipality of Red Lake Program Coordinator emailed GBR to invite GBR to participate in the Community Clean-Up On June 2, 2025.	
C-14738	25/05/13	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	ANA emailed GBR to provide a letter and map regarding the GBR Project. The letter outlined the following: Area Subject to ANA Interests, Area Subject to Cumulative Effects, Area Subject to Treaty Land Entitlement Claim, Area Subject to Litigation, Area Subject to Unmet Legal Duties, ANA law and rights, and request to meet and identify any third party interests.	ANA_051325_01.pdf
C-15223	25/05/13	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to provide the draft summary notes, committeemen's and deck. GBR emailed MECP to note that they do not see anything in the summary notes that better define next steps.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15458	25/05/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to the MECP to initiate an information request relating to Condition 49 and 50 of the ESA Permit for AEX activities, noting that a formal data sharing agreement can be implemented in order to have the information shared. GBR is also seeking additional information regarding the location of any known hibernacula in Northwestern Ontario as well as any previous or ongoing monitoring of hibernacula in NWO, as well as possible candidate sites for hibernaculum or sites previously investigated and deemed unsuitable for hibernaculum. The MECP offered to meet to discuss the request.	Engagement not related to Project
C-15010	25/05/15	Ear Falls Municipality	In Person	Representatives from GBR attended the annual Ear Falls Safety Night on Thursday, May 15th. The event showcases local organizations that work to make our communities safe and healthy, providing public education and awareness to Ear Falls residents. GBR staff provided overview of Project, promoting health and safety efforts across the Great Bear site.	
C-16334	25/05/15	Red Lake Municipality	Email	GBR emailed the Municipality of Red Lake to inform them that SLR Consulting will be conducting interviews for a social effects assessment and noted that their input is important to the process. GBR emailed an alternative contact with the Municipality of Red Lake to note that SLR Consulting will be conducting interviews to collect information about the services and infrastructure in Red Lake. The Municipality of Red Lake emailed GBR to note their availability and that they are willing to speak with SLR Consulting.	
C-14909	25/05/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide the mixing zone calculations and the proposed sulphate limits.	Engagement not related to Project
C-16326	25/05/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the memo regarding the New Mixing Zone calculations and proposed sulphate limits to the MECP for discussion later on in the week. The memo was prepared in support of the ECA ISW needed for water management activities for the Great Bear AEX Program, and discusses surface water aspects within the low-flow conditions of the Chukuni River as well as effluent quality levels, and the proposed sulphate limit, noting that the proposed effluent levels will keep sulphate concentration in the Chukuni within the range of baseline conditions.	Engagement not related to Project
C-14967	25/05/20	Red Lake Municipality	Virtual	Microsoft Teams meeting with SLR and Municipality of Red Lake Treasurer. The interview discussed the organization and their operational capacity.	
C-15220	25/05/20	Ontario Ministry of Natural Resources (MNR)	Email	GBR emailed MNR to inquire about their LUP lease noting that the area no longer requires an LUP and is now covered by their lease. GBR noted that they are setting up ML/ARD field bins at the location. GBR also noted that they will be submitting a PTR shortly for the remaining tree clearing. MNR confirmed that GBR no longer requires the LUP for the weather station. MNR provided the contact information for the staff member that should be contacted for WRT and PTR. MNR asked if there is value to meet monthly for a touchpoint. MNR noted that the LUP permit has been cancelled as of May 20, 2025.	
C-15463	25/05/20	Fisheries and Oceans Canada (DFO)	Email	DFO contacting GBR to conclude their review of the proposed GBR AEX within the Chukuni River, and distributed a letter of advice for the proposed works. GBR responded and noted that the work has been delayed and will be initiating the installation of culverts as stated in the fall. DFO further responded and noted that the letters provided are only valid for 1 year. DFO requests that if there are any proposed changed from the original request for review submission that there may be changes to the flow plan associated with provincial permits, and that these changes should be provided to the DFO for review. GBR Thanked DFO for their reminder for the expiry of the letter of advice and gave further information of changes in the original plans, noting that some culverts are still needing to be installed. GBR also noted that monitoring infrastructure and activities are still ongoing and that any activity is scheduled to align with the June 16 fish window. DFO asked for further information surrounding the discussions with MEM regarding a modified supplementation rate and information on fish rescue from previously installed culverts. GBR provided the requested information surrounding fish rescue which occurred as well as the Groundwater Monitoring and Supplementation Trigger Plan for AEX activities.	Engagement not related to Project
C-15625	25/05/20	Firedog Communications Hydro One	Email	GBR reaching out to Hydro One to discuss an introductory call to understand what is being planned for the North of Dryden IRRP Project as well as Indigenous engagement. Hydro One and GBR discussed meeting times, with GBR asking further about MOU/LOI on FN equity participation in the Dryden Red Lake transmission line.	
C-15059	25/05/21	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to confirm the dates for when the draft permit will be issued for review and available to share with ANA.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15161	25/05/21	Independent Electricity System Operator (IESO)	Email	GBR requested confirmation that its updated electricity demand forecasts for both the Advanced Exploration and Production phases of the Great Bear Project have been incorporated into the North of Dryden Reference Case. GBR noted that the Red Lake area is expected to exceed its existing Load Meeting Capability (LMC) by 2028, and urged IESO and Hydro One to develop interim solutions to bridge the gap until new transmission infrastructure is in place. GBR emphasized the need for reliable, low-cost power to align with its project timeline, stressing that a new 115 kV line from Ear Falls to Red Lake may only meet short-term needs and would not provide adequate redundancy during maintenance outages. GBR recommended that a 230 kV line be evaluated as a sub-option under Options 1 and 2 to meet medium- to long-term regional needs. The company also flagged the aging condition of conductors on the existing E2R and E4D circuits, which could lead to outages and reliability issues in the future. These risks should be factored into infrastructure planning and LMC evaluations. GBR requested more information on development timelines, staging options for construction, anticipated costs, and cost allocation. They stressed that delays in power infrastructure could materially impact the success of multiple mining projects, including Great Bear. Given the regional economic significance of the project and its close collaboration with Indigenous communities, GBR asked IESO to prioritize transmission development in Northwestern Ontario.	IESO_052125_01.pdf IESO_052125_02.pdf
C-16360	25/05/21	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR reaching out to the MECP in follow-up with the May 21, 2025, call. GBR is looking to confirm some items regarding the ECA ISW application. GBR was looking to confirm the date that the draft permit will be available in order to understand the timeline for when this can be shared with Indigenous communities. GBR also requested the 7Q20 low flow/hydro slide presented to be distributed as well as confirming the timeline for the supplemental modelling memo issued to the MECP, which will include CORMIX modelling results for daily maximum, the water quality graph, and the comprehensive table showing the proposed monthly average and daily max effluent limits.	Engagement not related to Project
C-14999	25/05/22	Ear Falls Municipality	Email	GBR emailed the Mayor of the Township of Ear Falls to provide the Notice of Completion for the Temporary Generators. The Mayor of the Township of Ear Falls thanked GBR for the communication.	
C-15000	25/05/22	Red Lake Municipality	Email	GBR emailed the Mayor of the Municipality of Red Lake to provide the Notice of Completion for the Temporary Generators.	
C-15001	25/05/22	Independent Electricity System Operator (IESO)	Email	GBR emailed IESO to provide their feedback to the regional planning webinar. GBR provided the completed feedback form and additional confidential feedback. GBR requested confirmation of receipt of the email and attachments. IESO emailed GBR to thank them for their feedback. IESO confirmed that the confidential feedback will not be posted publicly.	
C-15089	25/05/22	Asubpeeschoseewagong Netum Anishinabek Cavalluzzo Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO)Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	ANA reiterated that Great Bear has not responded to their January 31, 2025 concerns regarding the proposed Mercury Study Plan. They emphasized the need for additional time to consult with experts and submitted a third expert report from Source Environmental Associates, which identified further deficiencies. Key concerns include non-alignment with the Tailored Impact Statement Guidelines, lack of mapping and cumulative effects analysis, exclusion of historically contaminated downstream areas, and weaknesses in baseline methodology. ANA called for more comprehensive and frequent sampling, improved site selection, and justification for omissions, including unnamed waterbodies. They continue to seek meaningful revisions before the study proceeds.	ANA_052225_01.pdf
C-15169	25/05/22	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	ANA highlighted the need for more time and support to meaningfully participate in the Impact Assessment process for the Great Bear Gold Project. They noted that short response timelines have limited their ability to fully engage, conduct internal reviews, consult with experts, and carry out necessary studies, including those related to land use, social conditions, and baseline environmental data. ANA emphasized the importance of ensuring community-led processes that reflect their lived experience, including the impacts of historical mercury contamination. They requested additional time—specifically, 180 days—to prepare a submission on social impacts and to review secondary sources of traditional knowledge. ANA also recommended that revisions to the Mercury Study Plan be completed in consultation with their experts and reviewed by the upcoming IAAC Expert Technical Review group. They asked GBR to consider a pause in the process to allow for more collaborative engagement and requested written confirmation that the project team will support ANA's ability to participate meaningfully at all stages.	IAAC_052225_01.pdf
C-15526	25/05/22	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Working group meeting between MECP, GBR, and GBR's consultant team in order to discuss the AEX ECA Sulphate Discharge Limits which took place at 3:30 on May 21st, 2025. GBR presented slides in order to aide in the discussion on the proposed effluent limits for sulphate with the MECP requested supplemental CORMIX modelling and summary rationale for the WSP proposed 7Q20 low-flow statistic compared to the one recommended by the MECP. MECP noted that the recommendation provided is the most appropriate flow statistic, and accepted the proposed mixing zone and acknowledged that background concentrations were being achieved at its boundary.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15178	25/05/23	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	IAAC and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. IAAC provided an update on recent communications from ANA related to the Methylmercury Study Plan, in addition to other letter communications. GBR advised that while a Methylmercury Study Plan response had been planned for release, new information submitted by ANA dated April 29, 2025, requires further review. As a result, GBR will issue a comprehensive response targeted to next week addressing both the original and updated materials. GBR also expressed concern with ANA's January 31, 2025, submission, noting that the comments were vague and lacked specific technical feedback, characterizing them as general critiques rather than substantive input. GBR sought clarification from IAAC on whether ANA's consent would be required for the Methylmercury Study Plan to proceed. IAAC confirmed that consent is not a requirement; rather, the Methylmercury Study Plan serves an informative role and can be reviewed by the Expert Technical Review (ETR) to support technical understanding. IAAC emphasized that while the ETR can contribute expert input, it is not a decision-making body nor a forum for policy or rights-based determinations. Its function is to complement the assessment process with evidence-based findings. GBR reiterated concerns about the objectivity of ANA's proposed experts and the potential for the ETR's findings to be misused or misunderstood publicly, particularly in light of prior permit revocations linked to disputed methylmercury studies. IAAC acknowledged the importance of maintaining public confidence and confirmed that the ETR's role	IAAC_052325_01.pdf
C-15264	25/05/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the MECP EA notifications to provide the notice of completion.	MECP_052325_01.pdf
C-15222	25/05/26	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide a list of action items from their call on May 21, 2025. This includes distribution of the slide deck, supplemental modelling memo required CORMEX modelling results, water quality graph and 1 comprehensive table showing proposed monthly average and daily max effluent limits. MECP emailed to provide additional action items noting that the modelling memo should also include background values and updated CORMIX modelling results for all contaminants of concern. MECP noted that the document is important for consultation purposes MECP noted that they require written submission of the treatment installation plan to remove sulphate. GBR emailed MECP to note that they are committed to providing the information and asked why the discharge limit would change. GBR noted that they need to progress the permit ASAP. GBR noted that the MECP had advised that the discharge limits would not change on multiple occasions. MECP emailed to clarify that they are asking for assimilative capacity assessment and mixing zone lengths be updated to reflect the daily maximum concentrations which will not change the end of pipe limits already accepted by the MECP. MECP noted that it is important to receive the updated document as soon as possible to avoid any delay to schedule.	Engagement not related to Project
C-16332	25/05/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide a list of action items discussed during their call and asked the MECP to confirm if they are correct. This includes MECP to distribute 7Q20 low flow/hydro slide deck and the supplementary modelling memo to be updated and provided to the MECP. MECP emailed GBR to confirm the action items and add a couple additional items including confirming the background values for all contaminants of concern and updated CORMIX modelling results for all contaminates of concern. GBR noted that they are committed to getting the information but noted that they were told that the discharge limits would not change. MECP noted that they are asking GBR to reflect daily maximum concentrations which would not change the end of pipe limits already accepted by the MECP. MECP noted that this is to review mixing zone lengths and finalize consideration of any operation conditions. MECP followed up and asked when they can expect the updated mixing zone assessment document.	Engagement not related to Project
C-16362	25/05/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP following up with GBR following their May 26, 2025, meeting and providing the deck used in the meeting by MECP to GBR which guided the PTTW conversation. MECP provided the next steps on the when GBR will be submitting information, when the new PTTW with updated information as per previous agreements will be submitted, as well as the inclusion of a narrative that the water management on site and discharge will be managed by the PTTW, as well as the submitting of a memo which addresses the water management strategy.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15617	25/05/29	Asubpeeschoseewagong Netum Anishinabek Environment and Climate Change Canada Impact Assessment Agency of Canada (IAAC) Ministry of Energy and Electricification Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	ANA provided an update on its Preliminary Land Use and Occupancy Study, supported by Professor Anna Willow. While full studies typically take three to ten years, the team is working to produce a preliminary report within six to eight months due to the accelerated Impact Assessment timelines. ANA emphasized that this information is critical for informed decision-making and requested that the assessment process allow sufficient time to incorporate land use data. They also urged that no project activities proceed that could affect ANA's land use until this information is properly considered. Communication also included an overview of the approach by a consultant anthropologist supporting ANA. The communication notes that she is assisting with the preparation of a Preliminary Land Use and Occupancy Study focused on ANA's Interim Core Area of Interest for Mining, particularly areas potentially affected by the proposed Great Bear Mine. The consultant, a tenured professor at Ohio State University with expertise in Anishinaabe land use and environmental relationships, noted that full land use studies typically require 3–10 years. Initial findings confirm both historic and ongoing traditional land use in the vicinity of the proposed mine, including hunting, fishing, trapping, gathering, and travel. The study has also documented strong community concerns regarding potential water contamination from mining and industrial activities. It is closed with a note that further updates will be provided as work progresses.	Confidential engagement
C-15153	25/06/02	Eagle Lake First Nation Hydro One Independent Electricity System Operator (IESO) Lac Seul First Nations Migisi Sahgaigan Ministry of Energy and Electricification Ontario Ministry of Energy & Mines (MOEM) Wabauskang First Nation	Email	Eagle Lake First Nation, Lac Seul First Nation, and Wabauskang First Nation issuing letter communication urging the Ontario government to prioritize the development of new transmission infrastructure north of Dryden to address pressing power supply limitations. With the existing line to Red Lake at capacity, there is a growing risk of development restrictions for surrounding First Nations at a time when new housing and community infrastructure are urgently needed. The Nations support the construction of a new 230kV line from Dryden to Red Lake as the preferred solution and emphasize that any project must involve their meaningful participation and consent. They are exploring a partnership with Hydro One, which has committed to its First Nation Equity Partnership Model, and are calling on the Province to designate Hydro One as the transmitter to advance the project and meet critical timelines.	MOEM_060225_01.pdf
C-15154	25/06/03	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	The Canadian Environmental Law Association, on behalf of ANA, submitted a formal response opposing the Environmental Compliance Approval (ECA) application by GBR for the proposed Great Bear Advanced Exploration Project. ANA maintains that GBR has failed to meaningfully address the substantive concerns previously raised. The company's February 2025 response merely highlighted past commentary without offering any new or responsive information. Independent expert reviews—particularly from Dr. Kevin Morin and Dr. Brian Branfireun—identified fundamental technical deficiencies in GBR's approach. Dr. Morin concluded that GBR's methods for assessing metal leaching and acid rock drainage (ML-ARD) do not align with the 2009 federal MEND guidelines, and that GBR has failed to produce the comprehensive geochemical assessments required for such projects. Dr. Branfireun found that GBR's treatment of sulphate and mercury data was flawed, with inaccurate data handling and unreliable analytical techniques that undermine the integrity of mercury risk assessments. The communication notes that ANA has also raised concerns that effluent discharge limits, accepted by the Ministry of the Environment, Conservation and Parks (MECP) in 2023 without notice to the community, are inadequate and do not protect against risks from pollutants such as methylmercury and sulphate. These limits do not account for the unique environmental conditions and cumulative industrial impacts already affecting the ANA watershed. The proposed treatment system is viewed as vague and incapable of removing the pollutants that threaten water quality and fish safety. ANA emphasized that GBR's application fails to incorporate the cumulative effects of ongoing industrial	Engagement not related to Project
C-17148	25/06/06	NorthWest EMS Ambulance Services Ontario Provincial Police Red Lake Municipality	Email	GBR reaching out to Fire, EMS, and Police regarding the possibility of a site tour.	
C-15397	25/06/09	Ontario Ministry of Natural Resources (MNR)	Email	MNR distributing a letter to GBR regarding the delegation of procedural aspects of consultation for the LRIA location for the approval of the treated effluent discharge pipe and diffuser. GBR acknowledged the letter and confirmed consultation with LSFN, WFN, and ANA have been completed to the level required in order to support the LRIA authorization including the proposed effluent discharge pipeline and diffuser into the Chukuni River and shared with communities along with all relevant technical documentation, with a summary of engagement activities conducted from June 2023 to May 2025.	Engagement not related to Project
C-15398	25/06/09	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	GBR following up with Transport Canada regarding Indigenous Consultation or Engagement Records which pertain to navigability which took place regarding the Great Bear Project. GBR provided the record of Indigenous engagement activities pertaining to navigability to Transport Canada, with a note for TC to reach out to GBR if any further information is needed, and noting that GBR is currently in preparation with an intent to submit to IAAC for 2025.	TC_060925_01.pdf
C-17150	25/06/09	Ear Falls Municipality	Email	The township of Ear Falls provided GBR with criteria for disposing of waste at the municipal landfill. GBR requested a copy of the Environmental Compliance Approval, which was provided by Ear Falls. Ear Falls also confirmed fees are based on volume rather than weight.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17158	25/06/09	Association Francophone de Red Lake Chukuni Communities Development Corporation ed Lake District Adult Learning Center Harmony Centre for Community Living Many Paths NGI - Northern Gas Installers Ontario Ministry of Energy & Mines (MOEM) Red Lake Airport Red Lake Marine Red Lake Municipal Council Red Lake Municipality West Red Lake Gold	Email	Chukuni Community Development scheduled a meeting on June 11th to plan the upcoming 100th Anniversary celebration. GBR thanked them for the invite but were unable to make the meeting. GBR confirmed they are committed to a booth in the park on the Saturday and providing a 5 min “past, present, future” of the Project for the community meet & greet. Chukuni thanked GBR for the confirmation.	
C-15267	25/06/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Bi-weekly call with MECP focused on ANA dialogue, ECA ISW and PTTW. MECP and Great Bear Resources discussed sulphate management, groundwater review, and next steps for the Permit to Take Water (PTTW). Great Bear confirmed it is preparing a sliding scale approach to manage sulphate within seasonal background variability and will issue supporting details to MECP. MECP noted that minutes of the May 8 meeting had been issued for Great Bear’s review, with next steps outlined therein. MECP also confirmed provincial work is ongoing to review sulphate and mercury methylation science, with findings anticipated in the coming months. Great Bear requested MECP input into the IA modelling to ensure alignment with provincial and federal expectations. MECP confirmed groundwater review is ongoing, with findings to be issued shortly. Regarding the PTTW, MECP acknowledged the revocation of the prior permit and requested clarification on next steps. Great Bear reiterated the importance of sulphate resolution to the critical path and explained that the Mobile ECA would only be used during construction, approximately one year, transitioning to a permanent treatment plant after the portal is complete. MECP noted a potential need to amend the Mobile ECA to address sulphate concerns and flagged the importance of clear public messaging to avoid perceptions of misleading changes. MECP outlined two submission pathways, both requiring reposting to the Environmental Registry of Ontario (ERO) with integration of OLT conditions and sulphate parameters: Submission of a comprehensive permit including construction works, replacing the prior document with a treatment option for sulphate.	Engagement not related to Project
C-17143	25/06/10	Red Lake Municipality	Email	Red Lake Municipality reaching out to GBR to ask for an emergency contact for GBR in order to be able to respond in the case of an emergency for their Emergency Plan contact list. GBR provided two emergency contacts for Great Bear in the event of an emergency.	
C-15457	25/06/12	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR submitted issues a formal response to technical concerns raised by the Canadian Environmental Law Association (CELA) and ANA regarding GBR’s application for an Environmental Compliance Approval (ECA) for industrial sewage treatment works at the Great Bear Advanced Exploration Project (ERO No. 019-8718). GBR confirms that its methodologies for acid rock drainage (ARD) and metal leaching (ML) are consistent with MEND 2009 and Ontario Regulation 240/00, and have been implemented by qualified experts with independent third-party review. GBR rejects allegations of non-compliance or inadequate data and affirms that mitigation measures exceed regulatory requirements, including conservative design elements to eliminate off-site risk. GBR maintains that its baseline data, analytical methods, and interpretation meet applicable scientific and regulatory standards, and that concerns raised represent differences of professional opinion rather than deficiencies in the technical record. GBR cautions against misrepresentation of its submissions and reiterates its commitment to compliance and environmental protection.	Engagement not related to Project
C-15517	25/06/12	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide a draft key issues work plan for the Great Bear Gold Project, intended for discussion and covering plans for Q3 2025. GBR requested availability for a call to review the document.	
C-17175	25/06/13	Chukuni Communities Development Corporation Ontario Ministry of Energy & Mines (MOEM) Red Lake Airport Red Lake Indian Friendship Centre Red Lake Municipality	Email	CCDC distributing the follow-up actions for businesses and agencies from the June 11, 2025 meeting to discuss the 100 Years of Mining Celebration. The follow-up actions note that GBR will provide a 5 minute presentation at the Legion followed by a booth at the park on the day of the anniversary celebration.	
C-15467	25/06/16	Ear Falls Municipality	Email	The Mayor of Ear Falls emailed GBR to request a meeting to discuss the 2025 plan and current Project progress, noting that they have received an increased amount of public inquiries. GBR requested the Mayor of Ear Falls provide their availability for a meeting.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15432	25/06/17	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Between April 11 and June 17, 2025, GBR received and responded to four technical submissions regarding its Permit to Take Water (PTTW) for the Advanced Exploration Project. The Source Environmental Associates Technical Memorandum (April 11, 2025) raised concerns about significant predicted baseflow reductions to Unnamed Watercourse 3 and Dixie Creek, adequacy of groundwater supplementation, cumulative flow impacts, reliance on historical climate data, lack of explicit drought contingencies, and potential unaddressed effects of open drillholes and missing predictive water quality modelling. GBR's June 17, 2025 response confirmed supplementation plans are flexible, cumulative effects remain below regulatory thresholds, a transient groundwater model was run to validate steady-state results, borehole grouting is ongoing, and a full water quality model was previously shared and appended. Dr. Branfireun's Expert Letter (April 11, 2025) critiqued updated flow data for the Chukuni River and baseline conditions for Dixie Creek and wetlands, arguing they may mask real impacts and enhance methylmercury risk. GBR's response clarified that updated flow statistics align with regulator-accepted methods, that local wetlands are surface drainage–dependent, and that water quality compliance, including sulphate and methylmercury, is addressed under the separate ECA ISW approval. The Canadian Environmental Law Association and ANA Comments (Jan–Feb 2025) highlighted perceived inconsistencies between draft and final reports, gaps in ML-ARD predictions, and risks from extensive open drillholes. GBR responded that technical refinements are routine and necessary, that geochemical analyses meet federal MEND (2009) standards, that peak water taking allowances are	Engagement not related to Project
C-15435	25/06/17	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	GBR met with the Impact Assessment Agency of Canada (IAAC) to review the draft Key Issues Briefing Work Plan and align on next steps for regulatory submissions and Indigenous engagement. IAAC acknowledged receipt of the Work Plan and confirmed that it generally addresses key required sections. Both parties discussed the timeline and sequence for reviewing priority topics, notably the methylmercury study plan and modelling, which were agreed to be the immediate focus, with technical meetings targeted for early July. IAAC emphasized the importance of timely provision of materials — ideally two weeks in advance — to enable meaningful review and feedback from technical experts. Discussion covered the planned approach integrating and speaking to Indigenous engagement and the validation of information. IAAC requested clarity on whether meetings would be collective or community-specific meetings in follow up. GBR confirmed a preference to first engage with the Crown to align on technical details before broader discussions with Indigenous communities. IAAC supported this staged approach but stressed the need for transparent communications to avoid community concerns, especially regarding the confidentiality and validation of ALIA data. Key technical questions focused on how Indigenous knowledge and values, such as wild rice, moose, caribou, trapping, access, and toxicity exposure, will be integrated into the Impact Statement and considered in the context of cumulative effects. GBR confirmed that detailed input will be incorporated progressively and aligned with federal jurisdiction requirements. Additional topics included planning meetings for fish habitat	IAAC_061725_01.pdf
C-15456	25/06/17	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Natural Resources (MNR)	Email	On June 17, 2025, the Ontario Ministry of Natural Resources (MNR) issued a written response to ANA (Asubpeeschoseewagong Netum Anishinabek) regarding concerns about the MNR's authorization for the Great Bear Resources Project. The letter confirms that procedural consultation responsibilities for the Lakes and Rivers Improvement Act location approval have been delegated to the proponent, who has the technical expertise to address community questions. The MNR affirms that ultimate consultation responsibility remains with the Crown, which will maintain oversight and participate in meetings as required. The Ministry acknowledges ANA's broader concerns about multiple approvals and has directed its district office to provide additional written follow-up. The community was encouraged to continue liaising directly with the Red Lake–Sioux Lookout District Manager to address ongoing matters.	Engagement not related to Project
C-15597	25/06/18	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed to provide their responses to the comments received from ANA dated February 21, 2025 (preliminary submission) and April 11, 2025 (proposed permit to take water). GBR's response highlights significant differences between the 2025 application and previous drafts, particularly regarding water quantity and quality assessments. GBR argues that the 2025 application focuses on water management and hydrologic function, while water quality issues are addressed under separate environmental compliance regulations. The response also critiques the reliance on preliminary reports and emphasizes the importance of final, certified documents for regulatory approval. Concerns about groundwater modeling, potential contamination from exploration drill holes, and the adequacy of water quality monitoring are raised, with GBR asserting that their studies comply with regulatory standards. GBR further emphasizes that water quality is managed under a separate Environmental Compliance Approval and that they have incorporated feedback from community consultation. Overall, Great Bear Resources states that they will continue to align with regulatory standards while ensuring environmental protection.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-15682	25/06/18	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	WSP following up with TC on behalf of GBR in order to provide the requested Indigenous Consultation or Engagement Records with the summary GBR resources provided to navigability within the Project. WSP requested for TC to let GBR know if there are any outstanding questions. WSP followed up further to confirm the receipt of the materials from TC. TC confirmed that they are currently reviewing the materials, and will reach out to GBR and WSP once the review is completed.	
C-16340	25/06/18	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to note that they will file the Methylmercury study report in December 2025.	
C-17108	25/06/21	Ear Falls Municipality	Email	The Mayor of Ear Falls emailed GBR to request a rescheduling of the June 30th meeting to discuss the current plan and progress, and will follow up with a new proposed date.	
C-15478	25/06/23	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to follow up on a discussion regarding upcoming meetings and the incorporation of information from First Nations into assessments. GBR mentions an updated file focusing on the next two months and suggests regrouping on First Nations participation in key issue briefings.	
C-16482	25/06/26	Ontario Ministry of Environment, Conservation and Parks (MECP) Wabauskang First Nation	Email	MECP emailed WFN to inform them that the MECP has received the PTTW for the GBR project. MECP noted that the PTTW is posted on the ERO for a 30-day comment period. WFN requested shapefiles from the MECP for their PTTW application. MECP emailed WFN to ask for clarification regarding the shapefiles. WFN noted that they are looking for the shapefiles from areas where water will be taken. MECP emailed GBR to note that they shared a copy of the PTTW package with WFN on June 13. MECP noted that WFN has requested shapefiles from the areas where water will be taken and asked GBR to provide them to WFN.	Engagement not related to Project
C-15612	25/06/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	MECP called GBR to requested a copy of the table provided by Horizon North with accessible links. MECP also requested the draft ECA.	Engagement not related to Project
C-16341	25/06/27	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide the cover letter and supporting documents to introduce GBR's methylmercury predictive model for review and discussion following their previous discussion at the key issue brief. The documentation provided by GBR outline the methylmercury modelling approach including data and methods used in order to form the baselines. GBR also attached a report done by external consultants which highlight the method used to assess the impact of sulphate and predict the formation of methylmercury from existing conditions. Lastly, GBR attached a memo which outlines the methodology for studying fish bioaccumulation and human health risk assessments related to mercury exposure from fish consumption. The memo details data collection on fish and water mercury concentrations, modeling approaches for predicting changes in these concentrations, and the assessment of human health risks based on fish consumption rates.	GBP_062725_01.pdf GBP_062725_02.pdf GBP_062725_03.pdf
C-16144	25/07/02	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Great Bear Resources Ltd. (GBR) has provided detailed responses to comments submitted by ANA and associated experts concerning its Permit to Take Water (PTTW) application (ERO No. 025-0579) for the Advanced Exploration Project submitted on July 2nd, 2025 by CELA. The company maintains that the scope of water taking under the PTTW is distinct from discharge activities, which are regulated under the Environmental Compliance Approval (ECA). All water discharge will be governed by the ECA, with strict conditions requiring water quality parameters, including sulphate concentrations, to meet natural background levels within the Chukuni River. GBR emphasizes that this approach reflects a precautionary and adaptive management framework intended to prevent environmental harm and that potential concerns about methylmercury generation have been addressed through these proactive measures. GBR rejects assertions that the data supporting the PTTW are incomplete or inadequate, stating that the baseline studies—initiated in 2022—are comprehensive, have undergone third-party laboratory analysis, and were reviewed by the Ministry of the Environment, Conservation and Parks (MECP). The company notes that adjustments to the mixing zone and flow statistics were made in response to regulatory input. GBR also clarified the sequencing and evolution of its PTTW submissions, indicating that the current application consolidates prior water-taking volumes and activities into a single streamlined proposal, with no overlap between project phases. Concerns regarding untreated water or reliance on mobile treatment systems were addressed by confirming that the current application is supported exclusively through fixed ECA	Engagement not related to Project
C-16336	25/07/02	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to note that they met with the IAAC government review team and the following points were raised. IAAC rerecommended pushing that start date of the briefings until late July or August. IAAC would like biweekly briefing sessions instead of weekly. IAAC noted that the preferred Key Issue Brief (KIB) dates would be Tuesday or Thursday between 1 and 4pm. IAAC noted that they will be able to attend in-person sessions for the methylmercury discussions but can not accept food or drinks. IAAC note that hybrid formats will work best for all staff. GBR noted that they provided information with IAAC on June 27 and asked IAAC to confirm if it has been shared with the team. GBR proposed to meet for the briefing on July 17 where they would discuss the water predictive, fish bioaccumulation and risk/exposure model(s) for this initial discussion due to the timeline shift. GBR noted that they will refine the schedule to bi-weekly briefing sessions. GBR note that they can accommodate the preferred timing for the KIB. GBR agreed to facilitate hybrid methylmercury workshops.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17465	25/07/02	Ear Falls Municipality	Email	GBR emailed the township of Ear Falls stating they would like to proceed with the Waste Disposal Site Agreement and asked if a meeting is required or if there are any additional steps.	
C-16227	25/07/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR provided the MECP with the location of the GBR property. MECP thanked GBR.	Engagement not related to Project
C-16204	25/07/07	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	CELA submission on behalf of ANA, dated July 7, 2025, consolidates expert evidence indicating that the proposed ECA for the Great Bear Advanced Exploration Project (ERO No. 019-8718) must be rejected in the opinion of ANA and CELA. Drawing on technical assessments from Dr. Kevin Morin (MDAG), Dr. Brian Branfireun (Western University), and Source Environmental Associates Inc., the submission outlines and asserts multiple critical deficiencies in Kinross's application and supporting documentation, particularly in relation to predicted contamination, sulphate discharge, and the failure to adhere to best practices as outlined in the federal ML-ARD Prediction Manual. Dr. Kevin Morin's MDAG report highlights significant and unresolved deficiencies regarding the prediction and mitigation of metal leaching and acid rock drainage (ML-ARD). Despite ongoing exploration activity since 2021, Kinross has failed to submit a comprehensive ML-ARD assessment as required under federal guidance. Dr. Morin asserts that the limited, outdated, and laboratory-constrained data submitted to date are insufficient for full-scale predictive modelling, and consequently, render the current detailed engineering design invalid. Notably, the proportion of potentially acid-generating (PAG) rock is now estimated at 70%, double the initial estimate, yet no redesign of the AEX plan has been proposed. Further, the water treatment plant (WTP) proposed by Kinross is found to be inadequate; the design omits effective sulphate removal and relies on dilution in the Chukuni River, a strategy that is non-protective and contrary to standard environmental safeguards. The MDAG report also identifies that basal liners are missing from critical overburden	Engagement not related to Project
C-16251	25/07/07	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	On July 7, 2025, ANA submitted comments on Great Bear Resources Ltd.'s (GBR) proposed Environmental Compliance Approval (ECA) for sewage works associated with the Advanced Exploration Project (AEX Project). The submission reiterated a series of previously raised technical concerns relating primarily to metal leaching and acid rock drainage (ML-ARD), water treatment design and performance, sulphate discharge levels, and baseline environmental data sufficiency. GBR responded by referencing and affirming the adequacy of its earlier submissions, notably those dated February 5, May 28, June 12, and July 3, 2025. In response to concerns about increased volumes of potentially acid-generating rock and ML-ARD predictions, GBR clarified that interpretations based on humidity cell testing were inaccurate and that mine rock proportions were calculated using a block model. Regarding treatment design, GBR maintained that the effluent treatment plant (ETP) design is appropriate for the scale and duration of the exploration program and that sulphate levels will meet background concentrations at the end of the approved mixing zone, as supported by its May 29 supplemental mixing study. GBR also clarified that generated sludge would be safely stored on lined rock pads in geo-tube bags. On broader concerns regarding methylmercury formation and sulphate loading raised by Dr. Brian Branfireun, GBR disagreed with the application of local riverbank study results to the entire downstream watershed. It further stated that sulphate discharge limits under the proposed ECA are protective and developed in accordance with Ontario's regulatory framework. GBR	Engagement not related to Project
C-16272	25/07/07	Canadian Environmental Law Association ANA Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	ANA emailed the MECP their comments on the Projects ECA. Comments expressed concerns regarding deficiencies in baseline data, concerns of wastewater discharge, and concerns of methylmercury.	
C-16205	25/07/08	Ontario Ministry of Natural Resources (MNR)	Phone Call	MNR called GBR to discuss the LRIA noting that consultation is complete and confirmed that they received the renewed Letter of Advice from the DFO. It was also noted that the Fish Salvage Licence is in the works and approved shortly. MECP requested GBR to provide the LRIA and Enbridge LUP. It was noted that the shoreline PTR is in the works and should be approved within the next week. Regarding the Land Tenure for Road Crossings, MNR noted that they are not able to go through MINES and that they are working on an easement strategy under the PLA. GBR noted that they plan to take over Tuzyks Road in the future and discussed the strategy of assisting SFL holder in e proposed new road that allows access to the south and avoid Tuzyks Road traffic. This would make Tuzyks Road safer for AEX. MNR requested a formal update on this and GBR agreed to present the plan at their next MNR meeting. GBR also mentioned that they will present plans to change a small portion of the effluent line. MNR suggested that GBR and MNR have a timing window meeting to discuss proposed works for things like tree clearing.	
C-16343	25/07/08	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to propose meeting dates and times and requested GBR's availability. GBR provided their availability for a meeting. GBR noted that they will provide the slide deck prior to the meeting. GBR provided the slide deck for the meeting.	
C-16254	25/07/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	GBR provided MECP with a copy of the responses received from ANA. GBR noted that no new issues have been raised.	Engagement not related to Project
C-16255	25/07/10	Red Lake Municipality	Email	GBR emailed Red Lake to advise that the new entrance to Tuzyks Road off Highway 105 will be temporarily closed from July 14 to 25. GBR noted that during this time all access to Tuzyks Road will be redirected through the old entrance.	
C-18253	25/07/10	Ear Falls Municipality	Email	The Mayor of Ear Falls emailed GBR to request a meeting on July 14. GBR confirmed they would attend the Council Chambers.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-16335	25/07/11	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide the presentation for the Key Issues Briefing that was held.	IAAC_071125_03.pdf
C-16705	25/07/11	Great Bear Gold Project Projet Aurifère Great Bear	Virtual	The meeting was convened by IAAC to receive an update on GBR's ongoing engagement and consultation efforts in support of its federal impact assessment submission. The SLR team, representing GBR, provided a comprehensive presentation addressing the overall approach, technical pathways, socio-economic data, and community-specific engagement processes. SLR reaffirmed that validation of secondary source information would not be accepted without direct data confirmation. They presented key themes of the approach including surveys, socio-economic inputs, and methodology for informing designated federal valued components (VCs), such as those tied to water, atmospheric, and terrestrial pathways. The presentation highlighted ongoing work and collaboration with Indigenous communities, including LSFN and WFN under the Anishinaabe-Led Impact Assessment (ALIA) structure, and continuing dialogue with NWOMC and ANA. Specific consideration was given to wild rice areas and trapline access, noting that while certain areas were under consideration, no preferred sites have been identified. Residual impact considerations were acknowledged as ongoing. IAAC posed a series of clarifying questions, particularly regarding wild rice habitat relevance, use of proxy data, and communication with ANA. IAAC also confirmed the need for further meetings with ANA to support engagement and dialogue. The Agency expressed satisfaction with the presentation's clarity and progress to date. The meeting concluded with action items limited to the delivery of slide materials by Great Bear.	IAAC_071125_01.pdf IAAC_071125_02.pdf
C-18296	25/07/11	Red Lake Municipality	Email	GBR emailed the Municipality of Red Lake to inform them the work on Tuzyks Road was rescheduled to August 4 to 15.	
C-16357	25/07/14	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide the responses to IAAC's comments on the draft Mercury Study Plan.	
C-16359	25/07/14	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided IAAC with the presentation for the planned workshop to compliment pervious memos provided on June 27.	IAAC_071425_01.pdf IAAC_071425_02.pdf
C-16750	25/07/14	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	GBR and WSP reaching out to Transport Canada to ask if there is any additional information is required from GBR and to note if a determination on the navigability of local watercourse and waterbodies would be available shortly. WSP noted that the impact assessment is currently being prepared concurrently to the federal permitting requested, with the submission for the Impact Statement to occur within the coming months. WSP notes that they believe in order to assess potential effects to navigable waters that a determination would be needed from Transport Canada, as soon as possible.	
C-16752	25/07/14	Ear Falls Municipality	In Person	GBR meeting with the Mayor of Ear Falls in order to discuss the Hydro One transmission line. The Ear Falls Mayor noted that they have been engaged by HONI and the IESO and has had two interviews with them previously, as well as an invitation to their webinar. The Mayor noted that previous conversations had already occurred with the GBR team regarding the proposed transmission line. The Mayor also noted ongoing meetings with the MPP and noted that the community of Ear Falls will benefit from the upgrade.	
C-18301	25/07/14	Ear Falls Municipality	Email	GBR emailed the Mayor of Ear Falls regarding an article published in the Toronto Star. GBR notes that many of the statements by ANA are inaccurate and unfounded and GBR disagrees with many of the statements. GBR highlighted their commitment to environmental stewardship and that they comply with applicable laws and regulations. GBR noted their attempts to engage with ANA have been refused, but they maintain a good relationship with LSFN and WFN.	
C-18302	25/07/14	Red Lake Municipality	Email	GBR emailed the Mayor of the Municipality of Red Lake regarding an article published in the Toronto Star. GBR notes that many of the statements by ANA are inaccurate and unfounded and GBR disagrees with many of the statements. GBR highlighted their commitment to environmental stewardship and that they comply with applicable laws and regulations. GBR noted their attempts to engage with ANA have been refused, but they maintain a good relationship with LSFN and WFN.	
C-16434	25/07/15	Ontario Ministry of Natural Resources (MNR)	Email	MNR emailed GBR to note that the Lakes and Rivers Improvement Act Permit Application and observed drawing have not been stamped, signed and dated. MNR requested GBR provide a stamped drawing. GBR provided a stamped drawing. MNR provided the LRA Location and Plans Specifications Approval No. RL-2025-LRIA-00002 pertaining to the Treated Effluent Discharge Diffuser located within the Chukuni River.	Engagement not related to Project
C-16435	25/07/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the MECP to provide their responses to ANA comments. Comments discussed concerns related to water quality, ETP design, and Surface Water Monitoring Plan.	Engagement not related to Project
C-16596	25/07/15	Red Lake Municipality	Email	The Economic Development Officer for the Municipality of Red Lake emailed GBR to note that they are collecting data on employment statistics and confirming previous numbers. They noted that they are looking at the GBR mine and would be interested in setting up a meeting to discuss further. GBR provided their availability for a meeting. The Municipality of Red Lake confirmed their availability. GBR followed up and provided an alternative meeting date and time. The Municipality of Red Lake confirmed their availability. GBR revised the meeting time.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-16702	25/07/15	Great Bear Gold Project Projet Aurifère Great Bear	Virtual	A multi-agency regulatory coordination meeting was held regarding the GBR Project, led by the Impact Assessment Agency of Canada (IAAC). IAAC opened the session by outlining its facilitation role and approach to Crown consultation. GBR and its consultants from WSP provided an overview of the Project, including its history, location, engagement with Indigenous Nations, and environmental baseline work. Key components such as site layout, mining methods, waste and water management strategies, and the phased approach to the federal Impact Assessment submission were presented. Federal and provincial agencies posed targeted questions on topics including Indigenous engagement, traditional knowledge integration, workforce capacity, fisheries compensation, heritage assessments, and economic modelling. GBR and WSP provided responses and confirmed ongoing or planned efforts to address these areas. IAAC closed the meeting by outlining next steps, including upcoming technical sessions, and emphasized its commitment to a transparent and coordinated review process involving all relevant regulatory bodies.	IAAC_071525_01.pdf
C-16245	25/07/16	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to request access to the compiled water quality, sediment, and fish tissue data for the Wabigoon and English River system. GBR emailed MECP to ask if there is an opportunity to get the information previously requested.	Engagement not related to Project
C-16601	25/07/17	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear Hutchinson Environmental Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	On July 17th, 2025, GBR hosted a technical engagement session with representatives from federal and provincial agencies to review the mercury and methylmercury assessment methodology for the Great Bear Project. The meeting focused on baseline studies, predictive modelling, and human health and ecological risk assessment. Technical presentations were provided by WSP and Hutchinson Environmental, outlining the current state of data collection and modelling design. WSP confirmed that baseline data collection is ongoing, including sampling of water, sediment, and fish tissue, and that regional consumption data and existing studies are informing the assessment. Hutchinson Environmental presented the structure of the methylmercury predictive model, which simulates sulphate generation, bioaccumulation, and downstream impacts across 23 connected waterbodies. The model uses conservative assumptions, is calibrated to annual average conditions, and will undergo sensitivity analysis to evaluate potential variability. Regulators posed questions on model assumptions, data inputs, and alignment with Indigenous knowledge and regional studies. Health Canada and ECCC requested clarification on risk assessment boundaries, cumulative effects, and incorporation of recent scientific literature. IAAC inquired about coordination with Indigenous data collection efforts and the approach to long-term impact modelling. GBR confirmed that efforts are being made to align with Indigenous-led studies and that the model outputs will inform the broader impact assessment. The meeting concluded with agreement that Crown agency feedback would be submitted in the coming weeks, and GBR	IAAC_071725_01.pdf
C-16701	25/07/18	Great Bear Gold Project Projet Aurifère Great Bear	Virtual	Impact Assessment Agency of Canada (IAAC) and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. IAAC provided an update that expert technical reviewers are still being finalized, with strong interest noted. IAAC emphasized the importance of transparent communication with Indigenous communities and confirmed they will notify Great Bear before any outreach. Great Bear confirmed that materials shared with the Crown will also be provided to Indigenous communities, though no direct outreach has occurred yet. Both parties acknowledged that a single coordinated review is unlikely due to logistical challenges, and that different approaches may be needed for ANA and NWOMC. IAAC noted ANA's Land Use and Occupancy Study may be shared by year-end and encouraged its inclusion in future IA packages. SLR confirmed this could be integrated, depending on timing and significance. Great Bear agreed, noting schedule implications will be considered. Great Bear raised concerns about receiving timely feedback from regulators. IAAC committed to follow up with ECCC, NRCan, and MECP to confirm comment delivery and will share NRCan correspondence. Great Bear confirmed availability outside the workplan to support dialogue and requested confirmation of ECCC's representative availability in August. IAAC will follow up. Great Bear also confirmed upcoming responses to ANA on the Methylmercury Study Plan.	IAAC_071825_01.pdf
C-17557	25/07/18	Chukuni Communities Development Corporation Red Lake Municipality	Email	The municipality of Red Lake invited GBR to Red Lake's 100th Anniversary of the Discovery of Gold Celebrations. GBR requested if there is a detailed agenda for the celebrations available, which was provided by the Chukuni community. Upon request, Red Lake also provided a list of attending dignitaries, and noted the speaking schedule is not yet established.	
C-14854	25/07/21	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide the Statement of Completion and Streamlined EA Project Information Form. GBR noted that the Statement of Completion was also mailed to the MECP Toronto address. GBR requested that the MECP confirm receipt of the submission and asked them to advise if additional information is required.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-16703	25/07/21	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Regular bi-weekly update call with MECP to discuss ongoing permits under consideration (ECA ISW, PTTW), and other aspects as needed. This meeting focused on finalizing the Environmental Compliance Approval (ECA) and advancing the review of the Permit to Take Water (PTTW) associated with the Project. The Ministry of the Environment, Conservation and Parks (MECP) confirmed that the final draft of the ECA would be issued imminently, pending internal Cabinet Office and Premier's Office briefings. Acknowledging the high legal risk, MECP is proceeding with issuance based on technical merit. The proponent confirmed readiness to address any appeal processes and committed to resubmitting comprehensive comment response tables for both permits. Both parties affirmed that the ECA and PTTW are interdependent, and that their issuance should be closely sequenced. MECP will issue a draft PTTW for review following the expected receipt of comments from ANA. Legal strategy, risk management, and operational interdependencies were key themes, with shared commitment to transparency and responsiveness as the process continues.	Engagement not related to Project
C-18362	25/07/21	Chukuni Communities Development Corporation Red Lake Municipality	Email	GBR emailed the Municipality of Red Lake to align on the Community Reception plan for the Red Lake 100th Anniversary of the Discovery of Gold celebration. The Municipality of Red Lake confirmed the amount of time allotted to each speaker. GBR also confirmed the will be setting up the park and will bring all required supplies.	
C-16762	25/07/23	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC reaching out to GBR to ask if the next Key Issues Brief will include or contain information on groundwater flow or quantity, and if detailed discussions or information related to water management relative to mining waste and water quality are expected. IAAC notes that NRCan will conduct a staff check if an expert from CanmetMINING can attend on August 14th. GBR responded to the request, noting that GBR believes groundwater and surface water topics should warrant their own session once modelling work has progressed to support a meaningful and informed discussion, anticipating this being feasible for October, with an August regrouping session to align for Q4 Key Issue Briefing planning. GBR also notes that the current presentation intended will provide a high level overview of water management at the Project and its associated infrastructure with further technical discussion to follow.	
C-16594	25/07/24	Transport Canada	Email	Transport Canada acknowledged receipt of documentation submitted in December 2024 related to the Navigable Waters Act and hydrology considerations for the Great Bear Project. Upon review, Transport Canada requested clarification regarding two specific features within the project footprint. First, additional details were requested on how Dixie Creek may be affected, specifically in terms of potential modifications to water flow and levels. Second, Transport Canada noted that unnamed Waterbody 4, which overlaps with the proposed Tailings Management Facility, lacks physical characteristic data in the submission. Clarification was requested on the potential impacts to Waterbody 4, along with a description of its physical attributes. Transport Canada emphasized that a Navigability Assessment is required to determine the applicability of the Canadian Navigable Waters Act (CNWA) to these waterbodies. Assessments are currently in progress, and Transport Canada committed to providing further direction once determinations are made.	
C-16859	25/07/24	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	On July 24, 2025, GBR emailed the MNR NHIC Requests and MECP (Species at Risk) to report sightings of bank swallow on June 26, 2025 and July 14, 2025. The areas were buffered and construction stopped within the buffer, to meet Condition 26 of the Endangered Species Act Permit NR-C-001-24. GBR noted that they will continue to monitor nest colonies for bank swallow activity.	Engagement not related to Project
C-16699	25/07/25	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR had a call with the MECP to discuss the affected area over a kilometer away from Rice Lake. They noted a lot of natural drainage features have been changed due to beaver dam removals and construction activities. They discussed the June 2025 ROW imagery to note that there is a wide isolation area created for construction and there are fish fences and ESC kept up. Noted that the entire area is considered isolated as a construction area. GBR team noted that they do weekly ESC inspections, indicating that July 10 it looked good and July 10 to 13 there were significant rain events. Noted that July 18 inspection shows TSS entrance to WX5 looked like it was downstream in the wetland as well but there is proof that the 2023 baseline conditions prove similar to pre-development conditions. Noted July 19 the construction team added more ESC to the area. There was more rain on July 21 and July 22 a drone flight was taken. July 23 they reviewed the drone images and it looks like some of the material is continuing to mobilize. Additional drone flight taken on July 23 to process flow of entire marsh. Noted that the baseline TSS shows a large range and that there have not been any baseline TSS collected during/after large rain events and its hard to compare if there is any change from baseline. MECP noted that it is contained within the beaver dam not in any surface water features that links to Rice Lake, Dixie Creek or Chukuni River-and they are determining if this is a reportable spill. MECP agrees that there is no environmental impact to the whole system as there is naturally high TSS. MECP verdict indicates that after reading through Part 10 of the definition of spill, it doesn't really discriminate against it its causing an impact or not. GBR challenged against the unintentional release portion of the	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17653	25/07/26	Ear Falls Municipality	Email	GBR emailed the township of Ear Falls requesting a meeting to discuss the landfill agreement. The township of Ear Falls sent GBR the information required to set up a Waste Disposal Site Agreement, including waste type, volume and company information and GBR provided the information.	
C-18904	25/07/27	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and MECP had a meeting to discuss a total suspended solids (TSS) release and erosion on the WX5 RoW. GBR noted the distance to Rice Lake and drainage feature changes due to construction. GBR confirmed the timelines of Erosion and Sediment Control inspections and significant weather events. MECP confirmed no environmental impacts occurred, and more investigation would be conducted before confirming if it's a reportable spill. GBR confirmed mitigating ESC measures and inspections would continue. MECP requested ongoing updates.	Engagement not related to Project
C-16593	25/07/31	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	In response to Transport Canada's request for additional information regarding the Great Bear Project, WSP, on behalf of GBR, provided clarifications regarding Dixie Creek and Unnamed Waterbody 4. For Dixie Creek, WSP confirmed that multi-disciplinary modelling has assessed the hydrological impacts of contact water collection and treatment activities. The maximum projected reduction in creek flow at the point of greatest effect is 10.4%, correlating to a water level decrease of less than 3 cm. These hydrological changes will be detailed in the forthcoming Impact Statement and appended modelling reports. Regarding Unnamed Waterbody 4, WSP provided physical characteristics: it is approximately 1.2 ha in area, 330 m in length, with an average depth of 1 m and a maximum depth of 2 m. The substrate is composed primarily of soft sediments, interspersed with boulder, bedrock, and coarse woody debris. The waterbody is part of a 940 ha watershed and ultimately drains into Unnamed Waterbody 1. It is located on GBR's mining leases and is characterized by dense emergent vegetation and remoteness from road access, resulting in existing constraints to navigability. WSP confirmed that Unnamed Waterbody 4 will be overprinted by the proposed Tailings Management Facility, and supporting imagery was provided to demonstrate location and existing site conditions. The submission concluded with an invitation for further clarification if needed to support Transport Canada's navigability assessment under the Canadian Navigable Waters Act.	
C-16697	25/07/31	Ontario Ministry of Natural Resources (MNR)	Phone Call	GBR had a call with MNR to discuss an update on the Crown Land application sent for the pipeline road crossings. MNR requested shapefiles for Substation and distribution line PTR. MNR noted that they need to align with the consultation lead and will get back to GBR. GBR requested a meeting invite be sent to ensure it is discussed. GBR noted that the consultation should not be more than MNR given its a buried pipeline across a forestry road and there has been a lot of engagement on that pipeline route to date. GBR reminded MNR that the archaeology has already been conducted across the property and shared with First Nations. GBR noted that there are two letters of support for the pipeline route from WFN and LSFN.	
C-16698	25/07/31	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC provided a meeting invitation for the Key Issues briefing scheduled for August 14, 2025 to discuss water management and an overview of fish habitat compensation plans. GBR provided copies of the presentation materials that will be discussed.	IAAC_073125_01.pdf
C-16704	25/08/01	Great Bear Gold Project Projet Aurifère Great Bear	Virtual	IAAC and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. GBR provided updates on ongoing efforts to engage with Wabauskang and Lac Seul First Nations regarding the methylmercury study plan, and noted continued outreach to ANA regarding data inputs and replication of the study. IAAC confirmed that one member of the External Technical Review (ETR) panel has been secured, with contingency plans in place to ensure sufficient expertise. IAAC also noted that Environment and Climate Change Canada will be submitting technical review comments shortly. GBR confirmed that the first phase of the Impact Assessment (IA) submission—expected in September—will include the project description, alternatives, and preliminary sections, with technical support documents (TSDs) and modelling planned for submission in December. IAAC acknowledged and approved this phased approach. Great Bear indicated that revisions to the Detailed Project Description (DPD) will also be reflected in the submission, incorporating changes based on engagement feedback. The inclusion of benefits in the initial phase remains under consideration, though IAAC indicated that doing so would support continued dialogue.	IAAC_080125_01.pdf
C-16749	25/08/01	Ontario Ministry of Natural Resources (MNR)	Email	GBR distributing the Crown Land Plan to the MNR for the application for small crossings of Crown roads required for buried pipeline infrastructure associated with the Great Bear Resources AEX Project which include the buried natural gas pipeline at Tuzyks Road, as well as a buried effluent pipeline crossing under Dixie South Road to the Chukuni River, with installation planned for August 10th. GBR told the MNR to reach out if any further information is required to ensure the necessary land tenure approvals are met and that schedules can proceed. MNR confirmed they did not have any concerns regarding the August 10th installation date. GBR confirmed that the they had received the confirmation and thanked MNR for their confirmation.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-16770	25/08/07	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to note that they received the MECP's comments on the methylmercury study plan. IAAC noted that they wanted GBR to have a raw copy of the comments before they completed their analysis on the comments. GBR thanked IAAC for providing the information and noted that they are available for discussion.	
C-16767	25/08/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the MECP in response to the July 2025 Information Request to provide the Updated Groundwater Monitoring and Supplementation Trigger Plan, Updated Surface Water Monitoring Plan, Supplemental Sediment Quality Monitoring, Sulphate Management Plan, and Effluent Mixing Zone Validation Plan.	Engagement not related to Project
C-16768	25/08/08	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to ask when they can expect the follow up information from ECCC and if they anticipate any follow up from other stakeholders.	
C-16779	25/08/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the MECP to offer their technical staff the opportunity to work with GBR's technical consultants to discuss the proposed approach to MeHg modelling for the Project. MECP emailed GBR to note that they are confirming internally on the best way to start this collaboration, noting that something will be scheduled sometime in August. GBR provided their availability to meet in August and asked the MECP to confirm the list of participants. MECP noted that they will need to shift the meeting to late August or early September, but noted they could accommodate the first week of August if needed. GBR noted that they would like written feedback from the MECP the week of July 28. GBR noted that they can then proceed with an initial session in August and schedule a second session in early September. MECP noted they will not likely be able to participate in a meaningful discussion the first week of August due to competing priorities and vacation schedules. MECP requested to defer the meeting to the end of August or early September. GBR noted that the MECP previously promised written comments and asked that these be provided prior to the end of September. MECP noted that they are working to compile technical input and the end of September should be feasible to distribute. MECP emailed GBR to schedule a focused session to discuss the June 2025 materials related to MeHg, ministry comments on the 2024 mercury study and August 2025 materials related to the water management strategy. GBR emailed the MECP to note that IAAC has previously provided the MECP's review of the 2024 Mercury Study Plan. GBR noted that they tentatively have a meeting scheduled for the end of August and asked the MECP to confirm. GBR asked for confirmation of the attendees. GBR	Engagement not related to Project
C-16892	25/08/12	Ontario Ministry of Natural Resources (MNR)	Email	MNR emailed GBR to request a copy of GBR's Crown Land Application and shapefile related to the monitoring wells.	
C-16896	25/08/12	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR provided an update to MECP that an updated Mine Rock Management Plan (MRMP) cannot be provided yet pending completion of the updated Geochemical Assessment Report for the AEX program in October. Updated geochemical assessments would be provided as committed to the Ministry of Mines as they become available, along with amendments to the MRMP. GBR noted they would be providing the updated drainage water quality report, and expects the MRMP can remain on the current schedule. GPR noted their approach to determining and storing rock on lined surface pads will not impact water quality predictions, and they would ensure both the updated MRMP and Geochemical Assessment Report are completed prior to storing rock on the surface. GPR provided a table of a timeline for supplying information.	Engagement not related to Project
C-18905	25/08/13	Fisheries and Oceans Canada (DFO)	In Person	GBR and DFO participated in a site tour of the AEX Pad, Dixie Creek, the LP Pit Area, Teardrop Lake and the RoW. DFO commented on the effort made for GBR on Indigenous early engagement. DFO observed during the tour that no corners are being cut to protect waterways. Additional erosion and sediment control measures were discussed.	Engagement not related to Project
C-17039	25/08/14	Canada Ministry of Natural Resources (NRCAN) Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear Health Canada Impact Assessment Agency of Canada (IAAC) Indigenous Services Canada Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	The meeting was convened to discuss the current strategy for overall water management and fish habitat and compensation plans. The presentation highlighted the updates made to the water management plan as well as current baseline studies, modelling results, and proposed compensation and offset strategies regarding fish and fish habitat. IAAC, DFO and ECCC posed a series of clarifying questions regarding the presentation as well as advice to ensure continued progression for required approvals / amendments. The meeting concluded with only one action item for Great Bear Resources / WSP, to issue updated slide materials to IAAC that includes the most up-to-date site plan based on current modelling.	IAAC_081425_01.pdf
C-16887	25/08/15	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC in follow up to their August 14, 2025 meeting, to provide an updated Fish and Fish Habitat presentation, a figure outlining anticipated fisheries impacts (Schedule 2 and Paragraph 35), and tabular summary of fish species occurrence by waterbody.	IAAC_081525_03.pdf
C-16888	25/08/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide a letter in response to ANA comments on the PTTW and ECA permit application. GBR provided supporting materials addressing the topics raised in the letter. In the response letter, GBR noted that they are following provincial guidance in regards to consultation with ANA and noted their past engagement with ANA. GBR noted that MECP is approving incidental permits related to the AEX work, not reviewing the AEX project. GBR noted that the MECP permit review needs structure and a defined conclusion and not open ended. GBR noted that the duty to consult has been met.	Engagement not related to Project
C-16893	25/08/15	Ontario Ministry of Natural Resources (MNR)	Email	GBR provided the application for Crown Land monitoring well installation as per the draft ECA - ISW as requested by the MNR. A map with coordinates was supplied in place of a shapefile.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-16894	25/08/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	MNR thanked GBR for providing the requested application for Crown Land for monitoring wells, and noted occupational authority would be required since the infrastructure is on Crown Land. MNR confirmed that this can be included with the LUP application, and they will attempt to join them on the permit.	
C-16895	25/08/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Natural Resources (MNR)	Email	GBR provided the application including the monitoring wells and drive points within the Dixie Creek buffer as requested by MNR. A description and photo of a drive point was also included, noting that a drive point is a 1 inch diameter steel pipe driven into the water to measure groundwater recharge by comparing the water levels inside and outside of the pipe.	
C-16897	25/08/15	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR provided MECP with the updated water quality model.	Engagement not related to Project
C-16928	25/08/18	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC provided NRCan's comments on the GBR Mercury Study Plan and methylmercury predictive modelling materials.	
C-17001	25/08/18	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	A meeting was held between GBR, WSP, and the Ministry of the Environment, Conservation and Parks (MECP) to provide regular updates on activities related to the Great Bear AEX Project. Items on the agenda include discussion of reports and plans for the ECA ISW (Ref No. 9390-D49KGX) and status updates for the PTTW application (Ref No. 7244-DH6HJF). Discussion based on timeline and plans for progress moving forward. Great Bear reiterated that technical experts are available to expedite technical reviews and that all available documents have been provided as requested.	Engagement not related to Project
C-16925	25/08/19	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR replied to MECP regarding meeting the week of August 25. GBR also requested feedback from MECP on participant alignment, noting previous discussions with IAAC to have direct follow-up with interested parties.	Engagement not related to Project
C-16929	25/08/19	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC provided guidance to GBR on items to include in the kick-off meeting and presentation. These included a project overview, Indigenous consultation overview and anticipated project schedule.	
C-17003	25/08/20	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided IAAC with the deck for the permitting coordination kick-off meeting, and requested potential meeting scheduling with the Federal regulators.	IAAC_082025_01.pdf
C-17005	25/08/21	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC thanked GBR for a copy of the deck to review and confirmed the meeting time would be Friday September 19 at 10:00am-12:00pm	
C-17448	25/08/21	Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC) Transport Canada	Email	IAAC emailed a meeting invite and agenda to GBR, DFO, ECCC and IAAC personnel for September 19 to discuss the project and permits required. Topics included the permitting coordination process, project schedule and issues and challenges.	
C-17823	25/08/21	Red Lake Municipality	Email	The municipality of Red Lake emailed GBR inviting GBR to donate a prize for the Red Lake 100 Years of Mining in Red Lake at the CenCan VIP Social.	
C-16963	25/08/25	Great Bear Employees Ontario Ministry of Natural Resources (MNR)	Email	MNR replied to GBR's inquiry regarding withdrawing water that permit is unnecessary when withdrawing less than 50,000 litres per day.	
C-16965	25/08/25	Ontario Ministry of Energy & Mines (MOEM)	Email	Ontario MOE provided GBR with guidance regarding proper storage of drill cores.	
C-16966	25/08/25	Ontario Ministry of Energy & Mines (MOEM)	Email	The MOE, Mining Lands Section provided GBR with a written description of the process to obtain a lease of a mining claim that had previously been discussed by phone.	
C-18031	25/08/27	Chukuni Communities Development Corporation Red Lake Municipality	Email	GBR emailed the Municipality of Red Lake and the Chukuni Communities Development Corporation requesting a status update or draft on the Community Capacity study as they are finalizing the Impact Assessment process. The Municipality of Red Lake replied that the Community Capacity Study is being finalized, but they cannot release a draft without Council seeing it first. They anticipate it being posted to the website within the next month.	
C-17047	25/08/29	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC asked GBR if they were to be included in the technical discussions with LSFN and WFN, and offered to join to answer any process-related questions. GBR confirmed that the first session on September 3 would be a direct engagement and introduction, but they will keep IAAC informed of any future sessions.	
C-17102	25/08/29	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	GBR and IAAC had a meeting to discuss IAAC participation in methylmercury technical discussions with LSFN and WFN. IAAC are offering funding for participation in technical meetings. Condition for funding is that they would be Agency involvement. GBR requested IAAC support the Branfireun data requests made by GBR. IAAC also requested presentation from GBR on effects to Indigenous Peoples in Q1 of 2026.	IAAC_082925_01.pdf
C-17103	25/09/02	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP contacted GBR to reschedule the bi-weekly check-in. GBR requested an update on timing of the ECA and PTTW, as well as on feedback for information provided to MECP. MECP confirmed they would provide feedback soon.	Engagement not related to Project
C-17106	25/09/02	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP provided a technical guidance document to GBR for Water Resource Evaluations to Support Applications for Environmental Compliance Approvals in Ontario. GBR sent the Guide to the MEM, and noted that Section 4.3 requires a Waste Rock Management Plan. GBR requested confirmation that this plan exists in its current form with the filed Closure Plan, and inquired why the MECP is requesting this plan from Proponents.	
C-17140	25/09/02	Great Bear Gold Project Projet Aurifère Great Bear Ministry of Heritage, Sport, Tourism and Culture Industrues (MHSTCI) Ontario Ministry of Citizenship and Multiculturalism (MCM)	Email	IAAC reaching out to GBR and the MCM regarding a question received from the MCM surrounding the inclusion of cultural heritage impacts in the Indigenous Peoples Key Issues Briefing planned for Q1 of 2026. IAAC noted that given the MCM's mandate, they should inform GBR if they are looking to confirm whether cultural heritage will be a part of the discussion or if it would be best for GBR to arrange a separate meeting to provide advice on cultural heritage matters as needed.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17199	25/09/03	Great Bear Gold Project Projet Aurifère Great Bear Ministry of Heritage, Sport, Tourism and Culture Industrues (MHSTCI) Ontario Ministry of Citizenship and Multiculturalism (MCM)	Email	IAAC emailed GBR to note that they had a question from the MCM about whether cultural heritage impacts will be addressed in the Indigenous Peoples Key Issues Briefing (KIB) planned for Q1 2026. IAAC noted that if this wont be addressed during this meeting MCM is open to arranging a separate meeting to discuss. GBR noted that they will be discussing cultural heritage during the KIB but suggested that they would like to schedule a call prior with MCM to discuss.	
C-17414	25/09/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	The MECP responding to GBR with a technical review of the PTTW application. The MECP's hydrogeological, surface water and hydrology reviews noted that they also included comments received from ANA in their review. The MECP noted comments on the supplementation rates, pumping test work, groundwater monitoring and supplementation trigger plan, and updated hydrometric monitoring plan.	Engagement not related to Project
C-17200	25/09/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to asked for a comprehensive consultation record for the ECA applications. MECP noted that they are looking for consultation records ANA, WFN , and LSFN. MECP provided a previous version of the record of consultation for ANA from December 2021 to July 2024. MECP requested any additional consultation records and the PTTW application shapefiles.	Engagement not related to Project
C-17467	25/09/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	A meeting was held between Great Bear Resources, WSP, and the MECP to provide regular updates on activities related to the Great Bear AEX Project. The review progress and next steps related to Environmental Compliance Approval (ECA) and Permit to Take Water (PTTW) applications, including stakeholder feedback and document sharing timelines. MECP notes they have submitted its review, with WSP and a smaller group to complete the initial assessment. Over 3,000 comments were received on the ECA and PTTW, including submissions from ANA; MECP will share these with GBR and release reports in two batches. GBR has not yet received ANA's comments. GBR stressed the importance of receiving MECP's comments before meetings and confirmed the early exploration PTTW is still required. MECP will provide surface water comments by the end of next week, with groundwater comments to follow, and a follow-up call is scheduled.	Engagement not related to Project
C-18033	25/09/04	Red Lake Municipality	Email	GBR replied to the municipality of Red Lake saying that GBR will donate a prize for the Red Lake 100 Years of Mining in Red Lake at the CenCan VIP Social. Red Lake replied thanking them for their support, and for the prize that GBR had dropped off.	
	25/09/04			A Key Issues Briefing meeting was held between Great Bear Resources and federal and provincial regulators on September 4th, 2025 to discuss Migratory Birds. Topics presented in the slide deck included, baseline conditions, potential effects, mitigation measures, effects assessment, significance and cumulative effects.	IAAC_090425.pdf
C-17202	25/09/05	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to provide the August 19 and 27 emailed from CELA and Cavalluzzo on behalf of ANA regarding the PTTW and ECA applications.	Engagement not related to Project
C-17189	25/09/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to request an updated record of consultation for the ECA and PTTW application, specifically for ANA, WFN and LSFN. MECP said their most recent version only included ANA and was only until July 31, 2024. GBR also requested a record that shapefiles for the PTTW were provided to WFN. GBR responded with concerns on MAG's DTC assessment without such information and pointed to previous correspondance with MECP for the requested information.	Engagement not related to Project
C-17205	25/09/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the MECP to provide the Wolverine Collaring Research Proposal to meet the conditions of their permit. MECP emailed GBR to ask if there is any outstanding information owed to them. MECP emailed GBR to thank them for providing the Wolverine Research Proposal and noted that their email confirms receipt of the submission.	Engagement not related to Project
C-17211	25/09/08	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR)	Email	GBR emailed the MECP to provide notice of species at risk observation. GBR noted that this is to meet Condition 26 of their permit under the Endangered Species Act. GBR noted that they observed a bank swallow nests on August 13, 2025. GBR noted that approximately 12 birds and 58 nests were observed. GBR noted that they created a 50 m buffer and staked around the nest colony. GBR stated that they completed the NHIC Observation Reporting Form. MECP thanked GBR for notifying them of the observation.	Engagement not related to Project
C-17244	25/09/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP requested to delay the meeting with GBR and IAAC until all three June 2025 methylmercury modelling materials have been reviewed and comments provided to GBR and IAAC. MECP noted they are aiming for the end of September. GBR replied that they would like to meet prior to the reviewers progressing to share additional information, and also to schedule a meeting following MECPs technical submission.	
C-17190	25/09/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR requested MECP provide all outstanding technical comments related to the ECA and PTTW, noting that it is seven months past the standard approval timeline. GBR requested if MECP could explain how it determines the duty to consult requirements so that they can comply.	Engagement not related to Project
C-17191	25/09/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirmed they received the request for the ECA and PTTW technical comments and will respond.	Engagement not related to Project
C-17192	25/09/09	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC requested responses from GBR regarding some questions that may impact if a Schedule 2 Amendment is required under the MDMER, including: -Will mine wastes be deposited into fish bearing waters? -Is a tailings management facility required and will this deposit into fish bearing waters? -Will water and fish be removed from the area? -Does the impacted waterbody have fish or connect to another fish bearing water? IAAC requested these responses prior to the subsequent week's kick-off meeting.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17195	25/09/09	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC replied to GBR's inquiry regarding an expected response time for ECCC comment on the MeHG predictive modelling would be the end of August. GBR noted that timely feedback from ECCC is critical, and that the delay from the beginning to end of August makes planning engagements very difficult. GBR asked if IAAC can request ECCC provide accurate timelines. IAAC contacted ECCC to request an update. GBR followed up in September requesting an update. IAAC responded with ECCC comments, and that ECCC is available for a meeting to discuss if requested by GBR.	
C-17245	25/09/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirmed they received the request to meet regarding the MeHg Modelling Technical Input and will respond as soon as possible.	Engagement not related to Project
C-17203	25/09/10	Ear Falls Municipality	Email	The Mayor of Ear Falls sending an email to GBR in order to arrange a chat to update Ear Falls on the 2025 plan and progress due to an escalation of inquiries from public.	
C-17204	25/09/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	The MECP noting that they have reviewed the information submitted by GBR and have prepared a table outlining the submission and acceptability status of six required plans/reports. The MECP notes further revisions may be necessary based on technical reviews, and preliminary insights have been shared to assist in updating the reports. Additional emails will provide action items and further details regarding the PTTW material. Attachments include technical review memos for specific plans and a summary table of comments. Further reviews of other plans will follow.	Engagement not related to Project
C-17224	25/09/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP provided their technical review of the PTTW application. MECP requested the following information revisions to supplementation rates in Table A, submit a pumping test work plan and supporting information, updated groundwater monitoring and supplementation trigger plan, updated groundwater model simulations, and updated hydrometric monitoring plan.	Engagement not related to Project
C-17468	25/09/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR meeting with the MECP to discuss the proposed hydrometric trigger for flow supplementation, MECP clarifying that it should be based on 20% of daily flow between reference and impacted stations, though concerns were raised about false positives and the need for a balance between daily and longer-term averages. A compromise toward a weekly moving average was suggested to reduce false positives while ensuring mining impacts are captured, with reporting limited to cases judged as real and others recorded in annual monitoring. Limited baseline data and the need for an on-site replicate station at the Chukuni were noted, with MECP to be notified upon installation. On flow supplementation, the group agreed the plan must include upper limits, as providing water up to a spring freshet is not feasible. Pumping tests will be conducted to determine water availability, with MECP raising concerns about potential supply limitations. Flexibility was requested to drill multiple wells within 500 m of proposed sites to secure adequate flow without triggering new permitting or consultation requirements.	Engagement not related to Project
C-18906	25/09/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and MECP had a meeting to discuss the MECP findings from an August 21 site visit that the sediment pond was lined.	Engagement not related to Project
C-17273	25/09/11	Ministry of Heritage, Sport, Tourism and Culture Industrues (MHSTCI) Ontario Ministry of Citizenship and Multiculturalism (MCM)	Email	GBR sent a follow up note to IAAC requesting the appropriate contact at MCM for the Indigenous Peoples Key Issues Briefing (KIB) planned for Q1 2026.	
C-17270	25/09/12	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR responded to IAAC's request for clarification on a set of questions from ECCC and MPD regarding Fish and Fish Habitat. GBR noted these responses were included in the August 14th presentation, and asked if IAAC would like the presentation re-shared.	
C-17274	25/09/12	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC sent GBR a statement regarding GBR holding technical meetings about potential impacts and mitigation measures they intend to share with WFN, LSFN, ANA, and MNO and asked GBR to confirm if the statement is accurate and which communities GBR is sharing Key Issue Briefing (KIB) information with. GBR confirmed the statement is accurate for LSFN, WFN, and ANA, including an email previously sent to ANA, and are still working with NWOMC to facility technical reviews.	
C-17275	25/09/12	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	Transport Canada asked GBR if any Indigenous Communities had been engaged on the past, present and future use of unnamed Waterbody 4. GBR confirmed local Indigenous Communities have been engaged about this waterbody and others in the area. Shapefiles were provided to LSFN, WFN and NWOMC. GBR confirmed there was no past, present or future use, and no concerns raised about Unnamed Waterbody 4. GBR asked about next steps and Transport Canada's determination timelines.	
C-17466	25/09/12	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	IAAC noted that GBR's permitting timelines are ambitious, emphasizing that typical long-lead permits (e.g., Fisheries Act, MMER) require about two years, and stressing the importance of strong FN relationships, comprehensive applications, and construction buffers post-IA decision. GBR will provide updated permitting and approvals timelines before Friday's meeting. WSP requested clarity from TC on navigation waters; IAAC will coordinate, with GBR to follow up directly. On engagement, GBR confirmed all key issue briefings have been shared, though ANA has not engaged; GBR will issue a direct meeting request. Methylmercury discussions are ongoing, with GBR reviewing comments and preparing responses, aiming for December deliverables; IAAC prefers a coordinated federal meeting with MECP also present. GBR will also follow up with Western University on the Riverbank Study, finalize phased IS submissions the week of September 26, and respond in writing on concerns with the Expert Review Panel,.	IAAC_091225_01.pdf

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-17470	25/09/15	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and the MECP discussion which focused on the Mine Rock and Overburden Management and Monitoring Plan, which will be integrated with the Metal Leaching and ARD Assessment Plan in a single report from GBR. GBR emphasized that ongoing site geochemical work shows limited changes expected over five years and argued against imposing unnecessary metal cut-off grades for non-PAG rock, noting arsenic as the only potential concern. MECP highlighted that past testing identified arsenic and other metals such as cobalt as risks, while GBR maintained these are only relevant in PAG material. WSP recommended coordinating experts via email to resolve differences, as additional cut-offs would complicate rock management. Action from the call was to coordinate the Geochemistry teams from WSP and MECP to get together in discussion on a call.	Engagement not related to Project
C-18367	25/09/19	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	Great Bear Gold Mine Permitting Coordination Kick-Off meeting with the IAAC/DFO/ECCC/TC. Each regulator and GBR sharing a presentation on their perspective and knowledge. GBR sharing an overall project summary presentation, specifying permits required to do project activities anticipated. IAAC presented on permitting coordination, emphasizing efficiency in the regulatory system and use of the Canadian Impact Assessment Registry to track permit status. GBR/WSP provided an overview of the project, including key features, brine/reject solution management, underground backfill, draft Schedule 2, fisheries mapping, and major approvals required (e.g., Closure Plan, multiple ECAs, PTTW, permits for aggregates, land use, and species at risk). DFO highlighted IA timing dependencies, enforcement obligations, and strategies to avoid delays, while ECCC provided best practices for Schedule 2 engagement and noted potential SAR/migratory bird considerations. TC confirmed reviews of navigability are ongoing, with decisions on certain watercourses expected by December, and guidance requested on minor vs. major works. Regulators appreciated early engagement, and GBR will provide a more detailed construction plan to support permitting timelines and facilitate smoother approvals.	IAAC_091925_01.pdf IAAC_091925_02.pdf IAAC_091925_03.pdf IAAC_091925_04.pdf IAAC_091925_05.pdf IAAC_091925_06.pdf
C-19307	25/09/22	Kenora District Services Board (KDSB) NorthWest EMS Ambulance Services Ontario Ministry of Natural Resources (MNR) OPP Red Lake Detachment Red Lake District High School Red Lake Fire Department West Red Lake Gold Workplace Safety North	Letter	GBR provided a letter invitation to Red Lake and Ear Falls District emergency services inviting them to a meet and greet at the AEX location on October 10th to discuss emergency services.	Engagement not related to Project
C-17415	25/09/23	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR emailed MEM following up on a previous request for a definition of what is covered by an approved Closure Plan for groundwater monitoring, metal leaching and acid rock drainage requirements.	
C-17424	25/09/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR sent a follow up email to MECP requesting comments on information previously provided to MECP.	Engagement not related to Project
C-17449	25/09/24	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR thanked IAAC for facilitating the September 19 permitting meeting and requested a timeline for when the presentations would be shared. GBR noted the draft Mine Waste Alternatives report and Fish Habitat Offsetting and Compensation Plan are ready for submittal, and requested DFO and ECCC submission contacts.	
C-19304	25/09/25	Red Lake Hospital Red Lake Municipal Council Red Lake Municipality	Email	The Municipality of Red Lake distributing the agenda for the upcoming Community Health Care Committee meeting scheduled to take place on September 29th. The meeting minutes from the April 16, 2025 Community Health Care Committee were also distributed.	
C-17472	25/09/26	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the draft Fish Habitat Offsetting and Compensation Plan (FHOCP) report for the DFO and IAAC's review and comment, with GBR requesting comments be provided by November 10, 2025. IAAC has responded to GBR and has confirmed they have successfully downloaded the document and saved it to their records. DFO also noted that the timeline is acceptable and they will reach out if there is any questions.	
C-17678	25/09/26	Great Bear Gold Project Projet Aurifère Great Bear Hutchinson Environmental Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR and requested the details of the latest approach to the MeHG modelling in writing. GBR replied that they are completing their internal review of the updated memo to submit to IAAC and MECP the following week. GBR confirmed they are also implementing a far-field monitoring program which will be used to model sulphate flux rates, mercury efflux rates and other coefficients and modelling assumptions. GBR reiterated their request for a meeting.	
C-17704	25/09/26	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided the draft Fish Habitat Offsetting and Compensation Plan and draft Mine Waste Alternatives report to ECCC and IAAC. ECCC responded thanking GBR for the reports and may request additional information.	
C-18288	25/09/26	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the Fish Habitat Offsetting and Compensation Plan (FHOCP) for the DFO's review and requests all formal comments back to GBR for November 10, 2025. GBR also asked for the DFO to confirm receipt and for the DFO to reach out if there are any issues accessing the files or if there are and questions for GBR. DFO responded and noted that they have successfully downloaded the file sent, and saved it to their records. DFO also confirmed that the specified timeline is acceptable and that DFO will reach out if there is any further questions.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19306	25/09/26	Kenora District Services Board (KDSB) NorthWest EMS Ambulance Services Ontario Ministry of Natural Resources (MNR) OPP Red Lake Detachment Red Lake District High School Red Lake Fire Department West Red Lake Gold Workplace Safety North	Email	GBR emailed the OPP, the Red Lake Fire Department, Workplace Safety North, the Kenora District Service Board and MNR to provide an invitation for a meeting on October 10 to discuss emergency services. GBR offered to provide additional sessions if required.	
C-20223	25/09/26	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	GBR Touch base with IAAC on path forward for permitting and approvals.	IAAC_092625_01.pdf
C-20203	25/09/29	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR and MECP held a virtual bi-weekly meeting on September 29, 2025, to discuss the Great Bear Gold Project, focusing on monitoring plans, response to community comments, and permit applications.	Engagement not related to Project
C-17243	25/09/30	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR contacted MEM regarding MEND guidelines and requested clarity on an MECP communication. MECP requested groundwater modelling related to the Closure and Post Closure of the AEX Project, and GBR asked MEM to confirm if this was addressed through the Closure Plan technical review and consultation. MEM replied that an email response is going through approvals. GBR noted confusion with why an ECA ISW would required closure-related conditions, as this should be covered by the Closure Plan approval process. Likewise with the Waste Rock Management Plan. GBR requested support from MEM with the MECP regarding the Closure Plan and the regulatory framework. GBR followed up with their request from the MECP and noted that it is GBR's understanding that the Closure Plan met the requirements of the Rehabilitation Code under the Build More Mines Act, and noted that additional modelling or review would be consistent with the Act. GBR also notes they have filed an updated Geochemical Summary Report with the originally filed Closure Report, identifying Arsenic as the only potential risk for leaching from NPAG, and further requests MEM's support in advising MECP that the classification requires no further technical review by MECP staff, as certified under the Build More Mines Act. GBR further followed up with MEM looking for a response. MEM responded noting the information provided to meet the Mining Act requirements may not be sufficient to ensure requirements regulated by MECP have been met, and that MEM will continue to follow-up with the status of the response to previous questions posed to MEM. GBR responded noting the MECP"s role in providing comments, but further notes that the data and modelling used	Engagement not related to Project
C-19308	25/09/30	Chukuni Communities Development Corporation Red Lake Municipality	Email	GBR emailed the Red Lake Municipality to confirm the report they received is the Community Capacity Study. The Municipality replied that the provided link was for the Business Gap Analysis, but provided a copy of the report and noted the Community Capacity Study report will be posted to the website once finalized.	
C-17429	25/10/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP confirmed the next biweekly meeting is scheduled for Sept 29 and asked if GBR has anything to discuss. GBR sent a link to documents for discussion, including the Geochemistry Summary Report and Mine Rock Management Plan. GBR noted they believe the provided information is comprehensive and demonstrates appropriate management. MECP thanked GBR for distributing the reports and noted what was provided and what was needed, as well as noting the follow-up items needed from GBR including confirming what reports will support what plan, and providing the raw data Certificate of Analysis. GBR responds to the requests, confirming which report is supporting which plan, and notes that the Certificates of Analysis are being issued by a third-party lab, and will be provided by the end of the week.	Engagement not related to Project
C-17881	25/10/01	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC reaching out to GBR noting that they have reached out to government reviewers to check availability for the week of October 13th for a follow-up discussion regarding the updated mercury modelling materials. IAAC seeks to confirm that this will be available. IAAC also noted that they wanted to follow up regarding NWOMC's comments on the mercury plan, understanding that it was provided to GBR directly. GBR responded and noted that they will be available for the week of the 13th. GBR also notes they will provide the Mercury Study Plan comments and responses.	
C-17882	25/10/01	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the comments provided from NWOMC and GBR's responses to IAAC in response to their earlier request to receive comments received and GBR's response regarding the 2024 Mercury Study Plan.	
C-17885	25/10/01	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the comments provided from LSFN and WFN and GBR's responses to IAAC in response to their earlier request to receive comments received and GBR's response regarding the 2024 Mercury Study Plan.	
C-18280	25/10/01	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the comments provided from ANA and GBR's responses to IAAC in response to their earlier request to receive comments received and GBR's response regarding the 2024 Mercury Study Plan. GBR provided the initial comment and responses received on the plan, as well as further letter responses from Doctors on behalf of AN issued January 27, 2025, and January 31, 2025. A January 31, 2025 letter from ANA was also provided in addition to a memo summarizing comments which was provided on May 2, 2025.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18334	25/10/01	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR distributing the required documents for the renewal of Permit to Take Water (PTTW) to support Early Exploration Activities on the Great Bear Claims. GBR also notes that as part of this renewal, GBR is requesting a minor amendment to the permit to request that an amendment is made in order to 'allow the use of water for grouting during drill hole abandonment in addition to existing permitted purposes. GBR asks for the MECP to reach out if there is any further questions or information needed. GBR followed up with the MECP in order to confirm that this has been received.	Engagement not related to Project
C-18336	25/10/03	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distributing the updated memo for the predictive water module of the MeHg modelling scope to IAAC. GBR requests that this is distributed to the relevant GRT members for review and discussion prior to the next meeting. GBR also notes they will discuss this as an overview of the fall far field monitoring program currently underway as well as previous submissions by ECCC and NRCan. GBR notes that this version will be updated to incorporate results from the fall aquatics program once that data is available. IAAC confirms that they have passed this along to the GRT.	
C-18347	25/10/03	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR reaching out IAAC in order to distribute the Proposed Approach to Cumulative Effects Methodology slide deck for IAAC review, which highlights possible overlap and identification of future activities which will occur and what is needed from GBR. GBR also invited IAAC to reach out to GBR if needed in order to ensure alignment with IAAC.	IAAC_100325_01.pdf
C-18376	25/10/06	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC requesting confirmation that phased submissions will be shared with communities and government agencies for comments. GBR also requested an outline of the process.	
C-18379	25/10/07	Fisheries and Oceans Canada (DFO)	Email	GBR emailed DFO inviting them to join a meeting with LSFN and WFN between October 22 and 24 to discuss the draft FHOCP. DFO replied that they would like to send one representative and requested transport from Red Lake. GBR replied that flying into Sioux Lookout would be the best option and transport will be provided. DFO requested a virtual option. GBR relied that the preference is in-person but a virtual option will be available, and provided an itinerary.	
C-18380	25/10/07	Asubpeeschoseewagong Netum Anishinabek Ontario Ministry of Natural Resources (MNR)	Email	GBR emailed ANA to address concerns in ANA's letter regarding GBR's application for a Land Use Permit under the Public Lands Act. GBR noted that the request for a permit to install monitoring wells and drive points along Dixie Creek was at the request of the MECP to monitor ground and surface water around the AEX site. The permit for these wells will enhance environmental monitoring, and will not result in taking or treating water or infrastructure development. GBR noted they have entered into a capacity funding agreement with ANA for engagement, and will follow all permit conditions and environmental protection measures.	Engagement not related to Project
C-18364	25/10/10	Ear Falls Fire Rescue Ontario Ministry of Natural Resources (MNR) Ontario Provincial Police OPP Red Lake Detachment Red Lake Fire Department	In Person	On October 10, GBR HS department hosted a site tour for emergency support staff from Red Lake and Ear Falls. Key questions included concerns about community impact from on-site camps, fire response capabilities, and the importance of OPP familiarity with the site layout for emergency incidents. Responses emphasized collaboration with local stakeholders, self-supporting fire response systems, and ongoing communication with the OPP. The towns expressed appreciation for the project's transparency and community engagement. A follow-up with the OPP regarding site details was also mentioned.	
C-18371	25/10/10	Asubpeeschoseewagong Netum Anishinabek Cavalluzzo Ontario Ministry of Energy & Mines (MOEM)	Email	ANA responds to a September 11, 2025 notice regarding Great Bear Resources' proposed early exploration activities. ANA formally objects to the activities—geophysical surveys, mechanized drilling, stripping, and line cutting—due to their contribution to cumulative industrial impacts already affecting the community, including mercury pollution and other environmental harms. The response calls for recognition of ANA's rights and the need for genuine, respectful engagement aligned with reconciliation. GBR addresses concerns regarding the Great Bear Test Pits and Geophysics Project, clarifying that the proposed activities are low-impact and short-duration, with minimal environmental effects. GBR has provided funding support for project review and engagement, sharing detailed information and remaining available for further discussions.	Engagement not related to Project
C-20224	25/10/10	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	A virtual meeting was held between Great Bear project team and the Impact Assessment Agency of Canada (IAAC) focused on permitting, approvals, and consultation processes. Key concerns included fish consumption rates and mercury impact recovery for ANA.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18427	25/10/14	Asubpeeschoseewagong Netum Anishinabek Cavalluzzo Ontario Ministry of Natural Resources (MNR)	Email	GBR email in response to the letter sent by ANA on September 23, 2025, which was addressed to the MNR and GBR. GBR responded to comments and clarified points regarding the AEX clearing application for the substation and distribution line. GBR responded to comments from ANA which stated that it is premature to approve additional tree clearing as the Project lacks permitting stating that the work in the AEX clearing application is part of an approved AEX program which has received an approved Closure Plan, and Endangered Species Act Permit. GBR further responded to a comment from ANA which noted concern that these activities will add to cumulative impacts which ANA has been subjected to, and this cannot be considered in isolation from other historical, current, and proposed Projects. GBR responded to this comment and noted that the request is limited to land-based clearing activities already authorized under the closure plan, noting that there is no water taking, water movement, or water treatment associated with this activity and disagree that this will contribute to cumulative downstream activities. GBR further responded to ANA comments which noted that issuing this approval would allow for infrastructure for the Project to be built for a Project which may not be approved. GBR responded to this comment and stated that the Closure Plan requires progressive reclamation and noting that any areas cleared will be stabilized and restored. GBR further responded to the comment made by ANA which notes that there is no rationale provided for the early issuance of this approval which would justify the potential adverse and cumulative impacts. GBR responded and noted that the rationale is that the clearing is necessary to prepare infrastructure for the AEX Program and is under the approved	Engagement not related to Project
C-19464	25/10/15	Ear Falls Municipality	Email	GBR responded to The Mayor of Ear Falls' request to meet, confirming they were available on October 17.	
C-18472	25/10/17	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR requesting more detailed permitting and construction timelines following the September 19 permitting kick-off meeting. IAAC noted the previously provided dates were not broken down per permit and the projected construction start date of less than two years away does not allow for approval of long lead time permits. IAAC requested a detailed timeline of construction intended to start in 2027 and approximate date for when applications would be submitted.	
C-19445	25/10/17	Ear Falls Municipality	In Person	GBR met with the Mayor of Ear Falls. Discussion topics included the shutdown of the Ear Falls Sawmill and the anticipated layoffs. The township of Ear Falls was very concerned about the closure impact, and is in discussion with various government officials. The Mayor expressed support for GBR, and will emphasize the importance of it's success. GBR thanked him for his support and provided an update on expected timelines. Questions included training opportunities and reduction in camp stays.	
C-18449	25/10/20	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR emailed MEM requesting assistance in organizing a meeting with the province to discuss permitting as per IAAC's request.	
C-18450	25/10/20	Ontario Ministry of Energy & Mines (MOEM)	Email	MEM requested clarification on the details of the meeting requested by IAAC and who would be attending. GBR noted the meeting purpose would be to discuss overlap between the provincial and federal review process, and how the federal government can rely on the provincial process to address potential permitting impacts.	
C-18468	25/10/20	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC forwarded an email chain conversation they had with Cavalluzzo regarding document sharing and meetings with ANA to GBR. IAAC noted they met with ANA on October 15, and ANA said GBR and IAAC had not shared all technical files. IAAC provided GBR notice that they would provide the documents to ANA. GBR responded to IAAC that they can provide historical memos on MeHg bioaccumulation, but the information is outdated, and a more recent model approach was shared with ANA on October 1. GBR also noted they had shared the KIB presentations with ANA on September 10, which included Fish Habitat, MeHg Modelling, Migratory Birds and Water Management. GBR confirmed they are open to inviting ANA and other Indigenous Nations to participate in the KIB meetings, and requested if IAAC could share any submissions that were also shared with ANA.	
C-18952	25/10/20	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	GBR, WSP and MECP had a meeting to discuss the Wolverine Collaring Research Proposal. The objective of the program was discussed, as well as program logistics and timelines. WSP shared the third-party reviewers, and next steps were confirmed.	Engagement not related to Project
C-18471	25/10/21	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR requesting additional humidity cell test data to support their groundwater review. GBR replied that the data presented in the ML-ARD Assessment Report is the most current information available, and that the request for additional data is in contravention of the Build More Mines Act.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19217	25/10/21	Ear Falls Municipality	Email	The Mayor of Ear Falls emailed GBR requesting a progress update, including activities over the next 12 months, housing, timeline for hydro lines and permitting. The Mayor requested a meeting to discuss. GBR replied thanking the Mayor for the October 17 meeting, and confirmed they will continue to communicate and assist the township of Ear Falls. GBR provided the briefing of the discussed items, and confirmed they will provide any updates leading up to the November 19th Townhall. The Mayor alerted GBR to expect questions regarding housing and local jobs at the Townhall, as the residents do not feel supported by the mining industry. GBR thanked the Mayor for the information regarding community discussions, and provided an internal note for replying to residents, noting the intended duration of the camp and the expectation of employing a local workforce during operations. GBR also noted the requirements of the Federal Permitting Process involving consultation requirements with Indigenous communities. GBR requested a list of accommodations available in Ear Falls for short or long-term stays that can be provided for out-of-town contractors. The Mayor confirmed this would be provided.	
C-19432	25/10/21	Ear Falls Municipality	Email	GBR emailed the Mayor of Ear Falls to request contact information for snow removal contractors.	
C-19434	25/10/21	Red Lake Municipality	Email	GBR emailed the Mayor of Red Lake with an invitation to meet to discuss project updates and any concerns from community members. A meeting time was arranged for November 7.	
C-18482	25/10/22	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC replied to GBR that they are compiling documents to send to ANA, and noted the July 17 documents referred to are likely the Water Predictive Modelling, Fish Bioaccumulation, and Risk/Exposure Models from the Key Issues Briefing on July 17. IAAC confirmed they have shared the MeHg Study Plan and related comments with ETR, and are currently preparing a second package. IAAC confirmed they requested that ANA submit any information they are sending to ETR to GBR first, and to cc IAAC's project inbox. IAAC also attached an outline and requested GBR provide process timelines and permitting information for IAAC to provide to Indigenous Communities	IAAC_102225_01.pdf
C-18484	25/10/23	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC suggesting topics for the October 23rd Methylmercury modelling meeting, including a summary of the modelling approach, and updated on the Fall 2025 field monitoring program and a review of ECCC, NRCan and MECP comments and responses.	
C-18527	25/10/23	Ontario Ministry of Energy & Mines (MOEM)	Email	MEM emailed GBR thanking them for meeting regarding One Project One Process (1P1P). MEM provided a PDF of the presentation and the Project Definition template, requesting a follow up conversation and a note that the template not be distributed beyond the required individuals. MEM followed up and provided a link to the external guidance and project definition template available on the website. GBR requested confirmation of the MEM email to use to initiate the preliminary meeting, and MEM confirmed it was accurate.	Engagement not related to Project
C-18529	25/10/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide the sewage holding tank details that were not included in the draft ECA-ISW. GBR noted the information was provided in the March 2025 response, and requested confirmation that it will be incorporated into the description of works and the conditions of the next draft ECA.	Engagement not related to Project
C-20208	25/10/23	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	The meeting walked through how comments on the groundwater and surface water documents were addressed, noting that MECP has not yet completed a full review. Updates to the groundwater monitoring plan were reviewed, with added parameters, mapping revisions, and initial questions from MECP on trigger criteria, data sources, drawdown thresholds, and clarity around baseline water levels and figures. MECP indicated preliminary concerns and requested additional clarification in the documentation, with formal comments to follow once their review is complete. Surface water, hydrometric, and mixing zone plans were summarized, with WSP confirming that all prior comments were addressed and only minor revisions made, while MECP will conduct a more thorough review under new file leads. The parties agreed to reconvene for a follow-up technical discussion once MECP provides a review timeline, with the goal of resolving remaining issues and advancing approvals.	Engagement not related to Project
C-20232	25/10/23	Canada Ministry of Natural Resources (NRCAN) Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear Hutchinson Environmental Impact Assessment Agency of Canada (IAAC) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	The meeting reviewed GBR's updated methylmercury modeling approach, which incorporates site-specific sulfate and mercury data from fall 2025 downstream sampling to improve long-term bioaccumulation predictions. Consultants outlined model refinements including new lake-specific inputs, and results from the fall 2025 water, sediment, porewater, and fish sampling program. WSP summarized supporting field programs and fish sampling, with regulators encouraging future archiving of fish tissues and potential summer sampling to reduce uncertainty. Next steps include refining the model, issuing a revised Mercury Study Plan, inviting written follow-up questions, and establishing technical working groups with regulators and Indigenous representatives in the new year.	IAAC_102325_01.pdf
C-18528	25/10/24	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR contacted MEM and requested a preliminary meeting to discuss the Project prior to submitting the designation request. GBR noted this meeting will allow MEM to provide guidance and help minimize delays. GBR proposed November 10, and MEM agreed to the proposed date.	
C-18530	25/10/24	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP a link to the updated Groundwater Model Memo, and confirmed they will send the ANA response shortly.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18531	25/10/24	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed MECP to provide GBR's responses to ANA letters and comments. GBR also noted it does not intend to continue responding to ANA comment letters, as ANA experts do not accept the data or agree with the responses and communications are becoming repetitive. GBR requested MECP make a decision on the permits based on the provided information.	
C-20424	25/10/24	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	A virtual meeting was held between Great Bear project team and the Impact Assessment Agency of Canada (IAAC) focused on permitting, approvals, and consultation processes. Key concerns included fish consumption rates and status of methylmercury responses	IAAC_102425_01.pdf
C-20205	25/10/27	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	The meeting between GBR and MECP focused on confirming timelines and next steps for environmental monitoring plans and regulatory submissions. MECP plans to share Batch 1 review (Surface Water, Hydrometric, and Effluent Mixing Zone plans) by the end of next week, followed by Batch 2 review containing the Groundwater Monitoring Plan, ML-ARD Report, and Supplementation Plan after internal review. The team agreed no further discussion is required on ANA correspondence, with MECP to close out the matter. GBR will follow-up regarding Early Exploration PTTW information, and MECP will confirm inclusion of the domestic sewage tanks in the AEX ECA. Both MECP and the project team emphasized avoiding further memo exchanges, focusing instead on alignment and timely completion of reviews.	Engagement not related to Project
C-18483	25/10/28	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC and confirmed that the July 17th material was from the June 26 memo. GBR confirmed they will forward the presentation to ANA. IAAC followed up and requested a status update of the updated outline letter. GBR provided the updated letter for the phased Impact Statement submissions for IAAC to send to the Indigenous Communities.	IAAC_102825_01.pdf
C-18523	25/10/28	Ontario Ministry of Natural Resources (MNR)	Email	MNR reaching out to GBR to discuss the approach to responding to letters received by ANA. GBR provided the Land Use Permit for Monitoring Wells and Drive Points and noting that they have provided further supporting files on their SharePoint for MNR's access. MNR followed up with GBR to ask for approval in order to note GBR's commitment to engaging with ANA in order to respect concerns raised and assess reasonable mitigation, which GBR approved. MNR further followed up with GBR regarding when work will be starting for the substation, which GBR noted will be looking to start for November. MNR further asked if the shapefiles for the clearing were shared with WFN and LSFN. GBR noted that this was discussed at the EMC with LSFN and WFN, but that shapefiles were not requested. GBR further asked if the MNR has responded to ANA and when can clearing work be expected to start. MNR notes that they hope to send out the letter on October 28th, and that the permit for clearing should be issued by early November. GBR responded and noted appreciation regarding the update and dates provided.	Engagement not related to Project
C-18939	25/10/28	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR emailed MEM as a follow up to the a prior meeting with MNR to confirm that the upcoming RC drilling programs will fall under the current Early Exploration Permit PR-000245. GBR confirmed the intended RC collar drilling arrangement, and that the pad will only be cleared and not stripped. GBR noted two planned RC Drilling Programs, the LP Central RC Program and the Viggo RC Program, and that they are planning a temporary core laydown area on the lease. GBR requested confirmation that their current plan aligns with the Ministry's expectations and that it falls under the scope of Permit PR-000245.	
C-18544	25/10/30	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	BR provided the latest humidity cell data to MECP as per their request. MECP confirmed they received the document, and initially asked if the scheduled afternoon technical call with WSP should be cancelled, but decided to hold the call to discuss the information.	Engagement not related to Project
C-20207	25/10/30	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	A virtual meeting held on October 30, 2025, between GBR and the Ministry of Environment, Conservation and Parks (MECP) regarding the Great Bear Gold Project. The discussion focused on the Mine Rock Acid Rock Drainage (ML ARD) assessment and the groundwater monitoring plan, covering testing methods, data inclusion, rock characterization, and monitoring activities.	Engagement not related to Project
C-18591	25/10/31	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR regarding a request from NRCan to schedule another KIB to discuss Hg, MeHg and SO4. NRCan had four main concerns: Source Term Characterization - what are all rock types being mined that could contribute to MeHg in water, and what is the testing program Uncertainty with Hg and MeHg guidelines - baselines and more conservative guidelines that the CCME guidelines may be required. Baselines can be used to set site-specific water quality objectives Modelling Tools for MeHg in water, sediment and fish - the model should include best available treatment technology (BA-TEA), and more parameters should be included in the model Mitigation Measures - how will high-Hg materials be managed and what are monitoring triggers IAAC requested a meeting on a Thursday in November to discuss feedback and responses to incorporate into batch 2 of the Impact Statement.	
C-18592	25/10/31	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR replied to IAAC acknowledging receipt of NRCan's concerns. GBR confirmed they would prepare a response, and noted they would be available to discuss as well as the meeting with the GRT once model results are available.	
C-18593	25/11/03	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear	Email	ECCC emailed a template for GBR to complete with calculations for the multiple accounts analysis as part of the Mine Waste Alternatives Report.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18594	25/11/03	Environment & Climate Change Canada (ECCC)	Email	GBR replied to ECCC's request to complete the multiple accounts analysis template, noting they will respond with the requested file shortly.	
C-18595	25/11/03	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear WSP	Email	WSP emailed DFO requesting confirmation of submission timelines and that an FAA is required rather than an RFR. WSP requested a call to discuss the timing of the FAA application and provided some options November dates.	
C-18672	25/11/04	Environment & Climate Change Canada (ECCC) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided ECCC with the requested completed multiple accounts analysis tables.	
C-18673	25/11/04	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	WSP sent a follow up email to DFO requesting confirmation of submission timelines and that an FAA is required rather than an RFR. WSP requested a call to discuss the timing of the FAA application.	
C-18674	25/11/04	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR asked MEM if presenting a slide deck would be beneficial. MEM replied that a slide deck of an overview of the mine production will be very beneficial, and will assist in determining necessary information to include in the project definition. GBR noted they are please that Frontier Lithium has been accepted into the One Project One Process (1P1P) framework and requested if there is a registry where GBR can access their project description.	
C-18675	25/11/04	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR followed up on an email to IAAC requesting an update on scheduling the cumulative effects methodology discussion, noting the approaching critical timeline to advance the Impact Statement work.	
C-18676	25/11/04	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	DFO confirmed that an RfR is not required as the Impact Assessment process information indicates an FAA is required. DFO requested an extension on reviewing the draft Fish Habitat Offset and Compensation Plan until November 19 to allow for review by DFO Science and compilation of the comments. DFO provided some potential meeting dates.	
C-18677	25/11/04	Ontario Ministry of Energy & Mines (MOEM)	Email	MEM replied to GBR's registry inquiry noting there is no registry to access other companies project definitions, and they will not share another proponent's documents without their permission. MEM confirmed the project definition template is used to justify designation and inform subsequent documents. MEM offered to set up a call to assist GBR in understanding the statements in the project definition template.	
C-18726	25/11/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Phone Call	GBR phoned the MECP Compliance Officer to inquire about the temporary use of liner material on the upstream slope of the berm within the mine water pond and to request information regarding three groundwater wells installed by MECP within the Multicrete pit to the West of our project. MWP Berm: GBR informed MECP that they were attempting to move water in the MWP from the West to East side to conduct excavation but due to berm material, we weren't making any headway. GBR requested to temporarily re-use a section of liner to place on the upstream slope to aid in pumping efforts, and MECP confirmed there were no concerns. Multicrete Wells: GBR requested any previously collected data or access to collect data to support future infrastructure from three wells in the Multicrete pit located west of the project. MECP requested an email with the well tag numbers, which GBR provided.	Engagement not related to Project
C-18953	25/11/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR to confirm that the permit to capture and possess wolverine and bats can be amended without additional consultation, and MECP requires consent for GBR to make the correction. GBR replied that they consent to the amendment.	Engagement not related to Project
C-18954	25/11/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP followed up on an email to GBR requesting consent to amend the permit to capture wolverine and bats. GBR confirmed internally.	Engagement not related to Project
C-18956	25/11/04	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR requesting confirmation of the previously provided domestic sewage holding tank details. MECP asked if any of the previous technical specification have changed, the replacement strategy after two years, and requested a copy of the contact agreement with the hauler.	Engagement not related to Project
C-18714	25/11/05	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR replied to MEM that their focus for the project definition is on completeness and level of detail. GBR confirmed they will discuss at the upcoming meeting.	
C-18938	25/11/05	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	GBR and MEM discussed via phone call the status of the Early Exploration Permit and questions regarding the RC/core drilling program. MEM confirmed the review of the Early Exploration Permit is progressing and should be received shortly. GBR explained why the drilling program is within the scope of Early Exploration, and MEM confirmed the rational is consistent with the Ministry's interpretation. GBR also discussed the Temporary Core Laydown Area and MEM provided guidance on the regulations regarding siting clearing. GBR confirmed they will proceed with internal planning as per the guidance received.	
C-18740	25/11/06	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided IAAC with preliminary information regarding their construction and execution schedule, noting it is subject to change. They anticipate the Fisheries Act Authorization to be required by July 2027 and will share draft materials when available. For the CNWA, a major or minor works application requirement is pending Transport Canada's determination on navigability. GBR has provided DFO and ECCC with draft documents supporting the FAA and MDMER for early review.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18775	25/11/06	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	WSP emailed MECP to provide answers to questions from the prior meeting. WSP provided corrected ground elevations for four locations where surface elevation data was updated, but noted the baseline water levels and trigger thresholds were correct. WSP responded to the question about monitoring activities that are not part of the existing AEX monitoring plan by confirming hydrogeology and geotechnical studies are progressing and investigation work is ongoing across the site. When new monitoring wells are installed, they are added to the list of wells supporting the baseline work for the EA, and water levels are collected on almost all of them monthly. WSP noted the AEX dewatering will provide useful information relevant to the EA.	Engagement not related to Project
C-20227	25/11/07	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	The meeting between GBR and IAAC focused on resolving concerns that ANA may not have received all shared materials, with IAAC requesting document lists from both parties to cross-reference and confirm completeness, potentially via controlled SharePoint access. IAAC reaffirmed that all communications with the ETR must occur through the Secretariat, and that information will continue to be distributed simultaneously to all participants to ensure transparency. Regulators advised that ECCC has completed its cumulative effects review with only minor feedback pending, while NRCan, DFO, and ECCC continue to seek baseline data in Batch 2 submission to support a fulsome review. A Key Issue Briefing is tentatively proposed for November 20 to present the updated Mercury Study Plan, subject to GBR responding to NRCan's latest comments. Permitting discussions noted that regulator review of the Permitting Plan is ongoing, with further dialogue planned on forecasting Decision Statement requirements and streamlining federal–provincial monitoring obligations.	IAAC_110725_01.pdf
C-18812	25/11/10	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR distribution of Fish Habitat Offsetting and Compensation Plan for review and comment from DFO. GBR requested that comments be provided by November 10, 2025. DFO responded noting that the document was downloaded and if any questions arise during review, DFO will reach out to GBR. WSP is reaching out on behalf of GBR to DFO asking to confirm the timelines on regulatory submissions for the project, specifically regarding the FAA application (Authorizations concerning Fish and fish habitat protection regulation). The DFO is asking if they can push the deadline from November 10th to November 19th for review. DFO have offered some times and dates to meet. WSP responded and confirmed a date and time provided by DFO to meet.	
C-18818	25/11/10	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC reaching out to GBR to inquire for staff to grant access to the SharePoint GBR use to share files with ANA.	
C-18829	25/11/10	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP reaching out to WSP (acting on behalf of GBR) to note requests regarding revision of plans associated with the ECA and PTTW applications. MECP noted comments regarding the Groundwater Monitoring and Supplementation Trigger Plan requesting further input on the sediment pond, analytical laboratory submissions and further information needed. The MECP also send comments regarding Mine Rock and Overburden Management and Monitoring Plan regarding further information needed on the storage liner, rocks sampled, and further information regarding overburden.	Engagement not related to Project
C-18930	25/11/10	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	WSP have sent an invite for the meeting to GBR, DFO and IAAC for November 20th to discuss FAA process and timeline, Submission requirements and Comments on the draft FHOCP	
C-18936	25/11/11	Ontario Ministry of Energy & Mines (MOEM)	Phone Call	GBR and MEM had a phone call to discuss collar limits in the Early Exploration Permit. MEM confirmed there was no maximum collar limit in the permit, and that RC drilling is included as an approved drilling type. Provided collars remain within 200 m of the collar location, the RC program is consistent with he Early Exploration Permit. MEM also noted mapping will be required for all applications to show the 200 m buffer around the collar.	
C-18928	25/11/12	Great Bear Gold Project Projet Aurifère Great Bear	Email	WSP replied to an email from IAAC asking for WSP to provide access to the SharePoint files that were shared with ANA, and requested confirmation they could access. IAAC confirmed they could access the files.	
C-18929	25/11/12	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to inform them that the files which they shared with ETR and tried to share with GBR, have been rejected due to unknown cause. They attempted to send it in smaller file sizes and aske GBR to confirm if they could access. GBR confirmed that they were able to download zip folder, but could not open all the files. GBR asked IAAC to confirm the timeline of when they will share the next package with ETR.	
C-18935	25/11/12	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR emailed MEM to thank them for clarification regarding the RC drilling program and to provide clarification on the collar numbers. GBR noted their application does not specify a maximum number of collars, and the ones provided were intended as a reference point for the radius allowance. GBR requested confirmation that additional collars may be drilled and that no maximum number of collars was established for Permit 000245. Following a phone call with MEM, GBR provided a summary email of the call to MEM. MEM confirmed there was no maximum collar limit in the permit, and that RC drilling is included as an approved drilling type. Provided collars remain within 200 m of the collar location, the RC program is consistent with he Early Exploration Permit. MEM also noted mapping will be required for all applications to show the 200 m buffer around the collar	
C-18999	25/11/12	Ear Falls Municipality	Email	The Township of Ear Falls emailed GBR their donation request for Winterfest 2026. GBR replied that they have approved their donation request.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18951	25/11/13	Ontario Ministry of Environment, Conservation and Parks (MECP) Ontario Ministry of Natural Resources (MNR) Wabauskang First Nation	Email	WSP emailed MNR to inform them of the Wolverine Collaring Program GBR will be conducting under Permit NR-C-001-24. WSP provided the files supporting the application, and detailed their current trapping plan, requesting MNR to advise if there are any requirements under the Public Lands Act for placement and design of these traps. MNR replied that they will begin their review, and requested a map of the trap locations. MNR confirmed Public Lands Act approval for the traps is not required. MNR emailed some follow-up questions after their review of the proposal, requesting additional details on the duration of the traps, placement of cameras, additional capture methods and helicopter proximity to dens. MNR additional requested a list of who has been notified of the program. GBR replied back regarding MNR's questions and provided a draft of proposed trapping locations. GBR noted they have held multiple meetings with the EMC, WFN and LSFN, who have participated in the review process of the proposal. GBR also provided responses to MNR's original questions, noting the intent to observe den reuse over multiple years, confirming den location by foot then by following the VHF signal, the low potential for using net gunning/darting for capture, and the 2 km setback for flying near dens. MNR replied that following conversations with the Northern Species at Risk Biologist from MECP, they cannot complete their review of the proposal, or provide which communities should be notified until the locations are confirmed. MNR also requested that the responses previously provided by GBR be included in the updated Research Proposal. MNR requested and alignment meeting with GBR and WSP on November 14th.	
C-18957	25/11/13	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to request the MeHg meeting be delayed due to a key member being unavailable. IAAC replied that the meeting can be held the following week.	
C-19116	25/11/13	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	MECP provided the meeting notes from the November 13 biweekly meeting. Topics covered included: MECP's review of the Groundwater Monitoring and Supplementation Trigger Plan, the MLARD Assessment Report, the Mine Rock and Overburden Monitoring Plan, the Effluent Mixing Zone and Validation Plan, the Hydrometric Monitoring Plan and the Surface Water Monitoring Plan. MECP also provided a status update on additional upcoming reviews. The status of the PTTW application MECP's pending response to ANA There was one action item for GBR to provide a response regarding domestic sewage.	Engagement not related to Project
C-19188	25/11/13	Ear Falls Municipality Ontario Ministry of Energy & Mines (MOEM)	Email	MEM issued a notice to GBR that they are consulting on a proposal for the Red Lake Transmission Project, noting the project would facilitate development of transmission infrastructure to support demand growth in Red Lake. MEM provided a link to the proposal and requested comments by December 13. GBR sent the notice to the Mayor of Ear Falls, encouraging a response to the request for comment and an acknowledgment of support. The Mayor replied that comments were submitted.	
C-19189	25/11/13	Ontario Ministry of Energy & Mines (MOEM) Thunder Bay Community Economic Development Commission	Email	MEM issued a notice to GBR that they are consulting on a proposal for the Red Lake Transmission Project, noting the project would facilitate development of transmission infrastructure to support demand growth in Red Lake. MEM provided a link to the proposal and requested comments by December 13. GBR sent the notice to the Thunder Bay Community Economic Development Commission (CEDC) encouraging a response to the request for comment and an acknowledgment of support. The CEDC replied they would provide a letter of support.	
C-19190	25/11/13	Ontario Ministry of Energy & Mines (MOEM) West Red Lake Gold	Email	MEM issued a notice to GBR that they are consulting on a proposal for the Red Lake Transmission Project, noting the project would facilitate development of transmission infrastructure to support demand growth in Red Lake. MEM provided a link to the proposal and requested comments by December 13. GBR sent the notice to West Red Lake Gold, encouraging a response to the request for comment and an acknowledgment of support. West Red Lake Gold replied that they will respond with comments and acknowledge support.	
C-19372	25/11/13	Ear Falls Municipality	Email	GBR provided the Mayor of Ear Falls with a copy of the poster advertising the November 19 townhall.	
C-19377	25/11/13	Red Lake Municipality	Email	MEM issued a notice to GBR that they are consulting on a proposal for the Red Lake Transmission Project, noting the project would facilitate development of transmission infrastructure to support demand growth in Red Lake. MEM provided a link to the proposal and requested comments by December 13. GBR sent the notice to the Mayor and CAO of Red Lake Municipality, encouraging a response to the request for comment and an acknowledgment of support.	
C-20206	25/11/13	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	Brief meeting between GBR and MECP to provide MECP update on items outstanding, no real changes to the original plan since Oct 27th call. MECP noted staff illness pushed review timelines. Reviews of documents are expected to be back to GBR tomorrow. MECP received another communication from ANA and they will include GBR on the response.	Engagement not related to Project
C-18955	25/11/14	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC provided an updated information package to GBR that was shared with the ETR that had been revised to make the information accessible. IAAC noted the mercury study plan was not included due to file size but had been sent to the ERT. The files were sent to GBR in two parts.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-18979	25/11/17	Ontario Ministry of Natural Resources (MNR)	Email	MNR emailed GBR to provide permits for the Red Lake Management Unit. The permits included the Land Use Permit for the implementation of drive points and monitoring well, the Permit to Remove Forest Resources and the Approval to Commence Harvesting Operation. GBR replied with their proposed approach for handling the wood from the project, including first offering it to First Nations partners, then to the Sustainable Forest Licensee, then finally to burn any remaining wood. GBR confirmed the compliance measures they intend to follow and asked if there are any notifications or separate burning approvals required. GBR followed up by providing a copy of the signed permit, and asked if they can begin harvesting with 7 days notice, rather than the 21 days specified in the permit.	
C-18980	25/11/17	Ontario Ministry of Natural Resources (MNR)	Email	GBR emailed MNR requesting to validate the new Land Use Permit, and if they can proceed with installation or monitoring wells and drive points prior to the payment being processed.	
C-18981	25/11/17	Ontario Ministry of Natural Resources (MNR)	Phone Call	GBR had a call with the MNR District Manager. Items discussed included the upcoming site tour, MNR's approval of burning as a wood disposal option and Hydro One's outstanding PTR.	
C-19368	25/11/18	Chukuni Communities Development Corporation Red Lake Municipal Council Red Lake Municipality West Red Lake Gold	Email	GBR emailed the Chukuni Development Committee and the Red Lake Municipality a copy of the poster and a reminder for the upcoming open houses in Ear Falls and Red Lake.	RLM_111825_01.pdf
C-18937	25/11/19	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC reaching out to GBR in order to discuss inviting the ECCC to the meeting with DFO, GBR, and IAAC, noting that the FHOCP is tied to the MDMER process and that the timing of the approval is connected with the MDMER approval timelines. GBR thanked IAAC for noting this, and stated that the ECCC will receive the meeting invitation shortly, and asked if GBR should still expect for the DFO to provide feedback on the FHCOP. DFO confirms they will send their feedback shortly, and proceeded to provide the review and recommendations for the interim FHOCP. GBR responds noting that they will be providing the Aquatic Baseline Report to further support the review and are looking to meet further with the DFO to ensure that the next draft accurately represents DFO's input and interpretations.	
C-18987	25/11/19	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide copies of their response to Water Science and Technology Directorate (WSTD), Environment and Climate Change Canada (ECCC) Comments on GBR's response to IAAC comments on the Draft Mercury Study Plan, the response to Natural Resources Canada (NRCan) Comments on the Methylmercury Study Plan and Proposed Modelling, and their response to the July 18, 2025 MECP/NRTSS letter regarding the Surface Water Review of the Impact Statement Work Plan and Mercury Study Plan. GBR offered to meet to discuss and proposed some possible times.	GBR_111925_01 GBR_111925_02 IAAC_111925_01
C-18988	25/11/19	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to follow up on an email to IAAC requesting an update on scheduling the cumulative effects methodology discussion. GBR noted their understanding was there were no major concerns and IAAC would provide feedback. GBR requested an expected timeline to receive this feedback.	
C-20221	25/11/20	Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Virtual	A Virtual Meeting focused on DFO's FHOCP review (with WSP and GBR), the need for more baseline context, conservative offsetting across connected habitats (including full-length compensation), and clarity on model rationale and species selection; regulatory scheduling highlighted the dependency on Schedule 2 amendment and consultation timelines. Immediate action is to share baseline/hydrology documents and update the plan accordingly, followed by a targeted follow-up discussion to close key items.	DFO_111925_01.pdf
C-19014	25/11/21	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Email	IAAC emailed GBR requesting some additional baseline studies that were initially requested by the GRT. In response to this request, GBR provided the Hydrogeology Baseline Report, the Hydrology Baseline Report, the Water Quality Baseline Report the Aquatic Resources Baseline Report and the Socioeconomic Baseline Report. GBR noted that modelling reports will be included as part of Submission #2. IAAC acknowledged receipt of the reports.	
C-19020	25/11/21	Ontario Ministry of Natural Resources (MNR)	Email	GBR emailed MNR requesting if the scheduled meeting could be moved to the first week in December. MNR replied that they would reschedule. MNR also provided links to several Environmental Registry of Ontario websites with notices regarding changes to renewable energy, streamlining approvals, updates to the public land and resources management frameworks under the Public Lands Act, Lakes and Rivers Improvement Act and Fish and Wildlife Act, changes to forest-related rules and permitting processes, and proposed changes to the Renewable Energy on Crown Land Policy.	
C-20228	25/11/21	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	A virtual meeting was held on November 21, 2025, involving the Great Bear Gold Project team and the Impact Assessment Agency of Canada (IAAC). The discussion focused on coordination of upcoming submissions, technical clarifications, and engagement challenges with ANA related to environmental and health risk assessments.	IAAC_112125_06.pdf
C-19015	25/11/24	Environment and Climate Change Canada Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	DFO replied to GBR acknowledging receipt of the Aquatic Baseline Report. They noted they would review the document and would be happy to meet with GBR to discuss next steps.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19021	25/11/24	Ear falls Municipal Council Gyro Club of McKenzie Island Nature's Inn Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Northern Economic Development and Growth (MNEDG) Red Lake Marine Red Lake Municipality TLT Group Ltd	Email	GBR emailed the invitations to the Residual Effects Assessment Workshops to members of the communities of Ear Falls and Red Lake who had provided emails at the town halls.	
C-19022	25/11/24	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to confirm NRCan reviewed GBR's responses and have no concerns but will send a written follow-up. IAAC also noted that due to limited availability from GRT, the planned KIB meeting was cancelled.	
C-19363	25/11/24	Thunder Bay Community Economic Development Commission	Email	GBR replied to the Thunder Bay Community Economic Development Commission (CEDC) that they would be attending both Prosperity Northwest and PDAC, and would be pleased to connect to provide a project update.	
C-19023	25/11/25	Environment and Climate Change Canada Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear WSP	Email	WSP sent a request to GBR, DFO, ECCC and IAAC to meet on December 8 regarding determining waterbodies frequented by fish.	
C-19024	25/11/25	Environment & Climate Change Canada (ECCC)	Email	ECCC emailed GBR requesting a copy of the Aquatic Baseline Report, noting that ECCC requires this information to support the determination of which waterbodies should be listed on Schedule 2. GBR replied saying they will provide the link, and confirmed they have a meeting with DFO to discuss the not fish-frequent designation. GBR noted they will forward the invite to ECCC. GBR also asked about the current Mine Waste Alternatives document, and if should be included in the Impact Statement submission to IAAC. GBR requested confirmation if ECCC input should be anticipated only after DFO issues it's letter confirming fish-bearing waterbodies.	
C-19025	25/11/26	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC replied to GBR's request for follow-up feedback to the cumulative effects methodology, confirming that they have no substantial comments. They noted the only feedback would be for GBR to incorporate available Indigenous Community knowledge in all parts of the CE assessment.	
C-19142	25/11/26	Environment & Climate Change Canada (ECCC)	Email	GBR shared a link to the Baseline Documents with ECCC.	
C-19143	25/11/26	Canada Ministry of Natural Resources (NRCAN)	Email	GBR shared a link to the Baseline Documents with NRCan.	
C-19144	25/11/26	Canada Ministry of Natural Resources (NRCAN) Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO)	Email	DFO emailed GBR to request sharing access to the Baseline Documents with ECCC and NRCan. GBR responded that this was completed.	
C-19103	25/11/27	Ear Falls Municipality	In Person	Great Bear presented a high-level overview of the project, mine plan, timelines, and regulatory process, noting construction is expected to begin in 2027 with first gold in 2030. The proposed open pit and underground mine includes a 10,000 tpd mill, significant employment, and environmental controls for water, tailings, dust, and blasting. Questions focused on local jobs, rotational work, blasting effects, water quality, wildlife, harvesting, wild rice, invasive species, waste, dust, and fish relocation. Great Bear confirmed impacts will be monitored and mitigated, reports will be publicly available through IAAC, and engagement with local communities and First Nations will continue.	
C-19104	25/11/27	Red Lake Municipality	In Person	Great Bear provided an overview of the project, site layout, and Main Mine, outlining progress through the ALIA process with Lac Seul and Wabauskang First Nations and noting that the Impact Statement is being submitted in phases through Q1 2026. The project timeline anticipates construction starting in mid-2027, completion by 2029, and first gold pour in 2030, pending IAAC decisions and permitting. The proposed open pit and underground mine includes a 10,000 tpd processing rate, 300,000–500,000 oz annual gold production, a workforce of 700–1,100, and advanced water treatment and tailings management facilities. Questions addressed community impacts as the project comes online, vibration limits and management, environmental findings, procurement and long-lead equipment, First Nations support, wildlife and species at risk, traplines, archaeology, water sourcing, seepage management, access, underground mining rates, and transportation needs. Responses emphasized collaborative engagement with First Nations, localized and controlled vibration, typical regional environmental conditions, regulatory compliance, and ongoing monitoring and planning to mitigate environmental and community impacts.	
C-19108	25/11/28	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR responded to MECP's request for additional information, confirming that domestic holding tanks would not be used in exceedance of two years, there has been no change to the technical specifications of the holding tanks, and that treatment methods are being investigated.	Engagement not related to Project
C-19130	25/12/02	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP) Wabauskang First Nation	Email	MECP emailed the WFN Chief to provide updates on GBR's Advanced Exploration Program. MECP provided details in a letter and shared a link to the: Groundwater Monitoring and Supplementation Trigger Plan Metal Leaching and Acid Rock Drainage Assessment Report Metal Leaching and Acid Rock Drainage Monitoring Plan Mine Rock and Overburden Management and Monitoring Plan Effluent Mixing Zone and Validation Plan Hydrometric Monitoring Plan Surface Water Monitoring Plan MECP requested that any comments of feedback be provided by WFN within 60 days.	Engagement not related to Project

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19131	25/12/02	Lac Seul First Nations Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed the LSFN Chief to provide updates on GBR's Advanced Exploration Program. MECP provided details in a letter and shared a link to the: Groundwater Monitoring and Supplementation Trigger Plan Metal Leaching and Acid Rock Drainage Assessment Report Metal Leaching and Acid Rock Drainage Monitoring Plan Mine Rock and Overburden Management and Monitoring Plan Effluent Mixing Zone and Validation Plan Hydrometric Monitoring Plan Surface Water Monitoring Plan MECP requested that any comments of feedback be provided by LSFN within 60 days.	Engagement not related to Project
C-19132	25/12/02	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed the ANA Chief to provide updates on GBR's Advanced Exploration Program. MECP provided details in a letter and shared a link to the: Groundwater Monitoring and Supplementation Trigger Plan Metal Leaching and Acid Rock Drainage Assessment Report Metal Leaching and Acid Rock Drainage Monitoring Plan Mine Rock and Overburden Management and Monitoring Plan Effluent Mixing Zone and Validation Plan Hydrometric Monitoring Plan Surface Water Monitoring Plan MECP requested that any comments of feedback be provided by ANA within 60 days.	Engagement not related to Project
C-19133	25/12/02	Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP emailed GBR thanking them for providing the revised plans, confirmed that they have accepted all six reports/plans and will begin updating conditions in the draft ECA. MECP also confirmed they will be sending the reports to ANA, LSFN and WFN, and requesting any comments within 60 days. GBR requested copies of the letters sent to ANA, LSFN and WFN, which MECP provided. Plans sent included the: Groundwater Monitoring and Supplementation Trigger Plan Metal Leaching and Acid Rock Drainage Assessment Report Metal Leaching and Acid Rock Drainage Monitoring Plan Mine Rock and Overburden Management and Monitoring Plan Effluent Mixing Zone and Validation Plan Hydrometric Monitoring Plan Surface Water Monitoring Plan	
C-19134	25/12/02	Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	ECCC emailed GBR to provide comments on their review of GBR's Mine Waste Alternatives report. ECCC noted they will review the Fisheries Baseline Report and will notify GBR if the waterbodies selected for mine waste disposal are considered to be natural fish-bearing waterbodies. ECCC also provided a list of 23 comments regarding the Assessment of Alternatives for Mine Waste Disposal for GBR to review and provide a response.	ECCC_120225_01.pdf
C-19137	25/12/03	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	GBR reaching out to Transport Canada to follow up following the September 19, 2025 permitting coordination meeting. GBR notes that TC indicated that a navigability designation would be available in early December, and that GBR would appreciate confirmation of the timeline for TC's determination.	
C-19146	25/12/03	Keewatin Patricia District School Board Northwestern Health Unit Red Lake District High School Red Lake Municipality	Email	The Keewatin-Patricia District School Board emailed a request for a donation to their Winter Feast. GBR responded that they would donate, and have volunteers available to help with set up and serving food. GBR also attached the feedback form.	
C-19150	25/12/03	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR emailed the draft version of the Abatement Action Plan for water management to MECP and requested comments. GBR noted that pumping and sloping would occur within 1-2 weeks unless MECP had objections. MECP responded that they reviewed the plan and requested additional information regarding the Industrial Sewage Inspection Report. MECP also noted contingency capacity should be detailed for other areas on-site, and that use of the MTU should be considered a last resort after all storage areas have reached capacity. MECP confirmed that preparatory earth works can continue provided they follow ministry direction. GBR replied to MECP thanking them for their feedback and provided an updated Abatement Action Plan addressing MECP's comments. Information included expanded details on contingency storage, descriptions on water transfer, Mine Water Pond elevation escalation triggers and confirmation that MTUs are a final resort measure. GBR noted that the updated plan should reflect MECP's direction, and offered to meet to discuss further. MECP confirmed that they will review the updated plan and contact GBR should any additional clarification be required.	Engagement not related to Project
C-19570	25/12/05	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	Cavalluzzo emailed GBR, IAAC, MOEM and MECP to provide a memo prepared by the ANA Lands Protection team in response to GBR's fish consumption risk assessment feedback request. Cavalluzzo requested the memo be shared with the IAAC External Technical Review experts. Cavalluzzo followed up to provided an expert report on mercury exposure and human health.	
C-20229	25/12/05	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	A virtual meeting between GBR and IAAC. Key actions focused on Batch 2 timing, ETR feedback on the MeHg Study Plan, and ensuring ETR receives complete information packages that reflect proponent and federal perspectives, with IAAC reaffirming a science-driven approach and risk reduction.	IAAC_120525_01.pdf
C-19315	25/12/08	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC reaching out to GBR in order to ask if the timeline presented to IAAC during the meeting held on November 27th can be shared further with the ECCC and DFO to assist with discussions and help clarify timelines. GBR noted that they are still currently working to finalize this timeline, but that once this is finalized that this can be circulated.	
C-19319	25/12/08	Great Bear Gold Project Projet Aurifère Great Bear Transport Canada	Email	Transport Canada replied to GBR's status request of the navigability determination, confirming that the assessments are in final review and should be completed by the end of the week.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19320	25/12/09	Fisheries and Oceans Canada (DFO)	Email	DFO emailed WSP and GBR to provide their notes on their review of the not fish frequented waterbodies, noting that it is only a draft.	
C-19569	25/12/11	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR noting they will need to have a discussion with the departments to confirm they can accommodate the new timelines. IAAC requested a follow-up meeting after they send the first draft of the Detailed Permitting Plan to discuss any questions. GBR confirmed the timeline works, and requested a meeting invite for the first week in January.	
C-19573	25/12/12	Transport Canada	Email	GBR thanked Transport Canada for the update and confirmed they would monitor for follow-up communications. Transport Canada provided an update that the determination on the assessed waterbodies is that they are considered non-navigable. Transport Canada confirmed that formal confirmation would follow that CNWA does not apply.	
C-19574	25/12/15	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR to notify them they received Batch 2 of the Impact Statement, and requested confirmation if some of the uploaded documents were duplicates. GBR replied that the Phase 2 submission document is a compilation of all sections. GBR confirmed they reviewed the portal and there are no duplicates.	
C-20292	25/12/15	Red Lake Municipality	Email	GBR inquires about the status of the Community Safety and Well-Being Committee, noting the lack of meetings since January 2024 and asking if a 2025 progress report exists. GBR highlights the need for community mental health and addiction support, particularly in suicide prevention for youth, and seeks to understand current priorities or opportunities.	
C-19576	25/12/16	Fisheries and Oceans Canada (DFO)	Email	WSP emailed DFO noting that the non-fish frequented waterbodies in the FHOCP revision was addressed by changing the status to non fish occupied. Not fish occupied was defined as watercourses or waterbodies where no fish were captured or observed over multiple seasons, and channels were not defined. As a precautionary measure, these waterbodies were considered for authorization under the Fisheries Act to take into consideration natural variation and that they may one day contain fish.	
C-19577	25/12/16	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC replied to GBR confirming they received duplicate notifications, not files, and that they were only missing the Q1 - Terrestrial Archaeology Assessment. GBR replied that they are still working on the Terrestrial Archaeology documents with the provincial government, and they would be included in the third submission. The Navigable Waters information originally planned for submission 3 was also included in submission 2.	
C-20325	25/12/16	Red Lake Municipality	Email	A working group of the Joint Community Safety and Well-Being Advisory Committee is being formed to evaluate intervention options for substance abuse. The group has not yet met, and its members include representatives from various organizations such as the hospital, community counseling, and family health team. Additional organizations are expected to join, and the members may provide support for related initiatives.	
C-20324	25/12/17	Red Lake Municipality West Red Lake Gold Chukuni Communities Development Corp	Email	A modified version of the Winter Carnival is planned for 2026, with no on-ice activities but other off-ice activities being considered. Discussions about GBR supporting the Norseman Festival and forming a committee to explore collaboration with the municipality, are set for the new year. Participants express interest in discussing how to address challenges related to community events and volunteer involvement.	
C-19687	25/12/18	Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided ECCC with the updated Mine Waste Alternatives Report in response to ECCC's review comments, and also included the Draft Fish Habitat Offsetting and Compensation Plan (FHOCP), the updated ECCC raw data tables, the Comment and Response table and the Mine Waste Alternatives Report. GBR noted the FHOCP and Mine Waste Alternatives Report were included in the Impact Statement Submission #2 to IAAC, and that they will be sharing a draft permitting schedule with IAAC for discussion.	
C-19688	25/12/18	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to confirm they are updating the timeline presentation and will submit is in early 2026 ahead of the proposed meeting. GBR noted they will send draft federal permitting schedule for the FAA, Schedule 2 listing and level 1 execution schedule. The proposed CNWA schedule will be shared pending Transport Canada's determination on navigability.	
C-19694	25/12/18	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR provided MEM with the 1P1P Project Description.	
C-20230	25/12/18	Great Bear Gold Project Projet Aurifère Great Bear Impact Assessment Agency of Canada (IAAC)	Virtual	A virtual meeting between GBR and IAAC prior to the end of the year. Discussed Impact Statement Submission 2 and sharing it with the communities. All outstanding matters to be addressed in the new year.	IAAC_121825_01.pdf
C-19674	25/12/19	Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed DFO to provide the updated Fish Habitat Offset Compensation Plan draft incorporating DFO's comments and additional information provided by DFO regarding waterbodies frequented by fish. GBR noted the updated FHOCP was included as part of the Impact Statement Submission #2 filed with IAAC on December 13th, and a comment and response table has been provided to provide clarity on how feedback was addressed. GBR confirmed they intend to submit a draft FAA in January, and will share the draft permitting schedule with IAAC for discussion. DFO responded that they received the updated FHOCP.	
C-19689	25/12/19	Environment & Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR emailed IAAC to provide the draft federal permitting schedule for the FAA and MDMER Schedule 2 listing, and noted the date ranges are to be refined as planning progresses. GBR also provided the Level 1 execution schedule for reference, and requested potential dates and times for a meeting in January.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-19692	25/12/23	Great Bear Gold Project Projet Aurifère Great Bear	Email	IAAC emailed GBR the first Draft Detailed Permitting Plan, developed in collaboration between IAAC, DFO, ECCC and TC, based on GBR's previously submitted Initial Project Description. IAAC noted that there may be additional updates as the document is finalized, and that the table of anticipated timelines, key milestones and project specific guidance may change based on new information provided. IAAC requested GBR review and provide questions or comments by January 16, hold any additional meetings and finalize project timelines with an anticipated finalization date in February/March.	
C-19693	25/12/24	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR emailed MEM to note that the initial 1P1P Project Description link was missing the permitting schedule, but has now been added and attached. MEM replied requesting a copy of the presentation from November 10, which GBR provided.	Engagement not related to Project
C-20249	26/01/06	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR is asking for any update on 1P1P PD Description. MEM confirmed that before the holidays they actioned the documents that were submitted to the participating ministries for review. They will compile feedback on eligibility/readiness for the Minister to make a decision unless something comes in the next week or so where they will need clarification or more information. GBR said that they would appreciate the confirmation whether any additional information is required by tomorrow, since ten business-day period outlined in the Guidance Document got concluded today.	
C-20255	26/01/06	Ontario Ministry of Energy & Mines (MOEM)	Email	MEM replied to GBR that the meeting within ten business days is intended to be a quick response to discuss the project in advance of or once a proponent submits a request for designation. MEM also has attached a simple workflow that outlined those initial steps.	
C-20256	26/01/06	Ontario Ministry of Energy & Mines (MOEM)	Email	GBR responded that they appreciate the team's effort and that they are hoping to progress through Steps 1-8 of the workflow by March of this year. They are ready to do anything to help expedite and support the Ministry's review process.	
C-20252	26/01/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	The discussion focused on MECP's recent email requesting water-taking data for ALL GBR water taking in Ontario in response to the letter from Nations.	Engagement not related to Project
C-20333	26/01/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	The MECP has mandated updates to models, emphasizing the use of current data. The supplementation plan for Unnamed Watercourse 3 has been agreed upon, setting a maximum rate of 140 m³/day based on recent consultations, rather than the outdated 375 m³/day. This new rate reflects extensive engagement with the MECP and is supported by real-time data analysis. The necessity for additional reference watershed data is questioned, as prior consultations did not indicate this requirement.	Engagement not related to Project
C-20426	26/01/07	Ontario Ministry of Environment, Conservation and Parks (MECP)	Letter	The Ministry of Citizenship has reviewed the marine archaeological assessment report for the Great Bear Project, submitted as a condition of licensing under the Ontario Heritage Act. The review identified that certain aspects of the assessment were unsatisfactory, particularly regarding recommendations that did not include all areas with marine archaeological potential. A revised report addressing these issues must be submitted by April 7, 2026, to avoid violations of licensing terms. Failure to comply may affect the licensee's record of compliance and future licensing decisions.	MECP_010726_02.pdf
C-20327	26/01/08	Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	MECP reaching out to GBR regarding an ANA letter received regarding construction activities proceeding without a PTTW and requesting the GBR AEX site map showing pumping or dewatering locations, a copy of the water taking records for the AEX site and a description of how the various water takings are being used or managed at the site. GBR requested a copy of the letter received by the MECP from ANA, to which the MECP responded that they will check on sharing this with GBR. GBR provided the information requested to MECP and answered further questions regarding specific on water taken which GBR answered and explained their approach, noting for the MECP to follow-up if there are any concerns.	Engagement not related to Project
C-20253	26/01/09	Ontario Ministry of Environment, Conservation and Parks (MECP)	Virtual	A call was made to an enforcement officer with MECP, to confirm receipt of water taking numbers and to inform him about continued water extraction outside the permit area under the 50m3/day exemption for grouting and BTU drilling. MECP mentioned a meeting scheduled for the following week to align with the PTTW branch. The conversation concluded with a plan to follow up next week.	Engagement not related to Project
C-20337	26/01/16	Fisheries and Oceans Canada (DFO)	Email	WSP have sent Great Bear Resources' Fisheries Act Authorization application and Record of Consultation to DFO/MPO for their review and files	
C-20359	26/01/16	Asubpeeschoseewagong Netum Anishinabek Canadian Environmental Law Association Great Bear Gold Project Projet Aurifère Great Bear Ontario Ministry of Energy & Mines (MOEM) Ontario Ministry of Environment, Conservation and Parks (MECP)	Email	GBR responded to concerns from ANA regarding fish consumption risks related to mercury contamination. GBR acknowledges the need for a comprehensive risk assessment that reflects historical fish consumption rates and the unique health risks faced by ANA due to past mercury exposure. The response emphasizes the importance of including ANA in the technical review process and highlights the community's treaty rights to fish safely. GBR plans to use updated methodologies for health risk assessments, focusing on traditional consumption rates and the need for remediation of mercury levels in fish. The response also critiques the reliance on outdated studies and stresses that any increase in mercury levels from the project would be unacceptable. Overall, GBR commits to ensuring that the project does not exacerbate existing mercury contamination and supports the community's right to restore their traditional fishing practices.	Confidential engagement
C-20414	26/01/16	Great Bear Gold Project Projet Aurifère Great Bear	Email	GBR provided the review of the draft permitting plan to IAAC/AEIC. They also confirmed that they have submitted their Fisheries Act Authorization application to DFO on January 16th. The referenced draft FHOCP was provided to DFO on December 18th, 2025.	

Appendix C: Record of Consultation Government (Jan 1, 2022 to Jan 16, 2026)

Ref. no.	Date	Organizations	Communication Type	Summary	Attachment ID
C-20782	26/01/16	Transport Canada	Email	TC distributing the Navigability Determinations and Applicability of the Canadian Navigable Waters Act (CNWA) Letter for the Great Bear Project. TC states that they have completed navigability assessments for Waterbody 1, Waterbody 2, Waterbody 4, Waterbody 6, Watercourse 1, Watercourse 1A, Watercourse 1B, Watercourse 2, Watercourse 3, Watercourse 4, Watercourse 6A, Watercourse 6B, and Watercourse 6C. TC notes that they have determined that these bodies of water do not meet the definition of ‘navigable water’ as defined under the CNWA.	TC_011625_01

KINROSS
TSX: K NYSE: KGC

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

NEWS RELEASE

Kinross announces robust initial mineral resource of 2.7 Moz. indicated and 2.3 Moz. inferred for Great Bear project

(This news release contains forward-looking information about expected future events and financial and operating performance of the Company. We refer to the risks and assumptions set out in our Cautionary Statement on Forward-Looking Information located on page 12 of this release.)

Toronto, Ontario – February 13, 2023 – Kinross Gold Corporation (TSX: K, NYSE: KGC) ("Kinross" or the "Company") is pleased to announce an initial mineral resource estimate for its 100% owned Great Bear project located in Ontario, Canada.

The initial mineral resource estimate consists of 2.737 Moz. of indicated resources and 2.290 Moz. of inferred resources. The Company's initial open pit and underground mineral resource estimate is set out in the table below.

Table 1: Mineral resource estimate[1]

		Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Indicated	Open Pit	33,110	2.57	**2,737**
Inferred	Open Pit	8,400	2.24	606
Inferred	Underground	11,636	4.50	1,684
Total Inferred		20,037	3.56	**2,290**

Additionally, the majority of the resource is contained in a high-grade core illustrated in the table below, which is a subset of the resource with cut-off grades increased to 0.9 g/t in the open pit and 3.5 g/t in the underground. Kinross plans to target this higher-grade mineralization in the early years of potential production.

Table 2: Sensitivity table with elevated cut-off grades (see technical report for detailed sensitivity tables)[2]

		Tonnes (000's)	Grade (Au g/t)	Ounces (000's)
Indicated	Open Pit	21,686	3.57	**2,491**
Inferred	Open Pit	5,076	3.28	536
Inferred	Underground	5,989	6.07	1,169
Total Inferred		11,065	4.79	**1,705**

Kinross' focus for 2022 was drilling the first ~500 metres at the LP Fault zone to increase confidence in the upper portion of the deposit and facilitate the delivery of the initial mineral resource. The Company drilled over 250 kilometres in 2022, including 225 kilometres of diamond exploration drilling. Combined with the drilling completed by Great Bear since 2018, a total of over 550 kilometres of drilling has now been completed on the property. The results continue to support Kinross' view that the LP Fault zone is expected to host a long-life, high-grade, open-pit and underground mine.

Kinross completed comprehensive data analysis to build high quality lithology, alteration, and structural models which feed the Company's mineral resource estimation domains. Kinross also completed a 35-kilometre confirmatory grade control program on a tighter spaced 8 by 10 metre grid with larger diameter holes as compared to the exploration drilling. This program, which covers approximately 1.5 million tonnes of the open pit resource,

[1] *A full list of underlying assumptions can be found at* ***Appendix A***

[2] *The sensitivity table shown is a subset of the overall resource. The open pit cut-off grade is 0.9 g/t vs. 0.5 g/t in the resource table; the underground cut-off is 3.5g/t vs. 2.3 g/t in the resource table*

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

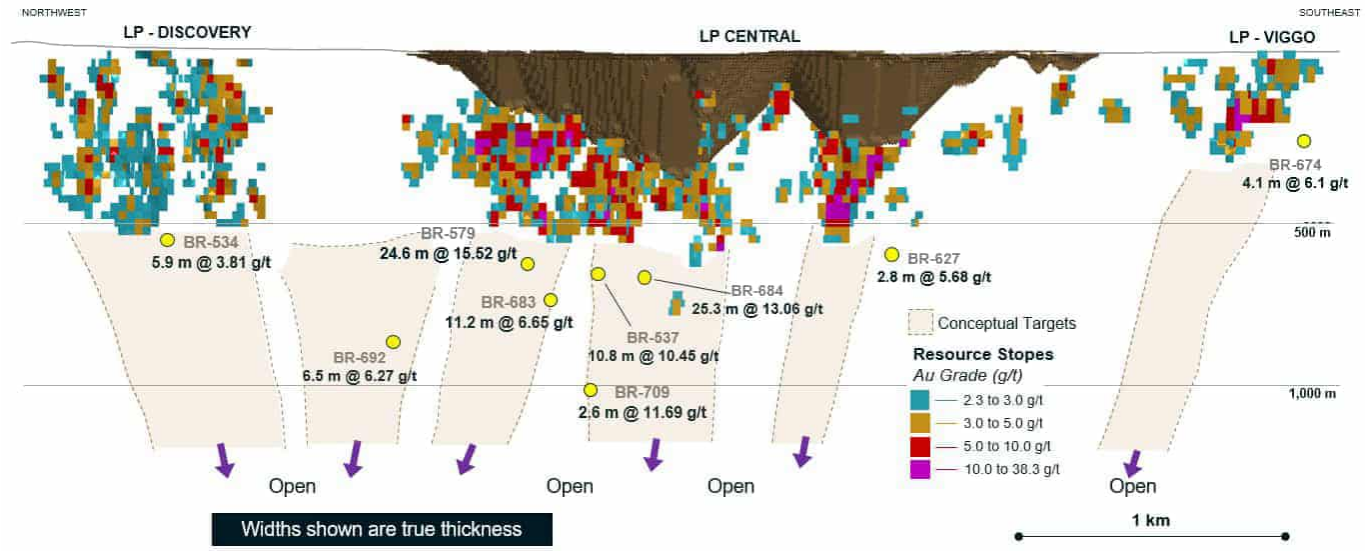
was used to verify the Great Bear resource model, providing a high level of confidence in our stated resource, which is important given the high amount of visible gold in the deposit.

"The Great Bear initial mineral resource estimate marks an exciting milestone for the Company's future development," said **J. Paul Rollinson, President and CEO**. "In just one year since acquiring the property, we have validated our belief for this to potentially become a world class asset. The initial mineral resource estimate and continuity of high grades and widths at depth reinforces our vision for a high-quality open pit and sizeable underground mine.

"We believe the resource we have defined today is just the beginning. The drill results below our resource support our hypothesis that the deposit remains open at depth with high grade and visible gold intercepted down to depths of one kilometre, as illustrated in the long section below.

"These results solidify our expectation that Great Bear will become a top quality, tier one asset in our portfolio, providing long-term upside for our shareholders."

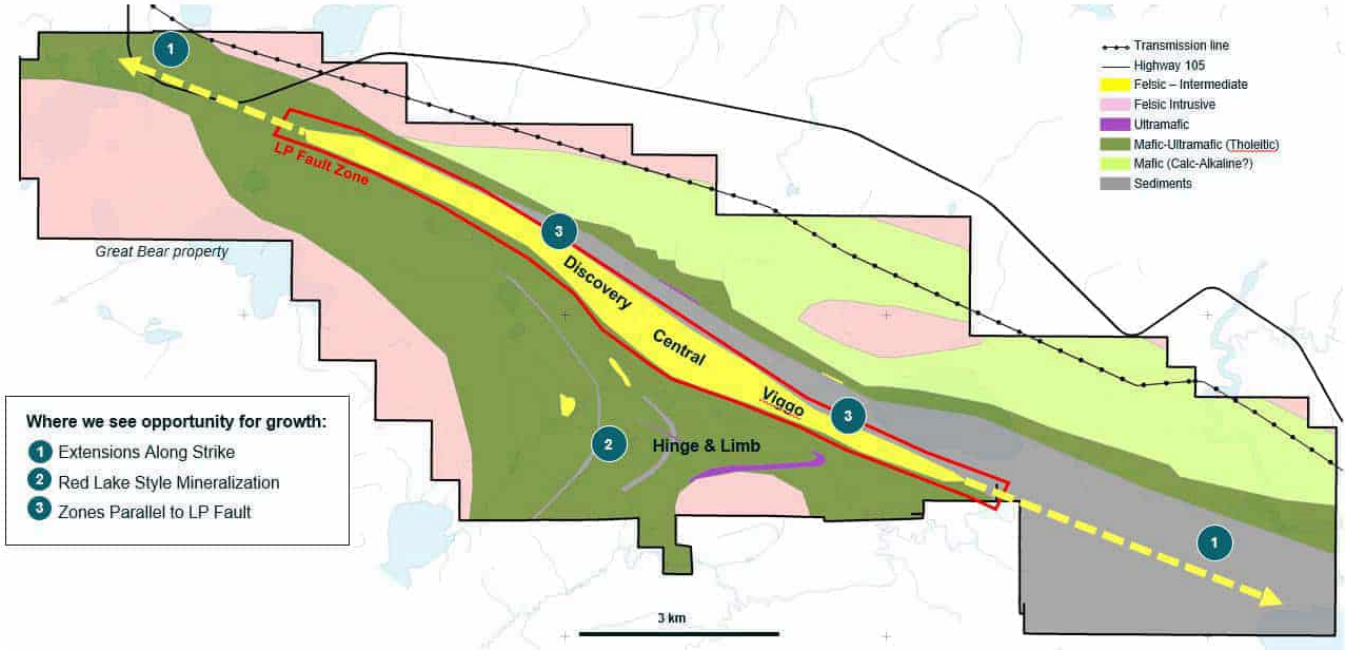
Figure 1: LP grade thickness long section demonstrating depth extension potential



Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

There are multiple zones of high-grade mineralization across the property as seen in the figure below, which will be the target of further drilling activities in 2023 and beyond.

Figure 2: Highly prospective Great Bear land package



The Company has received additional assay results that are not included in the initial mineral resource. See **Appendix B** for a full list of recent significant, composited assay results.

Project Details

Infrastructure in the Great Bear area is well developed with the project located 25 kilometres southeast of the town of Red Lake, Ontario. A paved highway, natural gas pipeline, and provincial power line runs parallel to the project, and the property hosts a network of well-maintained logging roads that facilitate access.

The Company initiated a comprehensive metallurgy testing program in 2022, which is indicating excellent recoveries from an industry standard Gravity + CIL process. Initial test work indicates a high gold recovery of ~95%, that includes a high proportion of gravity recovery. The metallurgy testing will continue in 2023 to obtain higher confidence on the initial recoveries. Additionally, initial geotechnical drilling and testwork is indicating excellent rock strength for the angle of the open pit slopes and integrity of the underground mine.

Kinross is voluntarily releasing a technical report focused on geology and metallurgy that supports this initial mineral resource estimate concurrently following this press release. The technical report has been prepared pursuant to Canadian Securities Administrator's National Instrument 43-101, and may be found at www.kinross.com or under the Company's profile at www.sedar.com.

Baseline environmental surveys, local community socio-economic studies and preliminary engineering activities required for the permitting process are progressing well. Kinross has opened a community office and is continuing its local stakeholder engagement program with local communities and with its partners, Wabauskang and Lac Seul First Nations, on whose traditional territories the project is located.

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

2023 Focus

Kinross' drilling and exploration focus for 2023 is to continue to add inferred resource ounces, define deep mineralization, continue exploration along strike, and identify new targets around the property.

The Company is also progressing studies and permitting for an advanced exploration program that would establish an underground decline to obtain a bulk sample and allow for more efficient exploration of deeper areas of the LP Fault, along with the nearby Hinge and Limb gold zones. Kinross is targeting a potential start of the advanced program as early as 2024.

Kinross continues to advance detailed studies and permitting activities, with plans to release the results of this work in the form of a preliminary economic assessment in 2024.

Conference call details

In connection with this news release, Kinross will hold a conference call and audio webcast on **Monday, February 13, 2023, at 10:00 a.m. ET** to discuss the results, followed by a question-and-answer session. To access the call, please dial:

Canada & US toll-free – +1 (888) 330-2446; Passcode: 4915537
Outside of Canada & US – +1 (240) 789-2732; Passcode: 4915537

Replay (available up to 14 days after the call):

Replay Toll Free Number: +1 (800) 770-2030
Outside of Canada & US: +1 (647) 362-9199
Conference ID: 4915537

You may also access the conference call on a listen-only basis via webcast at our website www.kinross.com. The audio webcast will be archived on www.kinross.com.

About Kinross Gold Corporation

Kinross is a Canadian-based global senior gold mining company with operations and projects in the United States, Brazil, Mauritania, Chile and Canada. Our focus is on delivering value based on the core principles of responsible mining, operational excellence, disciplined growth, and balance sheet strength. Kinross maintains listings on the Toronto Stock Exchange (symbol:K) and the New York Stock Exchange (symbol:KGC).

Media Contact

Victoria Barrington
Senior Director, Corporate Communications
phone: 647-788-4153
victoria.barrington@kinross.com

Investor Relations Contact

Chris Lichtenheldt
Vice-President, Investor Relations
phone: 416-365-2761
chris.lichtenheldt@kinross.com

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

APPENDIX A

1) Unless otherwise noted, the Company's mineral resources are estimated based on a gold price of $1,700 per ounce. Open pit Mineral Resources are estimated at a cut-off grade of 0.5 g/t Au. The LP Zone pit shell was selected at an input gold price of US$1,400/oz (for volume); however, resources are reported based on a US$1,700/oz cut-off value. Underground Mineral Resources are estimated at a cut-off grade of 2.3 g/t Au for LP and Hinge and 2.5 g/t for Limb. The mineral resource estimates are reported in contained units based on Kinross' interest and are estimated based on an exchange rate of one Canadian Dollar to $US 1.30.
(2) The Company's mineral resource estimates as at December 31, 2022 are classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards - For Mineral Resources and Mineral Reserves" adopted by the CIM Council (as amended, the "CIM Definition Standards") in accordance with the requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101"). Mineral resource estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained.
(3) Cautionary note to U.S. investors concerning estimates of mineral reserves and mineral resources. These estimates have been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of United States' securities laws. The terms "mineral reserve", "proven mineral reserve", "probable mineral reserve", "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are Canadian mining terms as defined in accordance with NI 43-101 and the CIM Definition Standards. These definitions differ from the definitions in subpart 1300 of Regulation S-K ("Subpart 1300"), which replaced the United States Securities and Exchange Commission ("SEC") Industry Guide 7 as part of the SEC's amendments to its disclosure rules to modernize the mineral property disclosure requirements. These amendments became effective February 25, 2019 and registrants are required to comply with the Subpart 1300 provisions by their first fiscal year beginning on or after January 1, 2021. While the definitions in Subpart 1300 are more similar to the definitions in NI 43-101 and the CIM Definitions Standard than were the Industry Guide 7 provisions due to the adoption in Subpart 1300 of terms describing mineral reserves and mineral resources that are "substantially similar" to the corresponding terms under the CIM Definition Standards, including the SEC now recognizing estimates of "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" and amending its definitions of "proven mineral reserves" and "probable mineral reserves" to be "substantially similar" to the corresponding CIM Definitions, the definitions in Subpart 1300 still differ from the requirements of, and the definitions in, NI 43-101 and the CIM Definition Standards. U.S. investors are cautioned that while the above terms are "substantially similar" to CIM Definitions, there are differences in the definitions in Subpart 1300 and the CIM Definition Standards. Accordingly, there is no assurance any mineral reserves or mineral resources that the Company may report as "proven mineral reserves", "probable mineral reserves", "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" under NI 43-101 would be the same had the Company prepared the mineral reserve or mineral resource estimates under the standards set forth in Subpart 1300. U.S. investors are also cautioned that while the SEC recognizes "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" under Subpart 1300, investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of mineral resources or into mineral reserves. Mineralization described using these terms has a greater amount of uncertainty as to its existence and feasibility than mineralization that has been characterized as reserves. Accordingly, investors are cautioned not to assume that any measured mineral resources, indicated mineral resources, or inferred mineral resources that the Company reports are or will be economically or legally mineable. Further, "inferred mineral resources" have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Therefore, U.S. investors are also cautioned not to assume that all or any part of the "inferred mineral resources" exist. Under Canadian securities laws, estimates of "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies, except in rare cases. As a foreign private issuer that files its annual report on Form 40-F with the SEC pursuant to the multi-jurisdictional disclosure system, the Company is not required to provide disclosure on its mineral properties under the Subpart 1300 provisions and will continue to provide disclosure under NI 43-101 and the CIM Definition Standards. If the Company ceases to be a foreign private issuer or loses its eligibility to file its annual report on Form 40-F pursuant to the multi-jurisdictional disclosure system, then the Company will be subject to reporting pursuant to the Subpart 1300 provisions, which differ from the requirements of NI 43-101 and the CIM Definition Standards.
For the above reasons, the mineral reserve and mineral resource estimates and related information in this presentation may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.
(4) The Company's mineral resource and mineral reserve estimates were prepared under the supervision of and verified by Mr. John Sims, who is a qualified person as defined by NI 43-101. Mr. Sims was an officer of Kinross until December 31, 2020. Mr. Sims remains the Company's qualified person as an external consultant.
(5) The Company's normal data verification procedures have been used in collecting, compiling, interpreting and processing the data used to estimate mineral reserves and mineral resources. Independent data verification has not been performed.
(6) Rounding of values to the 000s may result in apparent discrepancies.
(7) Mineral resources are exclusive of mineral reserves.
(8) Mineral resources that are not mineral reserves do not have to demonstrate economic viability. Mineral resources are subject to infill drilling, permitting, mine planning, mining dilution and recovery losses, among other things, to be converted into mineral reserves. Due to the uncertainty associated with inferred mineral resources, it cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to indicated or measured mineral resources, including as a result of continued exploration.

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

APPENDIX B
Great Bear – recent full assay results with key intercepts highlighted

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-546		254.0	259.0	5.0	4.5	3.20	Yuma
BR-546	and	299.2	302.8	3.6	2.8	0.91	
BR-546	and	335.8	349.0	13.3	11.1	0.52	
BR-546	and	355.3	372.6	17.4	15.4	0.70	
BR-546	and	387.0	400.4	13.4	10.7	1.51	
BR-546	and	406.1	411.8	5.7	4.4	0.31	
BR-546	and	414.6	419.7	5.1	4.0	0.36	
BR-546	and	471.3	475.0	3.8	3.3	0.55	
BR-546	and	489.0	496.3	7.3	6.4	3.07	
BR-547		742.0	758.0	16.0	14.4	4.05	Yauro
BR-547	including	750.3	757.0	6.7	5.1	8.99	
BR-548		515.8	518.8	3.0	2.9	0.97	Yuma
BR-548	and	560.6	570.0	9.4	7.6	0.48	
BR-548	and	579.0	612.3	33.3	25.6	0.78	
BR-548	including	672.8	673.8	1.0	0.9	29.19	
BR-548	and	631.0	634.0	3.0	2.7	1.34	
BR-548	including	684.8	687.8	3.0	2.6	3.58	
BR-548	and	671.7	702.0	30.3	26.7	2.09	
BR-549		41.0	65.1	24.1	19.5	0.72	Yauro
BR-549	and	73.1	77.1	4.0	3.2	0.68	
BR-549	and	98.8	103.5	4.7	3.5	1.80	
BR-549	and	109.0	114.0	5.1	4.0	3.27	
BR-579		777.1	804.3	27.2	21.2	0.84	Yuma
BR-579	and	840.0	847.7	7.7	6.3	20.99	
BR-579	and	857.2	883.9	26.7	24.6	15.52	
BR-579	and	901.9	906.8	4.9	4.1	2.84	
BR-589		794.0	797.0	3.0	2.4	0.71	Yuma
BR-589	and	806.8	809.8	3.0	2.8	0.60	
BR-589	and	815.8	818.8	3.0	2.4	0.78	
BR-589	and	852.8	874.5	21.7	16.5	2.11	
BR-589	and	892.3	910.6	18.3	14.5	0.42	
BR-589	and	946.3	951.6	5.3	4.3	0.96	
BR-599		353.5	359.0	5.5	4.8	0.42	Bruma
BR-599	and	371.6	393.2	21.7	19.1	0.90	
BR-614	No significant intersections						Auro
BR-615		442.1	442.7	0.6	0.5	44.70	Auro
BR-615	and	642.5	648.0	5.5	5.2	0.81	
BR-616	No significant intersections						Auro
BR-617	No significant intersections						Viggo
BR-618		347.0	351.0	4.0	3.0	3.14	Viggo
BR-618	and	395.9	398.9	3.0	2.3	0.48	
BR-619		416.8	421.7	4.9	4.4	1.05	Viggo
BR-625		747.0	754.5	7.5	5.6	1.23	Auro
BR-625	and	762.9	782.8	19.9	17.3	2.06	
BR-625	including	779.6	780.6	0.9	0.8	25.40	
BR-625	and	882.0	885.9	3.9	3.1	0.47	
BR-626		738.0	745.5	7.5	7.1	1.54	Auro
BR-626	and	765.0	772.5	7.5	5.9	0.42	
BR-626	and	813.0	819.3	6.3	4.8	1.24	

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-626	and	829.5	834.0	4.5	4.2	0.79	
BR-627		735.3	755.8	20.5	16.6	1.88	Auro
BR-627	including	745.0	748.3	3.3	2.8	5.68	
BR-627	and	803.0	811.5	8.5	8.0	1.05	
BR-628		586.6	592.5	5.9	5.5	0.41	Auro
BR-628	and	636.8	645.0	8.2	7.2	1.03	
BR-628	and	712.5	721.4	8.9	7.0	0.61	
BR-629		660.0	686.1	26.1	20.4	0.64	Auro
BR-629	and	792.0	796.5	4.5	3.4	0.55	
BR-645		417.8	418.3	0.5	0.4	40.60	Auro
BR-648	No significant intersections						Auro
BR-649		203.7	213.7	10.0	9.0	5.95	Auro
BR-649	including	206.0	207.0	1.0	1.0	52.70	
BR-649	and	226.4	240.6	14.2	10.6	2.99	
BR-649	including	226.4	227.2	0.8	0.7	34.10	
BR-649	and	366.5	373.8	7.4	5.7	6.70	
BR-652		931.5	938.9	7.4	5.7	0.81	Discovery
BR-657		294.4	306.3	11.9	10.0	0.90	Discovery
BR-657	and	315.3	367.7	52.4	47.2	1.05	
BR-657	and	388.5	401.8	13.4	10.5	0.78	
BR-657	and	415.9	418.9	3.0	2.7	0.46	
BR-657	and	448.1	451.1	3.0	2.4	1.06	
BR-657	and	598.9	603.9	5.0	4.1	0.52	
BR-658		271.0	275.0	4.0	3.6	0.45	Discovery
BR-658	and	289.3	301.6	12.3	10.8	0.76	
BR-658	and	309.5	386.4	76.9	58.4	1.48	

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-658	including	377.0	382.5	5.5	5.0	5.91	
BR-658	and	391.5	397.5	6.0	4.7	1.21	
BR-658	and	402.6	409.5	6.9	5.5	0.63	
BR-664	No significant intersections						Discovery
BR-665		454.5	457.5	3.0	2.6	1.36	Discovery
BR-665	and	576.9	580.2	3.3	3.0	0.58	
BR-665	and	647.3	651.9	4.6	3.6	0.49	
BR-666		534.0	544.5	10.5	9.0	0.78	Discovery
BR-666	and	552.4	556.0	3.6	3.4	0.92	
BR-666	and	580.8	586.5	5.7	4.3	0.82	
BR-666	and	614.3	622.8	8.5	6.4	0.71	
BR-666	and	629.9	655.0	25.2	23.1	1.06	
BR-668		219.0	241.4	22.4	16.8	0.58	Discovery
BR-668	and	260.1	304.1	44.0	33.8	0.84	
BR-668	and	310.8	316.8	6.0	5.5	0.33	
BR-668	and	352.3	366.4	14.1	12.4	0.54	
BR-668	and	378.4	390.9	12.5	11.5	0.74	
BR-668	and	471.4	480.2	8.8	7.7	0.41	
BR-668	and	487.5	501.4	13.9	10.6	0.84	
BR-672		386.8	394.9	8.1	7.2	0.38	Viggo
BR-672	and	412.5	417.0	4.5	3.5	2.14	
BR-676		476.2	484.5	8.4	7.3	0.71	Viggo
BR-677	No significant intersections						Viggo
BR-678	No significant intersections						Viggo
BR-681		655.7	662.5	6.9	5.8	4.91	Yuma
BR-681	including	660.5	661.5	1.0	0.9	26.70	

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-682		773.3	785.7	12.4	11.2	0.95	Yuma
BR-682	and	799.7	802.7	3.1	2.8	6.72	
BR-682	and	874.8	879.4	4.6	3.5	5.76	
BR-683		795.1	802.0	6.9	5.7	4.04	Yuma
BR-683	including	795.1	796.3	1.1	1.1	20.20	
BR-683	and	874.1	880.0	5.9	5.1	5.04	
BR-683	and	917.5	973.6	56.1	47.1	2.14	
BR-683	including	917.5	929.5	12.0	11.2	6.65	
BR-683	and including	941.9	942.5	0.6	0.5	45.70	
BR-684		741.5	746.3	4.8	3.7	0.77	Yauro
BR-684	and	829.5	835.5	6.0	5.2	2.15	
BR-684	and	854.0	930.0	76.1	62.4	4.51	
BR-684	including	880.0	881.4	1.4	1.3	213.36	
BR-685		545.9	553.0	7.1	6.7	5.04	Yauro
BR-685	including	551.8	553.0	1.3	1.0	26.90	
BR-685	and	627.0	630.0	3.0	2.7	0.48	
BR-685	and	728.2	732.2	4.0	3.4	0.36	
BR-686		312.0	324.2	12.2	9.1	0.43	Yauro
BR-686	and	551.6	563.3	11.7	10.1	0.49	
BR-687		367.0	506.0	139.0	111.2	3.19	Yauro
BR-687	including	375.3	377.0	1.7	1.6	29.58	
BR-687	and including	461.0	469.6	8.6	6.5	15.67	
BR-687	and including	486.7	500.9	14.2	13.4	11.37	
BR-687	and	516.0	519.1	3.1	2.4	0.52	
BR-687	and	562.6	576.9	14.3	12.4	2.04	

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-687	and	600.7	630.2	29.5	24.8	1.75	
BR-687	including	617.0	625.0	8.0	7.2	4.29	
BR-688		617.2	628.0	10.8	9.8	0.40	Yauro
BR-688	and	644.9	659.2	14.3	12.7	1.29	
BR-688	and	672.0	681.6	9.6	9.1	1.09	
BR-688	and	695.8	710.5	14.8	12.1	3.33	
BR-688	including	701.1	708.6	7.6	5.7	5.86	
BR-688	and	730.8	734.1	3.3	2.9	1.00	
BR-688	and	770.0	777.5	7.5	6.1	0.62	
BR-688	and	941.5	948.0	6.5	5.2	1.14	
BR-689		676.5	680.7	4.1	3.8	0.65	Yauro
BR-689	and	686.9	698.2	11.3	9.3	2.42	
BR-689	including	691.8	695.6	3.9	3.3	6.08	
BR-691		1,011.3	1,015.2	3.9	3.3	0.36	Bruma
BR-691	and	1,023.8	1,051.2	27.4	24.6	0.75	
BR-691	and	1,124.8	1,128.0	3.3	2.7	2.41	
BR-692		576.7	579.8	3.0	2.9	1.20	Bruma
BR-692	and	1,060.6	1,073.6	13.0	10.9	0.51	
BR-692	and	1,082.0	1,112.0	30.0	27.9	3.14	
BR-692	and	1,185.5	1,190.0	4.5	4.1	3.35	
BR-693		854.0	859.5	5.5	5.2	0.54	Bruma
BR-693	and	872.5	882.0	9.5	7.5	0.39	
BR-693	and	887.9	893.3	5.4	4.3	0.70	
BR-701		798.5	805.5	7.0	5.5	1.54	Yuma
BR-701	and	865.3	872.5	7.2	6.6	0.58	
BR-701	and	922.4	969.0	46.7	39.2	0.45	

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-701	and	990.0	1,005.5	15.5	12.4	1.09	
BR-701	and	1,013.0	1,023.0	10.0	8.6	0.60	
BR-701	and	1,029.0	1,034.5	5.5	5.0	0.40	
BR-701	and	1,044.9	1,049.1	4.2	3.7	0.40	
BR-702		432.0	435.0	3.0	2.3	0.63	Yuma
BR-702	and	579.1	588.0	9.0	7.2	0.55	
BR-702	and	607.2	626.0	18.9	17.7	0.93	
BR-702	and	648.5	663.1	14.6	11.8	0.47	
BR-702	and	673.0	686.0	13.0	12.2	6.85	
BR-702	including	677.5	686.0	8.5	7.8	10.25	
BR-703		729.0	732.7	3.6	3.3	0.88	Yuma
BR-703	and	813.0	921.0	108.0	90.7	1.26	
BR-703	including	905.2	905.7	0.5	0.4	208.00	
BR-704		708.0	711.0	3.0	2.3	0.55	Bruma
BR-704	and	798.0	805.7	7.7	6.6	0.49	
BR-704	and	812.7	851.1	38.4	36.1	0.72	
BR-704	and	871.5	881.1	9.5	7.8	0.52	
BR-704	and	939.0	942.0	3.0	2.6	0.41	
BR-705		606.0	609.0	3.0	2.7	0.65	Bruma
BR-705	and	692.0	708.9	16.9	14.9	0.46	
BR-706		726.7	733.4	6.7	5.2	0.55	Bruma
BR-706	and	742.2	750.5	8.3	7.5	2.60	
BR-706	and	807.7	816.0	8.3	7.5	1.90	
BR-707		696.0	699.0	3.0	2.7	1.92	Yauro
BR-707	and	715.4	719.7	4.4	3.3	0.41	
BR-707	and	877.5	885.0	7.5	5.8	0.50	

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-709		1,336.9	1,341.4	4.6	3.5	8.20	Yuma
BR-709	including	1,338.0	1,341.1	3.1	2.6	11.69	
BR-709	and	1,402.0	1,416.3	14.3	11.7	1.28	
BR-709	including	1,411.8	1,414.3	2.5	2.0	5.29	
BR-709	and	1,454.7	1,458.8	4.0	3.1	0.86	
BR-710		524.1	532.1	8.1	7.2	0.53	Bruma
BR-710	and	552.8	563.3	10.5	9.0	0.82	
BR-710	including	609.3	610.5	1.3	1.0	18.60	
BR-711		714.0	735.1	21.1	18.7	1.63	Bruma
BR-711	including	719.6	725.5	6.0	5.2	4.21	
BR-711	and	751.0	757.5	6.5	5.0	0.83	
BR-711	and	820.5	823.9	3.4	3.1	1.02	
BR-711	and	992.5	1,000.0	7.5	6.7	1.70	
BR-711	including	997.0	1,000.0	3.0	2.4	3.58	
BR-712		560.5	561.5	1.0	0.9	40.40	Bruma
BR-712	and	633.3	658.3	25.1	18.8	0.51	
BR-712	and	910.0	916.0	6.0	5.6	0.57	
BR-713		739.7	769.0	29.3	22.6	2.06	Yuma
BR-713	including	756.0	761.0	5.0	4.2	9.86	
BR-713	and	822.0	1,028.1	206.1	162.8	1.43	
BR-713	including	836.5	838.0	1.5	1.5	56.57	
BR-713	and including	856.5	858.0	1.5	1.3	17.40	
BR-713	and including	1,014.7	1,015.2	0.5	0.4	279.00	
BR-714		899.7	919.5	19.8	18.8	0.96	Yuma
BR-714	and	932.2	935.2	3.0	2.4	0.45	
BR-714	and	944.5	947.5	3.0	2.4	0.41	

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-714	and	965.4	978.9	13.5	11.7	0.58	
BR-715		580.6	585.7	5.2	4.1	3.01	Yuma
BR-715	and	663.8	674.7	10.9	10.4	0.33	
BR-715	and	677.8	692.6	14.9	12.8	0.67	
BR-721		208.7	217.9	9.2	8.5	1.25	Discovery
BR-721	and	297.8	300.8	3.0	2.8	0.30	
BR-721	and	332.7	336.5	3.8	3.3	0.57	
BR-722	No significant intersections						Discovery
BR-723		116.5	119.5	3.0	2.6	0.66	Discovery
BR-724	No significant intersections						Discovery
BR-730		39.0	61.0	22.0	20.7	0.57	Auro
BR-731		321.7	332.2	10.5	8.6	0.45	Viggo
BR-737		264.5	277.0	12.5	9.4	1.53	Viggo
BR-738	No significant intersections						Viggo
BR-744		521.6	527.2	5.6	4.8	1.40	Viggo
BR-745	No significant intersections						Viggo
BR-747		352.0	355.0	3.1	2.8	0.70	Viggo
BR-747	and	366.0	404.5	38.5	29.3	0.63	
BR-748		362.8	363.8	1.1	1.0	28.50	Viggo
BR-748	and	406.1	413.1	7.1	5.4	0.89	
BR-749		725.3	729.1	3.8	3.2	0.58	Auro
BR-750		678.0	683.0	5.0	4.1	0.42	Auro
BR-750	and	692.3	696.8	4.5	4.1	1.81	
BR-750	and	702.8	716.2	13.4	12.3	5.18	
BR-750	including	715.6	716.2	0.5	0.5	104.00	
BR-750	and	819.8	826.0	6.3	4.9	0.58	

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
BR-751		497.3	508.0	10.7	9.0	0.51	Auro
BR-751	and	531.5	544.4	12.9	10.5	0.95	
BR-751	and	563.5	567.5	4.0	3.1	0.54	
BR-751	and	594.5	599.5	5.0	3.9	0.76	
BR-751	and	700.3	703.3	3.0	2.5	0.48	
BR-751	and	718.3	722.3	4.0	3.8	0.58	
BR-752		550.2	558.2	8.0	6.2	0.68	Auro
BR-752	and	584.9	602.1	17.2	13.6	4.73	
BR-752	including	586.2	593.1	6.9	6.4	10.71	
BR-752	and	712.5	719.0	6.5	6.1	2.59	
BR-753		860.5	865.5	5.0	4.2	0.70	Auro
BR-754		710.2	715.7	5.5	4.5	10.52	Auro
BR-760		392.0	407.6	15.6	13.2	0.66	Viggo
BR-761	No significant intersections						Viggo
BR-763		567.5	572.7	5.2	4.0	0.52	Viggo
BR-764	No significant intersections						Viggo
DL-078		316.5	323.2	6.7	5.8	0.83	Limb
DL-078	and	332.0	337.5	5.5	4.6	1.32	
DL-079		488.0	492.0	4.0	3.4	0.51	Limb
DL-079	and	503.0	511.7	8.7	8.0	0.59	
DL-079	and	518.8	529.6	10.8	8.6	1.00	
DL-080		478.4	485.3	6.9	6.5	1.47	Limb
DL-081	No significant intersections						Limb
DL-082	No significant intersections						Limb
DL-084	No significant intersections						Limb
DL-085		698.6	706.0	7.5	6.3	0.52	Limb

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
DL-085	and	919.3	935.5	16.3	14.1	7.26	
DL-085	including	919.3	925.3	6.0	5.7	14.28	
DL-085	and including	933.9	935.5	1.6	1.4	16.74	
DL-086		626.8	632.3	5.5	4.2	1.83	Limb
DL-087		685.4	703.6	18.3	14.1	2.17	Limb
DL-087	including	696.1	700.6	4.5	3.8	6.03	
DL-090		40.3	46.8	6.5	5.8	3.88	Limb
DL-090	including	45.4	46.8	1.4	1.3	15.40	
DL-091	No significant intersections						Limb
DL-092	No significant intersections						Limb
DL-094		298.0	302.3	4.3	3.5	1.03	Limb
DL-094	and	468.5	471.5	3.0	2.5	0.86	
DL-095		408.8	412.5	3.6	2.8	0.95	Limb
DL-096	No significant intersections						Limb
DL-097	No significant intersections						Limb
DL-098	No significant intersections						Limb
DL-099		585.2	588.5	3.3	2.7	1.21	Limb
DL-099	and	640.9	646.7	5.8	4.9	1.45	
DL-102	No significant intersections						Limb
DL-103		507.8	511.3	3.4	2.9	1.91	Limb
DL-103	and	560.8	564.6	3.8	3.3	0.66	
DL-104	No significant intersections						Limb
DL-105		101.3	104.3	3.0	2.6	0.49	Limb
DL-105	and	221.1	231.2	10.1	7.6	0.87	
DL-106		295.2	298.8	3.6	2.7	0.79	Limb
DL-107		153.3	156.8	3.5	2.8	0.46	Limb

Hole ID		From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Target
DL-108	No significant intersections						Limb
DL-109		307.8	319.0	11.2	9.0	0.97	Limb
DL-110	No significant intersections						Limb
DL-111	No significant intersections						Limb
DL-112		612.6	616.0	3.5	3.0	0.95	Limb
DL-113		683.0	690.8	7.8	6.2	1.14	Limb
DL-115		835.4	838.5	3.1	2.8	1.08	Limb
DL-115	and	863.1	869.4	6.3	5.7	0.63	
DL-116		799.9	805.3	5.4	4.8	0.98	Limb
DL-120		63.9	68.2	4.4	3.4	2.81	Limb
DL-120	and	647.9	651.7	3.9	3.3	2.89	
DL-121	No significant intersections						Limb
DL-122		346.7	351.0	4.3	3.7	0.60	Limb
DL-122	and	365.2	371.2	6.0	5.3	3.81	
DL-130		645.0	650.0	5.0	4.1	3.29	Limb
DL-131		18.1	55.0	36.9	30.3	0.87	Limb
DL-131	and	69.0	95.5	26.5	23.3	0.62	
DL-140		630.6	638.3	7.8	7.4	0.40	Limb
DL-141	No significant intersections						Limb
DL-142		226.5	228.0	1.5	1.3	21.50	Limb
DL-142	and	915.0	926.3	11.3	9.0	6.29	
DL-142	including	921.25	926.25	5	4.5	13.20	
DL-142	and	1099.95	1100.45	0.5	0.4	57.80	

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

Cautionary statement on forward-looking information

All statements, other than statements of historical fact, contained or incorporated by reference in this news release including, but not limited to, any information as to the future financial or operating performance of Kinross, constitute "forward-looking information" or "forward-looking statements" within the meaning of certain securities laws, including the provisions of the Securities Act (Ontario) and the provisions for "safe harbor" under the United States Private Securities Litigation Reform Act of 1995 and are based on expectations, estimates and projections as of the date of this news release. Forward-looking statements contained in this news release include, without limitation, statements with respect to: the calculation of mineral resources at the project and the possibility of eventual economic extraction of minerals from the project; the identification of future mineral resources at the project; the Company's ability to convert existing mineral resources into categories of mineral resources or mineral reserves of increased geological confidence; the Company's anticipated timing for permitting future phases of the project and development and construction of and production at the project, including the possibility of constructing either or both of an open pit and underground mines; the timing of and future prospects for exploration and any expansion of the project, including upside associated with the project's land package; the potential for expanding the initial mineral resource and the potential for identifying additional mineralization in areas of intercepts and conceptual areas for extension and expansion; potential recovery rates or processing techniques; the proposed timing and completion of studies and the announcement of study results; the potential for and anticipated timing of a positive investment decision for the project or the commencement of early works, construction or commercial production; the Company's target amount of drilling on the project; and the Company's plans to construct an exploration decline. The words "believe", "conceptual", "expect", "future", "plan", "potential", "progress", "prospective", "target", "vision" and "upside" or variations of or similar such words and phrases or statements that certain actions, events or results "may", "could", "will" or "would" occur, and similar expressions identify forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Kinross as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The estimates, models and assumptions of Kinross referenced, contained or incorporated by reference in this news release, which may prove to be incorrect, include, but are not limited to, the various assumptions set forth herein and in our Annual Information Form dated March 31, 2022 and our full-year 2021 Management's Discussion and Analysis as well as: (1) there being no significant disruptions affecting the activities of the Company whether due to extreme weather events and other or related natural disasters, labour disruptions, supply disruptions, power disruptions, damage to equipment or otherwise; (2) permitting and development of the project being consistent with the Company's expectations; (3) political and legal developments in Ontario and Canada being consistent with its current expectations; (4) the accuracy of the current mineral resource estimates of the Company (including but not limited to ore tonnage and ore grade estimates); (5) certain price assumptions for gold and silver and foreign exchange rates; (6) Kinross' future relationship with the Wabauskang and Lac Seul First Nations and other Indigenous groups being consistent with the Company's expectations; and (7) inflation and prices for diesel, natural gas, fuel oil, electricity and other key supplies being approximately consistent with anticipated levels. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking statements made in this news release are qualified by these cautionary statements and those made in our other filings with the securities regulators of Canada and the United States including, but not limited to, the cautionary statements made in the "Risk Factors" section of our Annual Information Form dated March 31, 2022 and the "Risk Analysis" section of our full year 2021 Management's Discussion & Analysis. These factors are not intended to represent a complete list of the factors that could affect Kinross. Kinross disclaims any intention or obligation to update or revise any forward-looking statements or to explain any material difference between subsequent actual events and such forward looking statements, except to the extent required by applicable law.

Other information

Where we say "we", "us", "our", the "Company", or "Kinross" in this news release, we mean Kinross Gold Corporation and/or one or more or all of its subsidiaries, as may be applicable.

The technical information about the Company's mineral properties contained in this news release has been prepared under the supervision of Mr. John Sims who is a "qualified person" within the meaning of National Instrument 43-101.Mr. Sims was an officer of Kinross until December 31, 2020. Mr. Sims remains the Company's qualified person as an external consultant.

Source: Kinross Gold Corporation

KINROSS

Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON Canada M5J 2V5

phone: (416) 365-5123
fax: (416) 363-6622

Honourable Todd Smith
Minister of Energy
10th Floor, 77 Grenville Street
Toronto, Ontario
M7A 2C1

May 16, 2023

Dear Minister Smith,

On behalf of Kinross, I want to thank you for taking the time to meet with us last week. We appreciated the opportunity to discuss our multi-billion dollar investment in the Great Bear Project outside of Red Lake with you and your staff. As discussed, we are deeply committed to building this world-class, multi-generational mine, which will provide significant economic benefits to our First Nations partners, the community of Red Lake and the province of Ontario. However, there are challenges that must be addressed in order to maximize the potential of the project, including securing access to adequate power supply in a timely manner.

We were pleased to hear that you meet with Minister Pirie and Minister Fedeli on a regular basis to discuss mining projects requiring additional power and for your offer to have your staff connect us with Minister Fedeli's office so that we can brief him on the Great Bear Project. We were also very pleased to note that your team committed to raising the issue of timelines for access with the IESO when meeting with them, particularly given our concerns with their forecasting which has not yet included our project.

As promised during the meeting, we have included with this email the responses we received from IESO after we raised concerns with them about the Northwest IRRP. In their response they stated that they will be revising their forecast for the region to be released in Q1 of 2023. The current forecast and plans still do not include the Great Bear Project as either having an in-service date or having a known peak load, let alone the change in ownership of the project. We are continuing our active discussions with both the IESO and Hydro One about the needs of our project as well as working with our internal and external engineers to provide all relevant information to them to help expedite the process and remove any and all gaps in information they might need.

Minister Smith, again, thank you very much for taking the time to meet with us. We will be sure to keep your team updated on the progress of the project. Of course, we are always available to answer any questions that you, your staff, or the greater ministry might have. Please never hesitate to reach out to me on my cell phone (647-746-9151) or per e-mail (mike.vanakkooi@kinross.com) directly with any future requests for further information and background.

Sincerely,

Mike van Akkooi
Senior Vice President

Impact Assessment Agency of Canada

MEETING WITH KINROSS GOLD – GREAT BEAR PROJECT – JUNE 8, 2023

Impact Assessment Process

- Pre-planning
- Planning: up to 180 days plus any proponent pause
- Impact Statement: up to 3 years*
- Impact Assessment Report: up to 300 days
- Decision-making: up to 60 days
- Post-decision

More information:
https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/impact-assessment-process-overview.html
https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/the-impact-assessment-process-timelines-and-outputs.html
https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html

Impact Statement Phase

- Proponent prepares IS, including
  - engagement (or even collaboration/ co-drafting) with Indigenous communities,
  - technical discussions with government review team on selected topics
- Proponent submits IS
- Agency verifies IS is suitable for consultation and technical review
- Agency holds formal comment period and technical review
- Agency issues Deficiency Report(s) (as required)
- Proponent addresses deficiencies (via response, addendum, or new IS, as required by Agency)
- Agency posts notice that required information and studies are received

Maximum of three years for the above

Public Interest Factors

An impact assessment decision considers:

- the extent to which the **adverse effects** within federal jurisdiction, and the adverse direct or incidental effects, are significant
- the implementation of appropriate **mitigation** measures
- **impacts on any Indigenous group** and any adverse impact on the rights of the Indigenous peoples of Canada
- the extent to which the effects of the project hinder or contribute to Canada's ability to meet **environmental obligations** and **climate change commitments**
- the project's contributions to **sustainability***

***Sustainability** means the ability to protect the environment, contribute to the social and economic well-being of the people of Canada, and preserve their health in a manner that benefits present and future generations.*

https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/making-decisions-impact-assessments.html

Pre-planning Considerations

Recommendation to prepare draft Initial Project Description for review by Agency, certain federal authorities

- Identifies potential conformity issues
- Identifies major information gaps and strategic opportunities to supplement with information that could help close off issues and focus assessment on key issues

Engage with Indigenous communities and the public

- Agency can provide guidance on Indigenous communities to contact
- Identifies key issues of importance early on, potential early resolution

Opportunity in the Initial Project Description to tell clear stories about key issues and how common effects will be managed

- consider unique project context and geographic context, as well as
- standard mitigation and operational procedures and confidence in effectiveness

Early permitting discussions

Begin discussions with **federal permitting authorities** in advance

- Opportunities to streamline information requirements, submissions
- Identify information requirements for other federal processes
- Minimizes time needed following decision under the IAA
- *Agency can help coordinate this if proponent communicates intent in advance and proposes a work plan*

https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/coordination-federal-authorizations-impact-assessment-process.html

Begin discussions with **provincial ministries** in advance

- An effective Planning Phase requires province is engaged and informed
- Learn about timelines – may be able to start processes now
- Provincial class EAs, other authorizations (e.g., ESA)

https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-cooperation-plan.html

Planning Phase

Key Steps and Timelines for the first 80 days

Agency posts Initial Project Description and starts comment period

20 - 30 DAYS (service standard)

Agency prepares Summary of Issues

10 DAYS

Proponent submits Detailed Project Description including response to Summary of Issues

30 DAYS

Agency determines if impact assessment is required

10 - 20 DAYS

DAY 1 — **Consultations and engagement continue** — DAY 80

Proponent may request timeline suspension during Planning Phase, for example after receiving Summary of Issues and before submitting Detailed Project Description

Key documents

- INITIAL PROJECT DESCRIPTION
- SUMMARY OF ISSUES
- DETAILED PROJECT DESCRIPTION AND RESPONSE TO SUMMARY OF ISSUES

https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guide-preparing-project-description-detailed-project-description.html

Planning Phase

Key Steps and Timelines for remaining 100 days

Agency drafts Tailored Impact Statement Guidelines (TISG) and Plans
30-40 DAYS (service standard)

Agency engages on draft TISG and Plans
30-40 DAYS

Agency finalizes TISG and Plans
30-40 DAYS

Agency issues Notice of Commencement and posts final TISG & Plans

DAY 80 — **Consultations and engagement continue** — DAY 180

Key documents

- COOPERATION PLAN
- INDIGENOUS ENGAGEMENT AND PARTNERSHIP PLAN
- PERMITTING PLAN
- PUBLIC PARTICIPATION PLAN
- TAILORED IMPACT STATEMENT GUIDELINES

BUILDING A LEGACY IN RED LAKE, ONTARIO

Great Bear Project

Proposed Underground and Open Pit Gold Mine

Meeting with IAAC
June 8, 2023

KINROSS

We are proud to be working
in the traditional territory of the collective members
of the Anishinaabe Nation in Treaty #3

We recognize and respect
the inherent and treaty rights of our partners
in the Wabauskang and Lac Seul First Nations

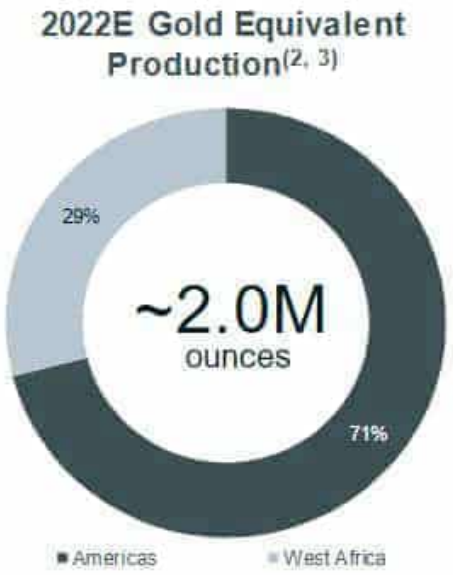
We are committed to meaningful dialogue
with our partner First Nations and strive for
continued improvement in all that we do

WABAUSKANG FIRST NATION

KINROSS
Great Bear Project

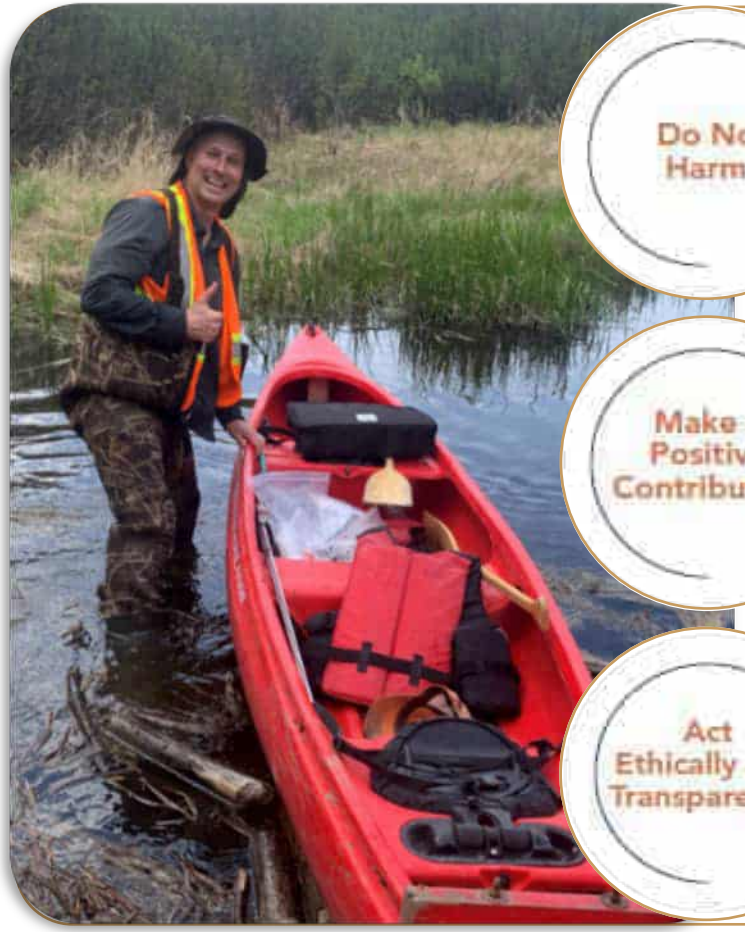
LAC SEUL FIRST NATION

Large, Americas-Focused Gold Producer



(1) Top tier defined as assets with Life of Mine (LOM) into the next decade and annual production averaging greater than 500koz and LOM AISC <$1000/oz.
(2) Please refer to the Cautionary Statement on Forward-Looking Information on slide 2 of this presentation.
(3) Production guidance for 2022 expected to be at low end of the 2.15Moz +/-5% range.
(4) Annual production level for "Producing Assets" represents gold equivalent production. Annual production level for "Development Projects" based on estimates of previously disclosed total life-of-mine production divided by total mine life.

Committed to Operating Responsibly: Our approach to sustainability



Do No Harm

We work to protect our workforce, environment and host communities from negative impacts

Make a Positive Contribution

We aim to provide meaningful livelihoods for employees, opportunities for suppliers and improvements in our host communities

Act Ethically and Transparently

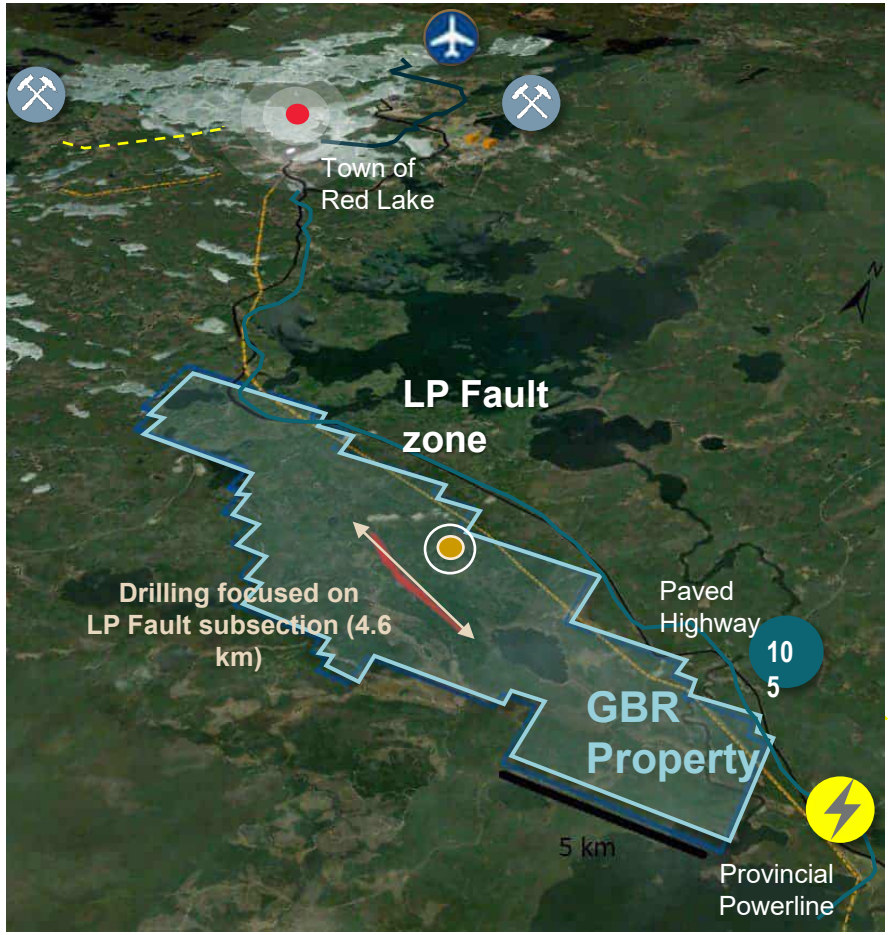
We operate with respect for human rights and we engage with our stakeholders

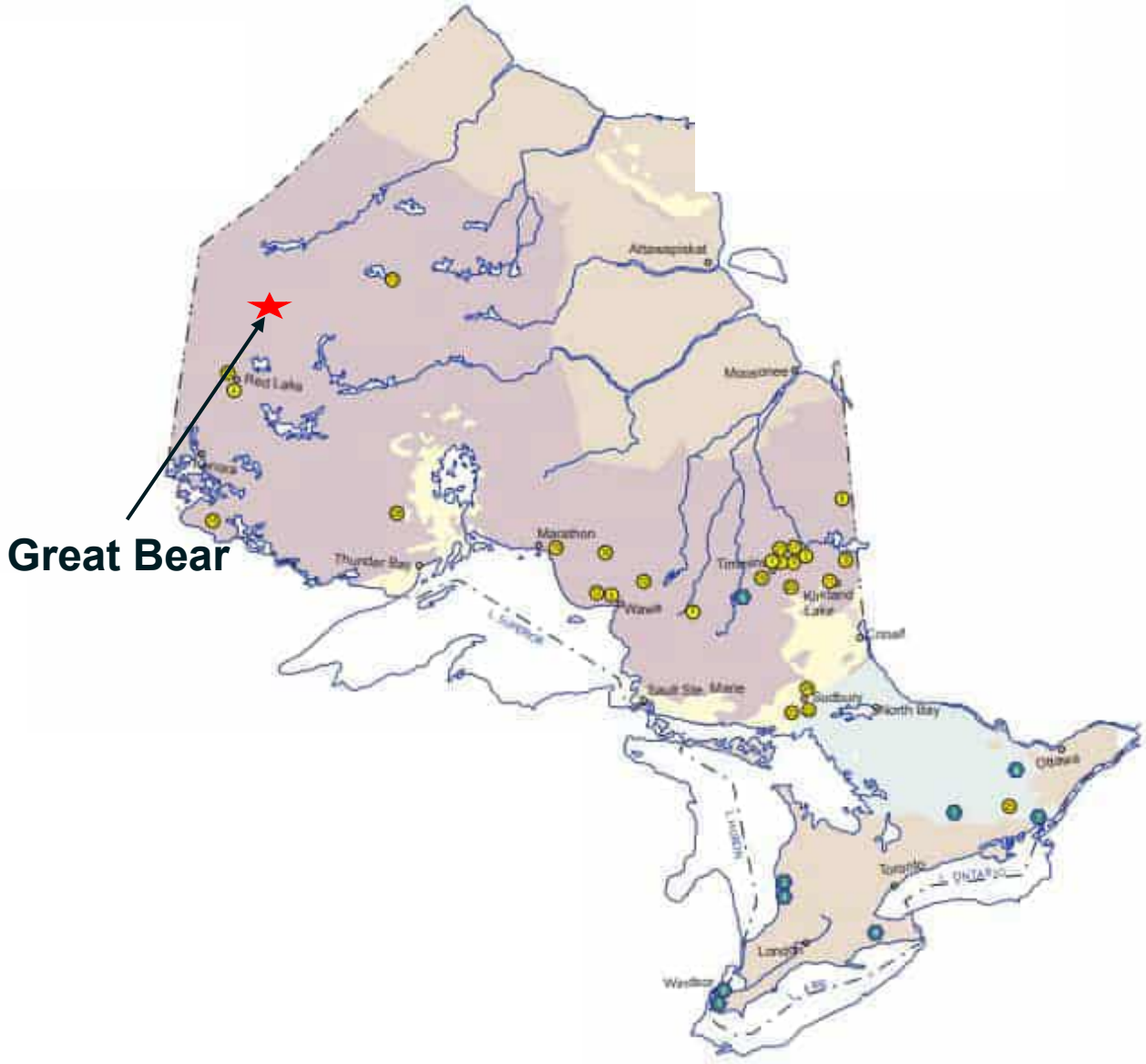
Continuous Improvement

We strive to improve our approach to corporate responsibility practices

KINROSS

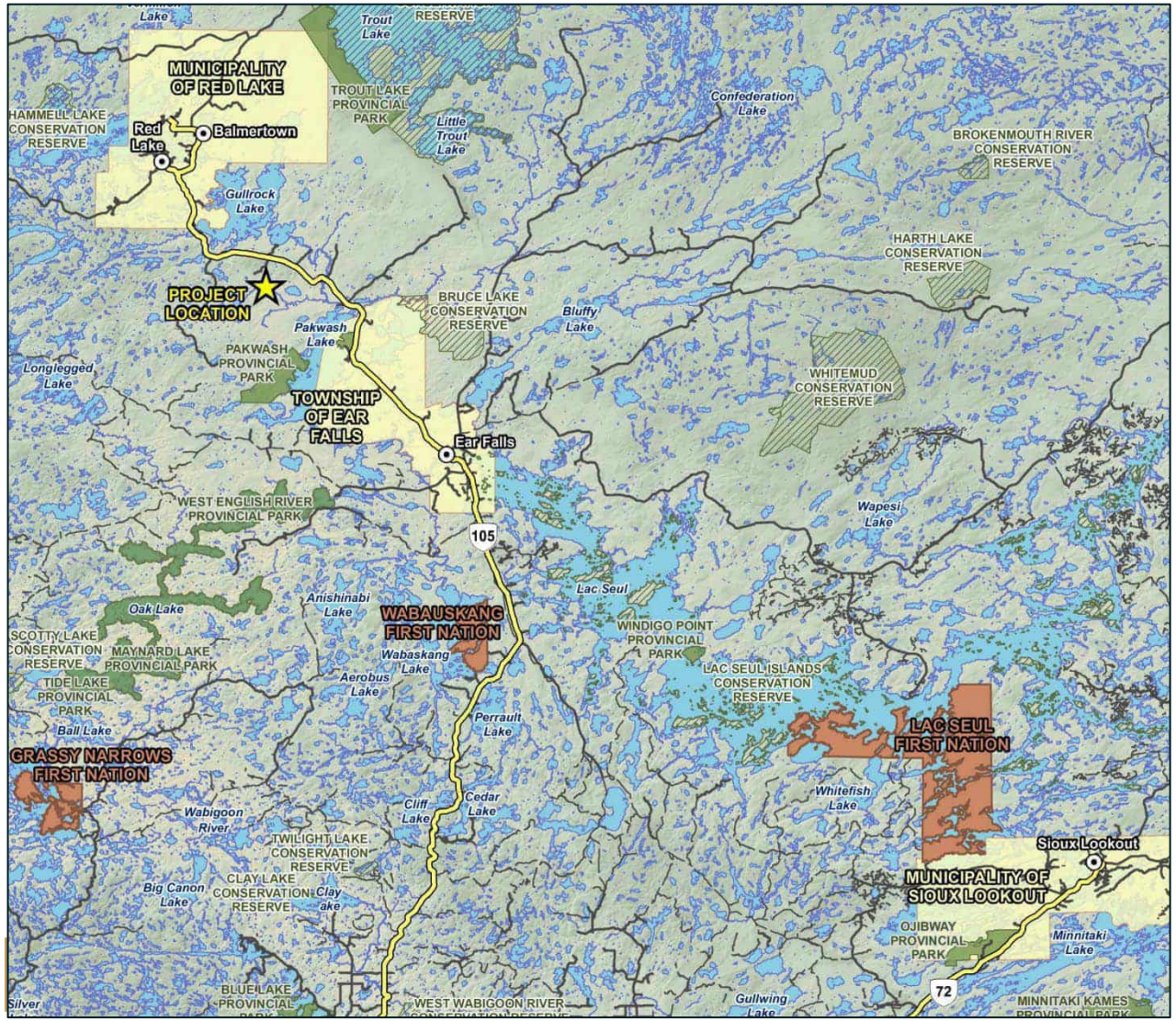
Great Bear Project Located ~25km South-East of Red Lake





KINROSS

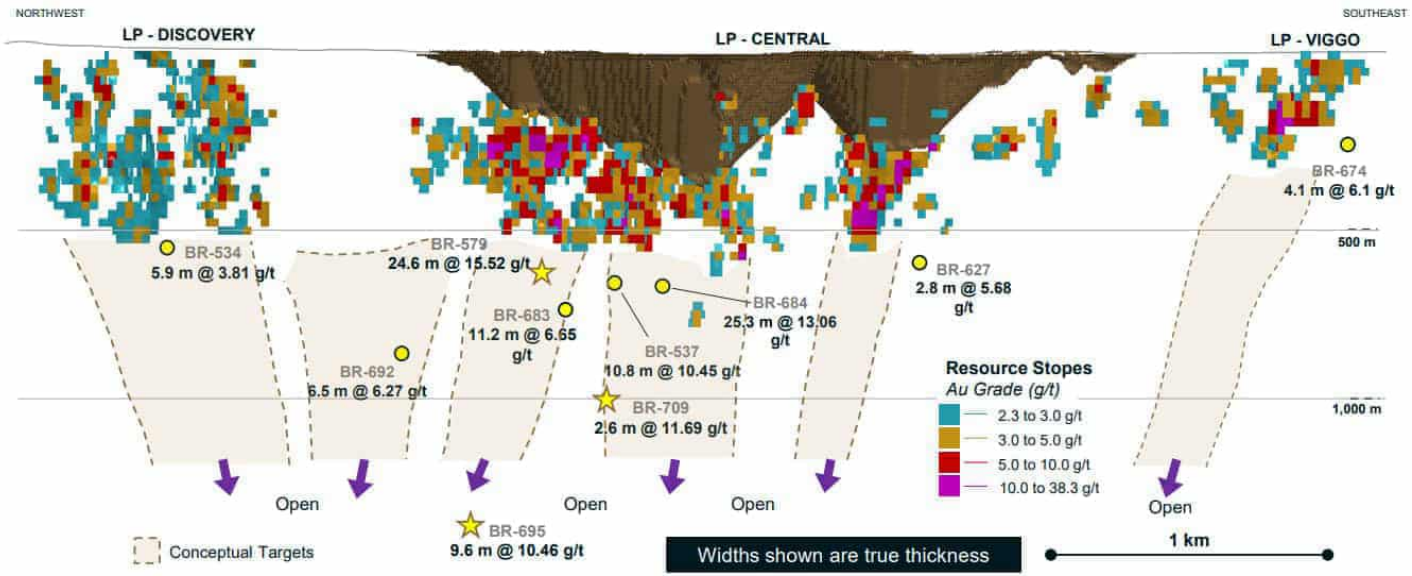
Great Bear Gold Project Overview



- Greenfield site, although past and ongoing, forestry, mineral exploration and aggregate activities
- Well-connected to local infrastructure:
  - Highway 105
  - Enbridge Gas Pipeline
  - Existing 115 kV transmission line
- Located in Chukuni River watershed (flows into Pakwash Lake and English River)
- The following provisions of the Physical Activities Regulations are expected to be met
  - 18 The construction, operation, decommissioning and abandonment of one of the following:
  - (c) a new metal mine,…, with an ore production capacity of 5,000 tonnes per day (tpd) or more
  - (d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 tpd or more.
- Initial Project Description has been prepared

Great Bear Gold Project. We are targeting production in 2029

- Underground and open pit gold mine operating in parallel for first ~10 years; UG only mine once open pit mined out
- Onsite processing rate is ~10,000 average tonnes per day (under further study)
- Drilling to date is focused on the top ~700 meters. Deep drilling to ~1,200m has confirmed continuity at depth.
- Mainly gold in resource with no other major byproduct metals
- Planning for grid power supply, with natural gas generation bridging if line upgrade / expansion not ready when required by the project



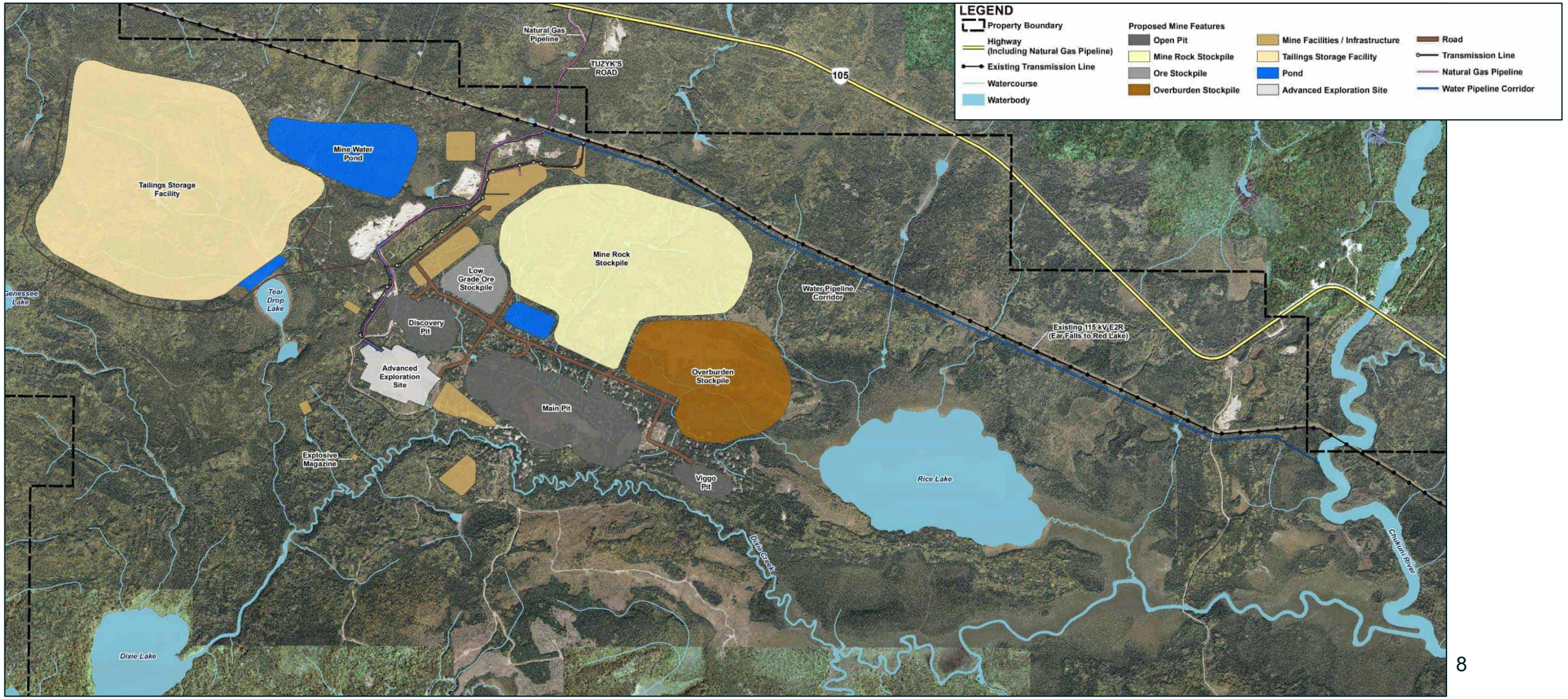
Initial resource estimate for the Great Bear gold project has 5Moz (MI&I) of high grade mineralization

We continue to drill with continued positive results at depth

KINROSS

[1] Please refer to Kinross' external press release in early 2023 outlining Great Bear's 43-101 technical report and resource.

Great Bear Gold Project – Preliminary infrastructure layout



Our Vision for Great Bear

Long Life OP & UG Mine
Estimated production of
~300 – 500 koz per year

Strong Partnerships
With our First Nations and local communities in and around Red Lake, Ontario

Low Emissions Mine
Via electrification and clean Ontario grid power

Local Employment
700 – 1,000 potential direct jobs created

Best in Class Mine
Driven by workforce skill, design, efficiency and automation

Creating a Lasting Legacy in Red Lake, Ontario

KINROSS

Great Bear is Ontario's next flagship gold mine; Kinross is investing heavily to get there

	Since Great Bear acquisition by Kinross in 2022 for USD$1.1B we have…	By the time we get to targeted first production in 2029 we should have…
Exploration	drilled >225,000 meters	Drilled >500,000 meters on property & Advanced Exploration project
Capital & Exploration Spend	Invested > CAD$80M on exploration, baseline and technical studies	Invested an additional ~CAD$1.0-1.3B [1] Targeting ~300–500 koz gold production/year
Employment	~50 Kinross Employees >100 Contractors	Created 700–1,000 jobs in both the underground and open pit
Mineral Resources	Reported an Initial gold resource of ~5Moz[2]	Built an initial open pit and underground operation with longer-term underground potential at depth

Our Internal Scoping Study shows over CAD$650M in Provincial and Ontario Mining Taxes over the next 20 years at $1,800 gold[3]

KINROSS

[1] Capital spending assumes both the Advanced Exploration (AEX) program and main project and is in Canadian Dollars. FX rate for CAD / USD is assumed at 1.30.
[2] Please refer to Kinross' external press release in early 2023 outlining Great Bear's 43-101 technical report and resource.
[3] This current estimate assumes full production, based on preliminary scoping studies and is subject to change.

Putting People First in Community Engagement

We are working to be best practice partners with Wabauskang and Lac Seul First Nations through regular communication, active listening and responding to community needs

2022 Engagement

- **Focused on maintaining meaningful dialogue** in smooth transitioning of First Nations partner relationship under new Kinross project management
- **Organized and participated in community events**, including an overnight fun fishing derby event focused on developing trust and understanding in community relations between Kinross and Lac Seul and Wabauskang First Nations leadership
- **Organized and funded capacity training** and certification for four Environmental Monitors from Wabauskang and Lac Seul FN communities
- **Opened talks toward an updated partner Agreement** to consider Advanced Exploration phase work ahead

KINROSS

Great Bear Project Key Upcoming Milestones

Continue to work with our stakeholders to build a lasting legacy in Ontario

2022 to date

- ✓ **Kinross purchased Property**
- ✓ **Completed 200 km+ of exploration drilling**
- ✓ **Positive introductions to First Nations, Red Lake, Ear Falls, other communities**
- ✓ **Initiated advanced exploration program permitting**
- ✓ **Robust initial 43-101 resource released**

June 2023+

- **Preliminary Economic Assessment** (for 2024 release)
- **Continue Exploration Drilling** (growing the resource!)
- **Initiate Federal Impact Assessment process** (aiming to complete the Planning Phase in late 2023 / early 2024)

2024

- **Impact Statement Completion** (end of year)

2026 / 2027

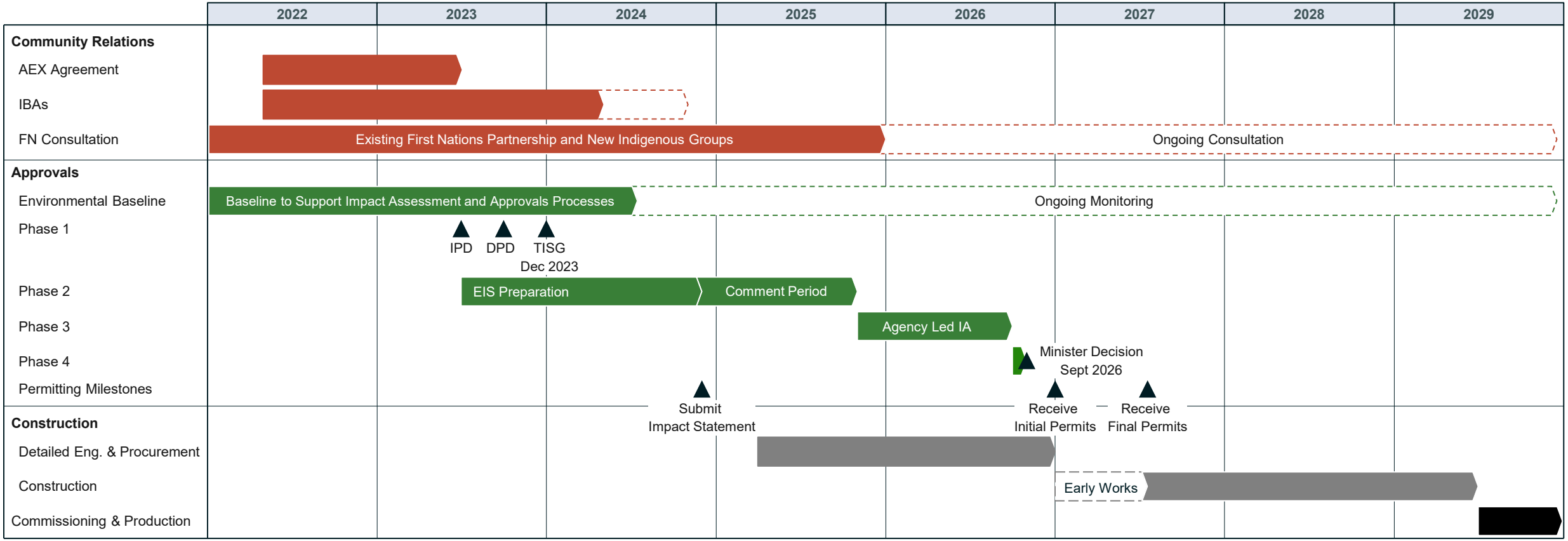
- **Construction Begins** (assuming permits and leases in hand) – Groundbreaking ceremony

2029

- **First Gold Production**

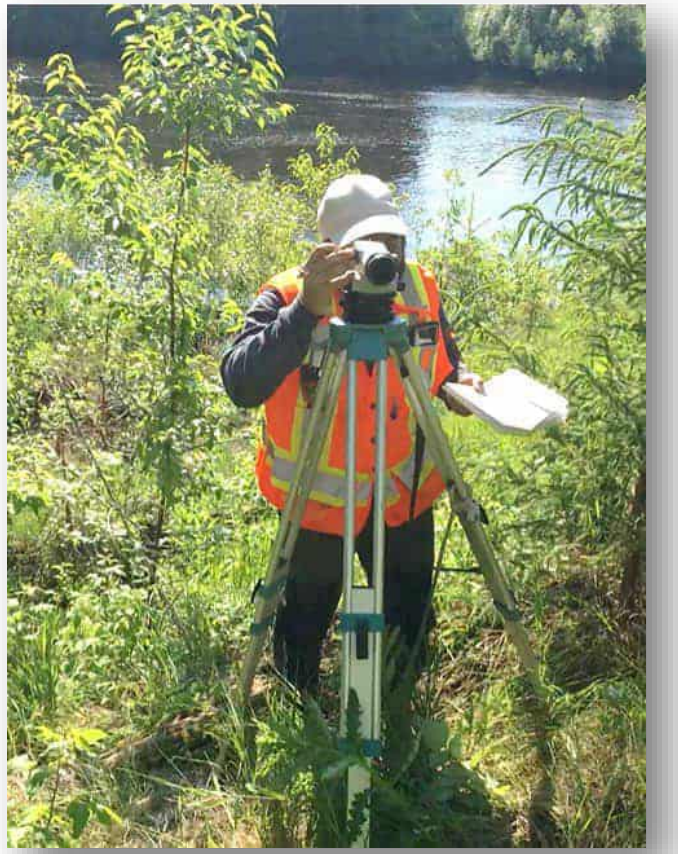
KINROSS

Great Bear Schedule Critical Path is Permitting. Preliminary Schedule for Production in 2029



KINROSS

Building a lasting legacy in Red Lake



KINROSS

KINROSS

BUILDING A LEGACY IN RED LAKE, ONTARIO

Great Bear Project

May 2023

KINROSS

Commercial in Confidence

We are proud to be working
in the traditional territory of the collective members
of the Anishinaabe Nation in Treaty #3

We recognize and respect
the inherent and treaty rights of our partners
in the Wabauskang and Lac Seul First Nations

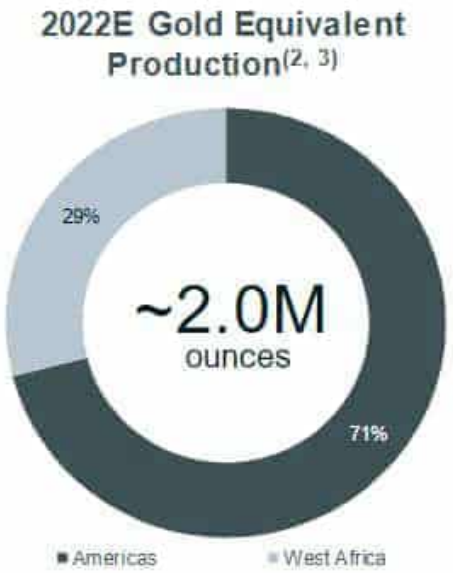
We are committed to meaningful dialogue
with our partner First Nations and strive for
continued improvement in all that we do

WABAUSKANG FIRST NATION

KINROSS
Great Bear Project

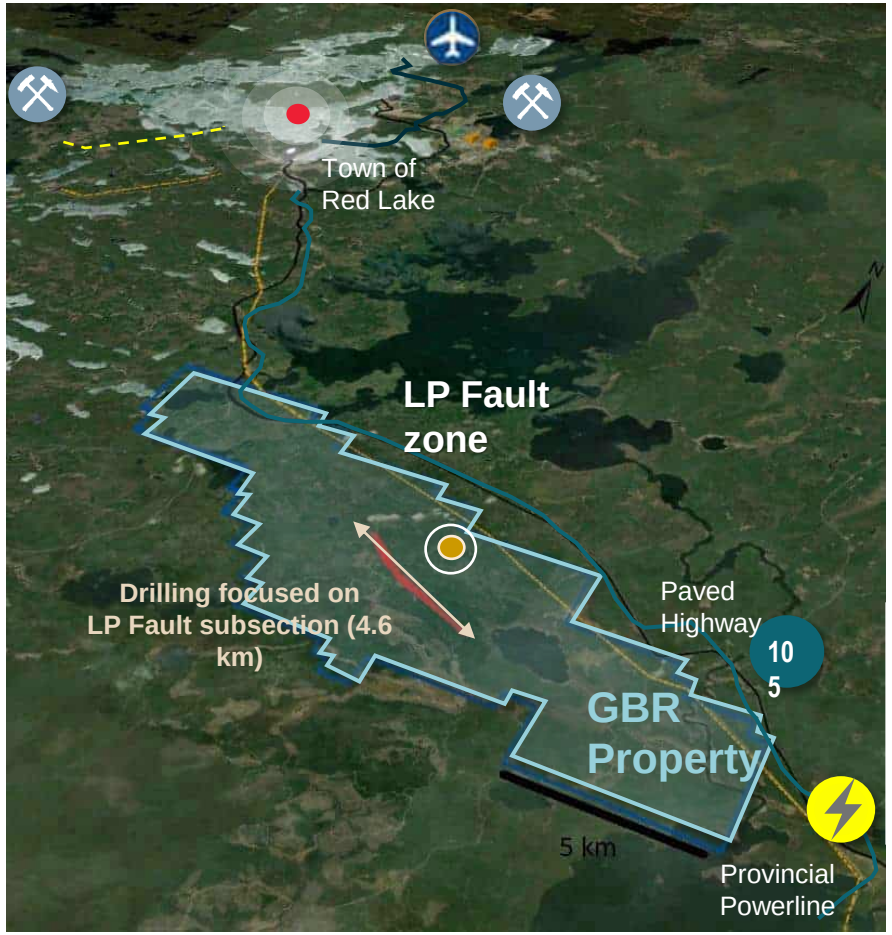
LAC SEUL FIRST NATION

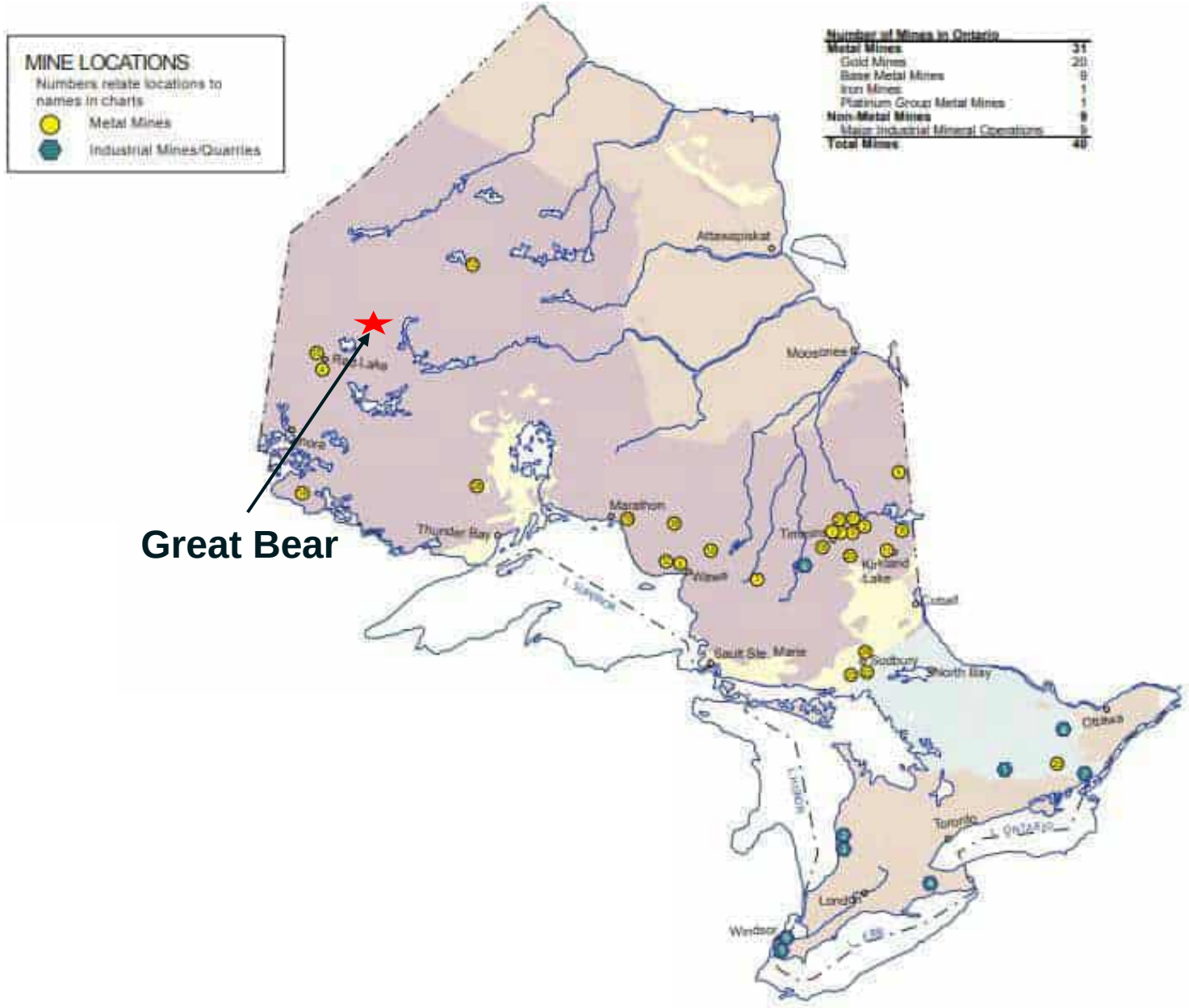
Large, Americas-Focused Gold Producer



(1) Top tier defined as assets with Life of Mine (LOM) into the next decade and annual production averaging greater than 500koz and LOM AISC <$1000/oz.
(2) Please refer to the Cautionary Statement on Forward-Looking Information on slide 2 of this presentation.
(3) Production guidance for 2022 expected to be at low end of the 2.15Moz +/-5% range.
(4) Annual production level for "Producing Assets" represents gold equivalent production. Annual production level for "Development Projects" based on estimates of previously disclosed total life-of-mine production divided by total mine life.

Great Bear Project Location





KINROSS

Putting People First in Community Engagement

We are working to be best practice partners with First Nations through regular communication, active listening and responding to community needs

2022 Engagement

- **Focused on maintaining meaningful dialogue** in smooth transitioning of First Nations partner relationship under new Kinross project management.
- **Organized and participated in community events**, including an overnight fun fishing derby event focused on developing trust and understanding in community relations between Kinross and Lac Seul and Wabauskang First Nations leadership.
- **Organized and funded capacity training** and certification for four Environmental Monitors from Wabauskang and Lac Seul FN communities.
- **Opened talks toward an updated Partner Agreement** to consider Advanced Exploration work.

FOR DISCUSSION PURPOSES ONLY- PRIVILEGED & CONFIDENTIAL

What Will Great Bear Mine Look Like

OP & UG Mine
Estimated production of ~300 – 500 koz per Year:

Strong Partnerships
With our First Nations and local communities in and around Red Lake, Ontario

Low Emissions Mine
Via electrification and clean Ontario grid power

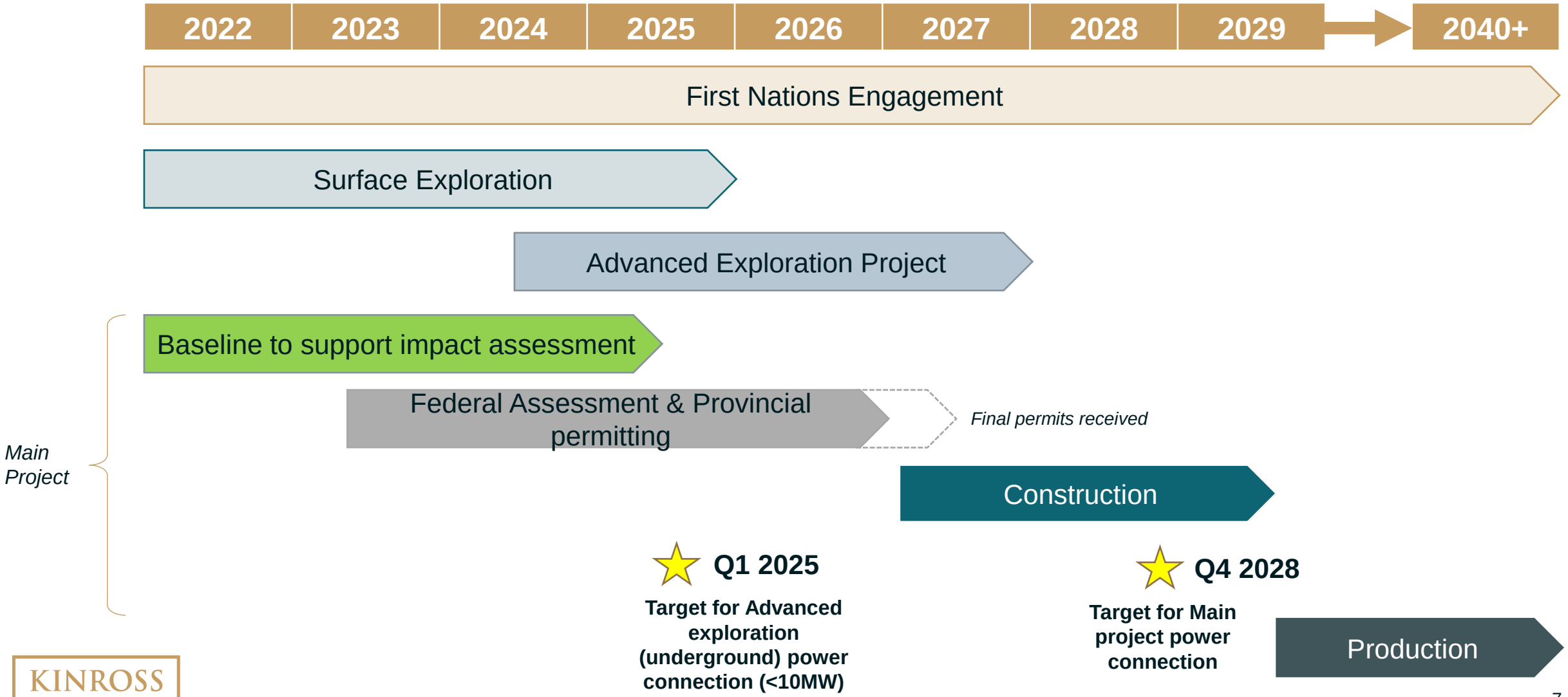
Local Employment
700 – 1,000 potential jobs created

Best in Class Mine
Driven by workforce skill, design, efficiency and automation

Creating a Lasting Legacy in Red Lake, Ontario

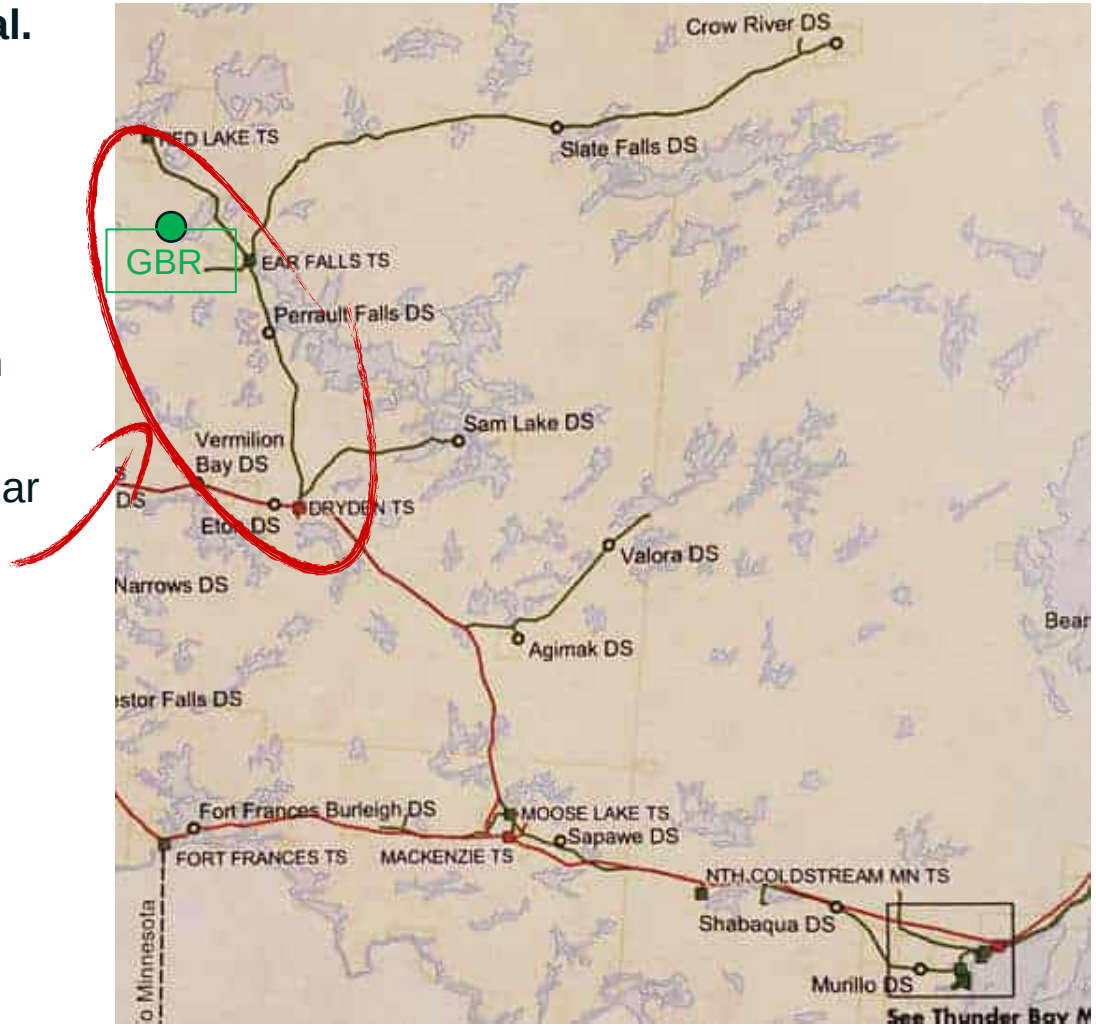
KINROSS

2029 Production Timeline Concept

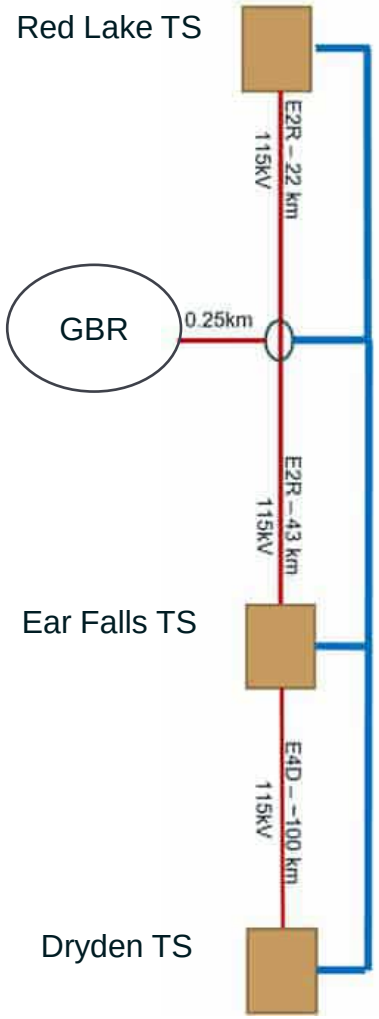


Power Capacity, Access & Timeline Concerns

- **We need sufficient, affordable grid power to reach full potential.**
- **Great Bear will need ~25MW by Q4-2028**, initially for commissioning and then grow **~50 MW** as production ramps up.
- We have a corporate commitment to reduce our GHG emissions intensity by 30% by the year 2030 .
  - Planning to electrify the underground mine and portions of the open pit to achieve these targets.
- The existing 115 kV lines (~70 Years old) between Red Lake and Ear Falls, and Ear Falls to Dryden, and related substations are the primary constraints.
- Preliminary Hydro One and IESO studies indicate existing lines **unable to provide >10-15 MW** without significant investment.



Grid Connection Options



New line

Option1 (Upgrades): *May meet our needs*

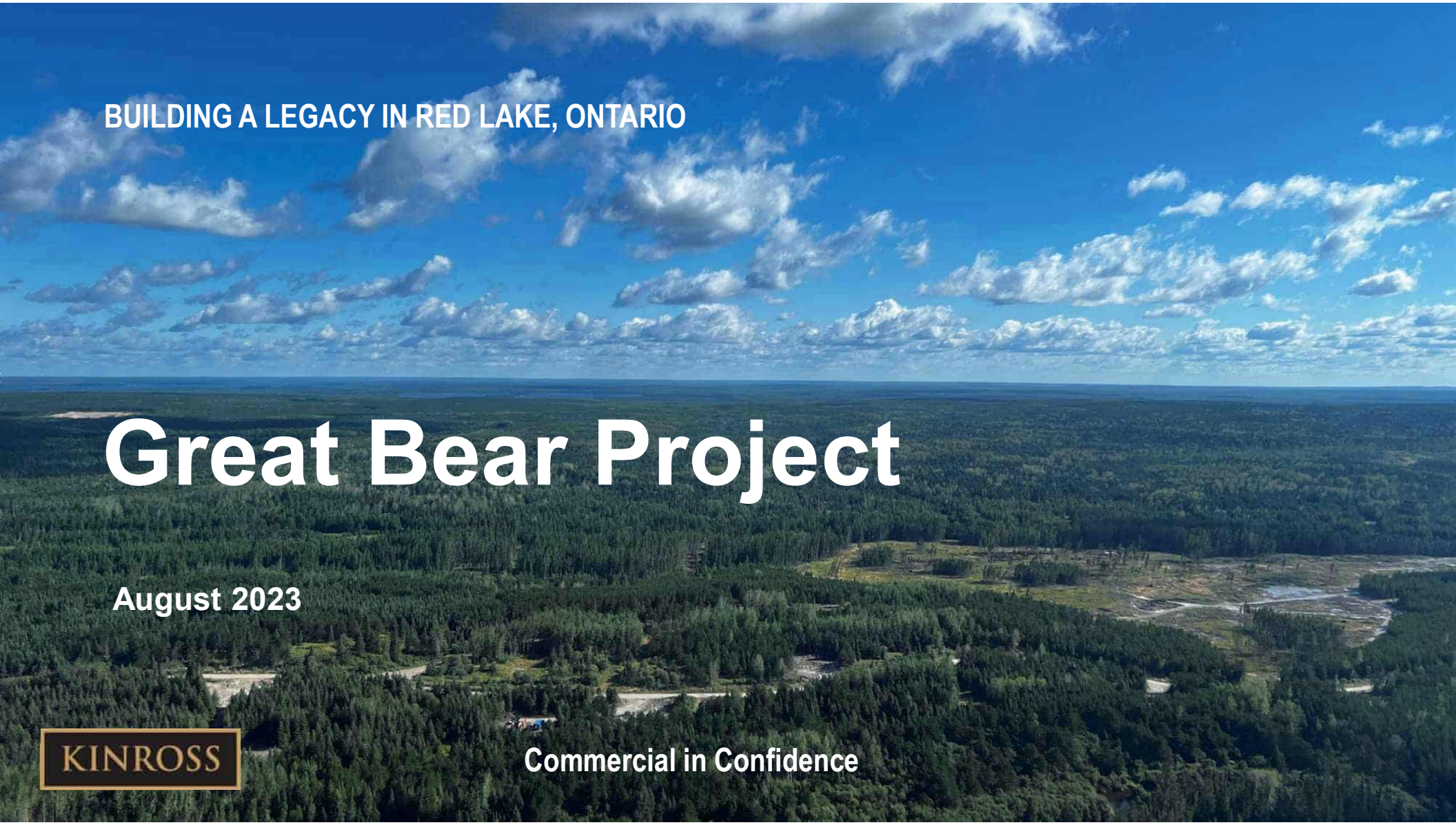
- Upgrade and reconductor existing E2R and E4D circuits (Dryden to Ear Falls to Red Lake)
- IESO estimates cost ranging from ~ $125-$175M
- Complex to execute without impacting service to existing customers
- Third party line constructor (Cormorant) indicated that basic refurbishment may meet our needs

Option 2 (New Line): *115 kV or 230 kV*

- New line (165 km long) from Dryden to Red Lake may be required to meet the full potential growth in the region, with a potential cost of ~$250 million

KINROSS

KINROSS



BUILDING A LEGACY IN RED LAKE, ONTARIO

Great Bear Project

August 2023

KINROSS

Commercial in Confidence

Key Messages

- **Kinross is a major Canadian gold mining company**
  - Top tier Environmental, Social and Governance performance and a track record of delivering projects
- **This mine will be built**
  - There is no question that the Great Bear project near Red Lake Ontario will be a multi-generational mine.
  - The Great Bear project enjoys strong support from Wabauskang and Lac Seul First Nations (incl. interest in power partnership)
- **Permitting and Power are the critical success factors**
  - The critical success factors to be able to commence production in 2029 are permitting and power.
  - We have commenced the federal and provincial permitting processes
- **Current power supply to the area is insufficient to meet the project's needs**
  - Approximately 50 mw of peak power demand expected
  - Kinross seeking to maximise electrification of this "mine of the future"
- **Government support is requested to ensure affordable power is available by Q4 2028**
  - Help accelerate the timeline for IESO, HONI, OEB grid connection processes
  - Existing grid is over 75 years old and requires refurbishments. Is there support options for a cost sharing solution?

KINROSS

FOR DISCUSSION PURPOSES ONLY- PRIVILEGED & CONFIDENTIAL

We are proud to be working
in the traditional territory of the collective members
of the Anishinaabe Nation in Treaty #3

We recognize and respect
the inherent and treaty rights of our partners
in the Wabauskang and Lac Seul First Nations

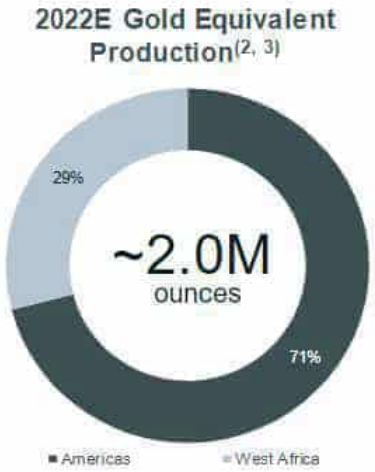
We are committed to meaningful dialogue
with our partner First Nations and strive for
continued improvement in all that we do

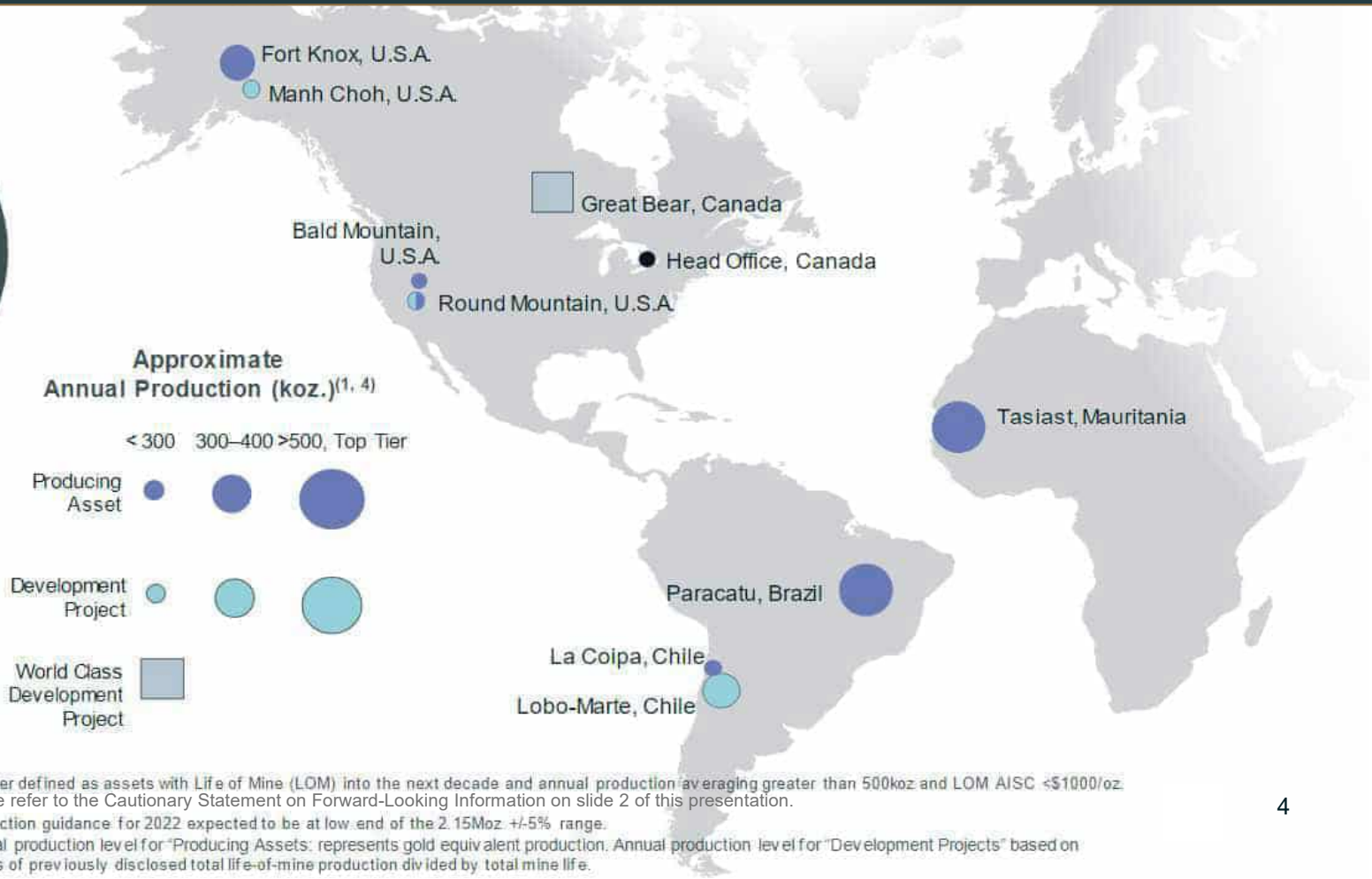
WABAUSKANG FIRST NATION

KINROSS
Great Bear Project

LAC SEUL FIRST NATION

Large, Americas-Focused Gold Producer

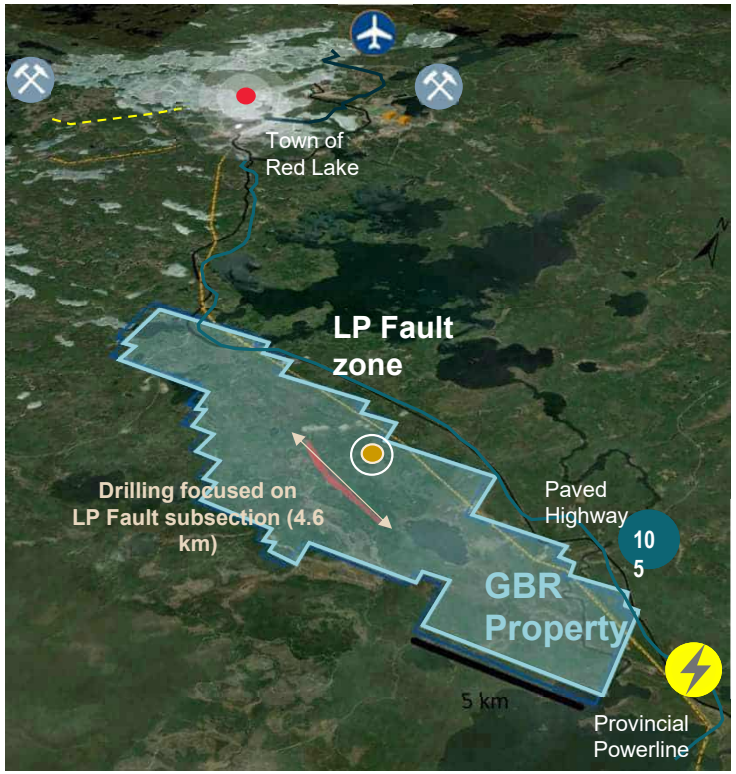


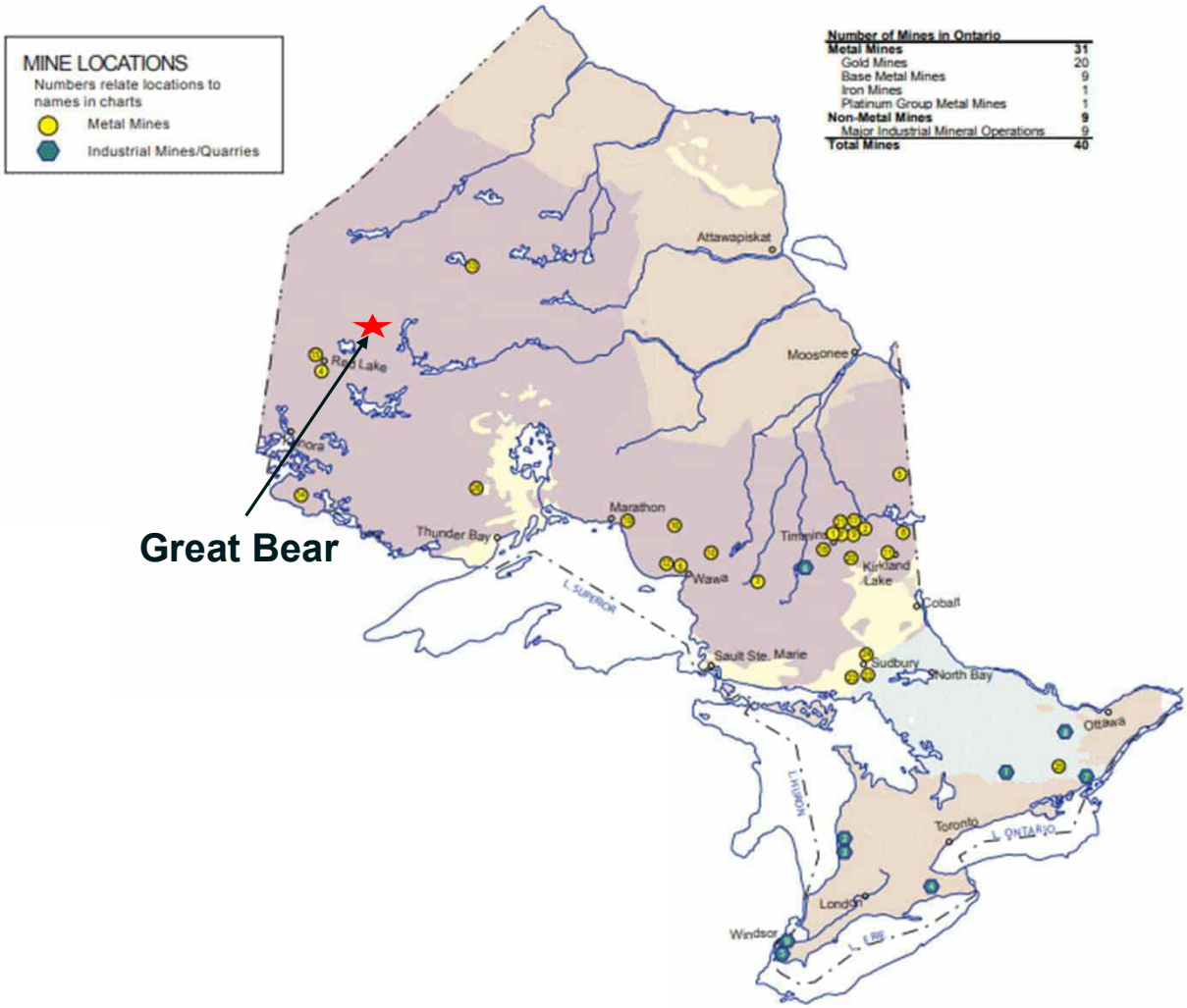


KINROSS

(1) Top tier defined as assets with Life of Mine (LOM) into the next decade and annual production averaging greater than 500koz and LOM AISC <$1000/oz.
(2)Please refer to the Cautionary Statement on Forward-Looking Information on slide 2 of this presentation.
(3) Production guidance for 2022 expected to be at low end of the 2.15Moz +/-5% range.
(4) Annual production level for "Producing Assets: represents gold equivalent production. Annual production level for "Development Projects" based on estimates of previously disclosed total life-of-mine production divided by total mine life.

Great Bear Project Location





KINROSS

Putting People First in Community Engagement

We are working to be best practice partners with First Nations through regular communication, active listening and responding to community needs

2022 Engagement

- **Focused on maintaining meaningful dialogue** in smooth transitioning of First Nations partner relationship under new Kinross project management.
- **Organized and participated in community events**, including an overnight fun fishing derby event focused on developing trust and understanding in community relations between Kinross and Lac Seul and Wabauskang First Nations leadership.
- **Organized and funded capacity training** and certification for four Environmental Monitors from Wabauskang and Lac Seul FN communities.
- **Opened talks toward an updated Partner Agreement** to consider Advanced Exploration work.

FOR DISCUSSION PURPOSES ONLY- PRIVILEGED & CONFIDENTIAL

What Will Great Bear Mine Look Like

OP & UG Mine
Estimated production of ~300 – 500 koz per Year:

Strong Partnerships
With our First Nations and local communities in and around Red Lake, Ontario

Low Emissions Mine
Via electrification and clean Ontario grid power

Local Employment
700 – 1,000 potential jobs created

Best in Class Mine
Driven by workforce skill, design, efficiency and automation

Creating a Lasting Legacy in Red Lake, Ontario

KINROSS

Great Bear is Ontario's next flagship gold mine Kinross is investing heavily to get there

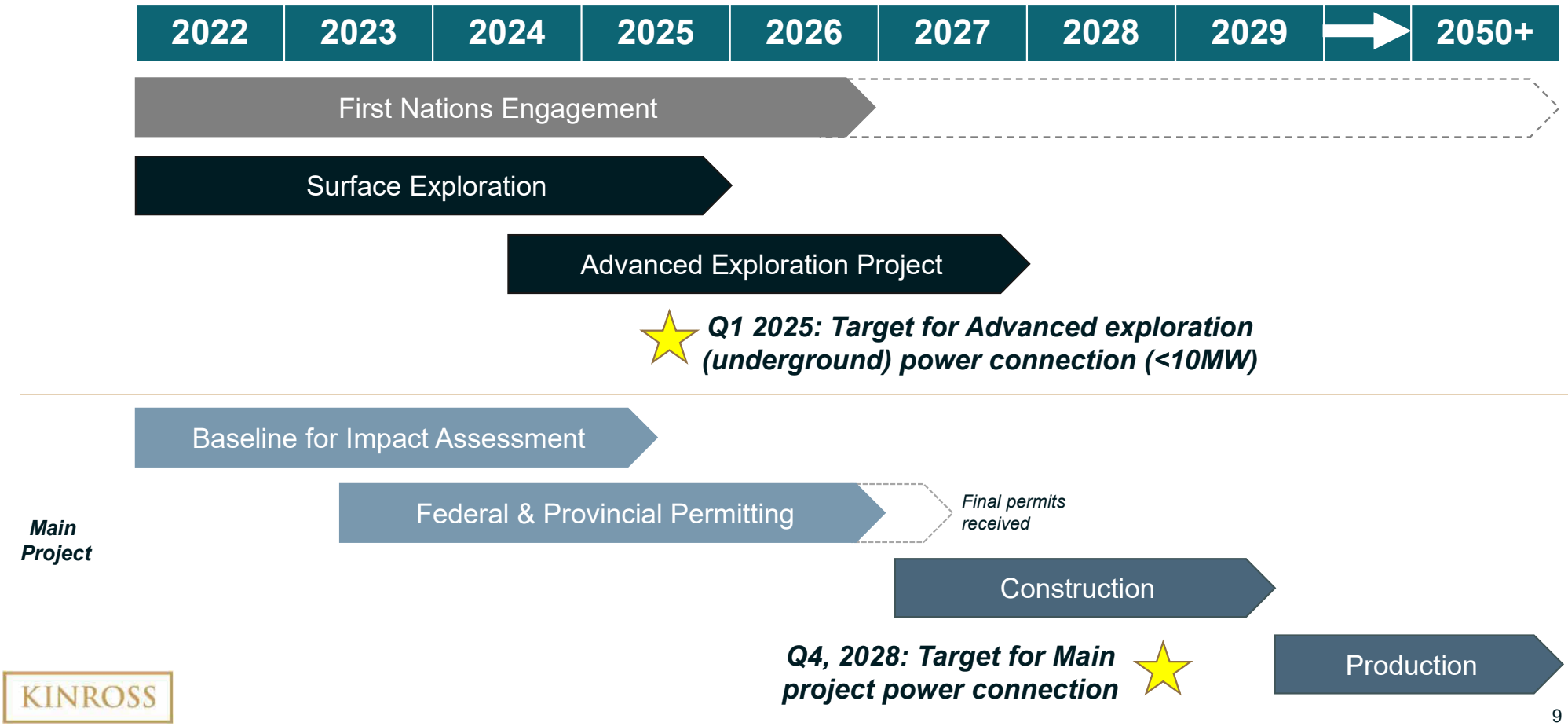
	Since Great Bear acquisition by Kinross in 2022 for CAD$1.9B we have…	By the time we get to targeted first production in 2029 we should have…
Exploration	drilled >225,000 meters	Drilled >500,000 meters on property & Advanced Exploration project
Capital & Exploration Spend	Invested > CAD$80M on exploration, baseline and technical studies	Invested an additional ~CAD$1.0-1.3B [1] Targeting ~300–500 koz gold production/year
Employment	~50 Kinross Employees >100 Contractors	Created 700–1,000 jobs in both the underground and open pit
Mineral Resources	Reported an Initial gold resource of 2.7 Moz of Indicated and 2.3 Moz of Inferred[2]	Built an initial open pit and underground operation with longer-term underground potential at depth

Our Internal Scoping Study shows over CAD$650M in Provincial and Ontario Mining Taxes over the next 20 years at $1,800 gold[3]

KINROSS

[1] Capital spending assumes both the Advanced Exploration (AEX) program and main project and is in Canadian Dollars. FX rate for CAD / USD is assumed at 1.30.
[2] Please refer to Kinross' external press release in early 2023 outlining Great Bear's 43-101 technical report and resource.
[3] This current estimate assumes full production, based on preliminary scoping studies and is subject to change.

Targeting mid-2024 for start of Advanced Exploration and 2029 for first production



Great Bear is targeting to be a low GHG mine

Low GHG Ontario Grid + ***Electrification and Decarbonization*** = ***Low Carbon intensity mine***

Process underway with IESO and Hydro One to study upgrading the existing line or building new

Goal: Operate a low-emissions mine that leverages clean power.

Concepts in study: all-electric UG, materials handling, OP electric

Great Bear expected GHG intensity of ~200 to 300 kgCO2 per equivalent ounce, in the lowest quartile of mining projects

*Photo of Sandvik battery electric underground equipment**

*Photo of Epiroc electric surface drill**

COMMITTED TO RESPONSIBLE MINING

- **Consistent leader** in ESG performance by key rating agencies
- Committed to **30% reduction** in GHG intensity by 2030

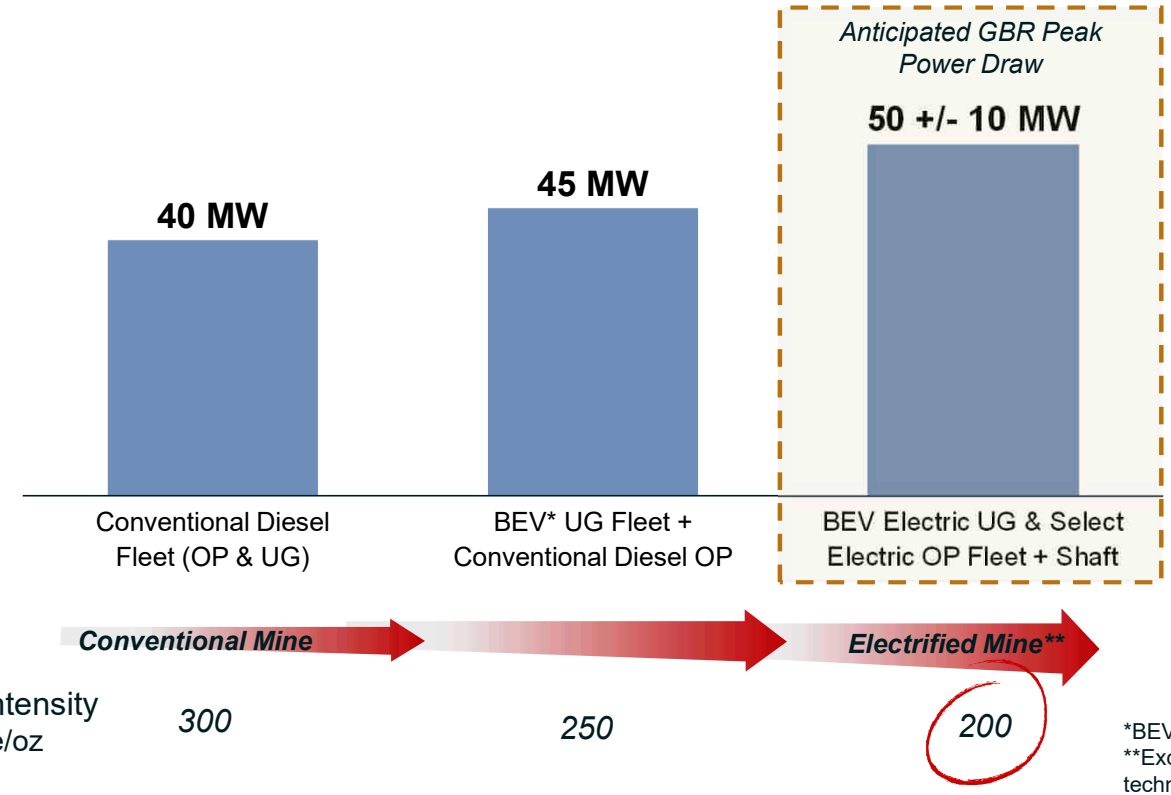
KINROSS

These are example pieces of equipment although several vendors have electric equipment. Mine plan optimization and equipment selection is ongoing as a part of engineering studies.

Ontario's Clean Grid & Electric Vehicles: Lower Costs & Reduced Emissions

Potential Power Requirement Scenarios for 10ktpd operation (MW)

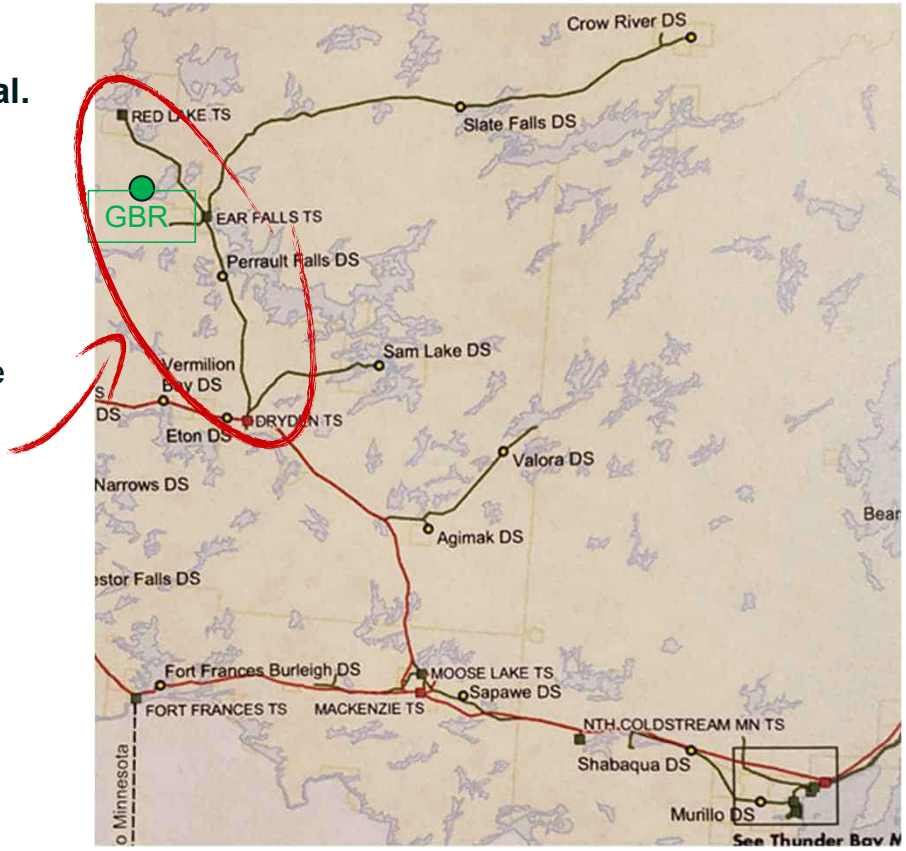
Increasing Power Demand reduces GHG intensity



*BEV= Battery Electric Vehicle
**Excludes electrification of OP haul trucks as technology not expected to be ready by 2030

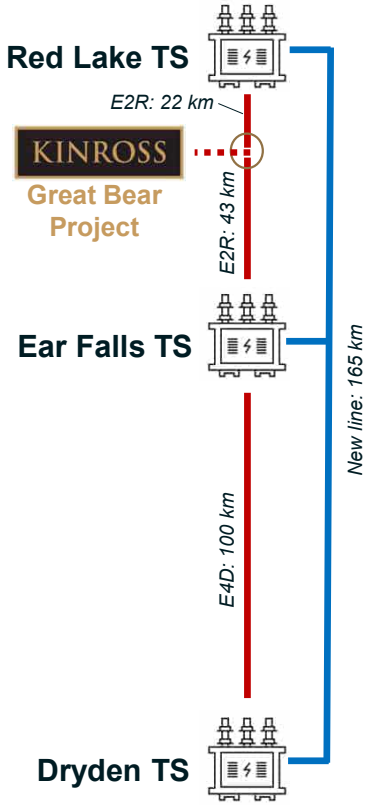
Power Capacity, Access & Timeline Concerns

- **We need sufficient, affordable grid power to reach full potential.**
- **Great Bear will need ~25MW by Q4-2028**, initially for commissioning and then grow to **~50 MW** as production ramps up.
- We have a corporate commitment to reduce our GHG emissions intensity by 30% by the year 2030 .
  - Planning to electrify the underground mine and portions of the open pit to achieve these targets.
- **The existing 115 kV lines (~75 Years old) between Red Lake to Ear Falls, and Ear Falls to Dryden, and related substations are the primary constraints.**
- Preliminary Hydro One and IESO studies indicate existing lines **unable to provide >10-15 MW** without significant investment.



KINROSS

Grid Connection Scenarios



Existing line

New line

Scenarios 1A and 1B (Upgrades to existing 115kV line): *May meet our needs*

1A. Basic refurbishment: Visual inspection by third party line constructor (Cormorant) indicated that refurbishing poles and substations only may meet our needs

1B. Extensive refurbishment: Upgrade and reconductor existing E2R and E4D circuits (Dryden to Ear Falls to Red Lake)

- Hydro One cost estimates ranging from ~ $125-$175M

Scenario 2 (New Line): *115 kV or 230 kV*

2. New line (165 km long) from Dryden to Red Lake may be required to meet the full potential growth in the region, with a potential cost of ~$250 million+
   - Potential longer timeline to completion

Kinross is very keen to work with all power stakeholders to find solutions

KINROSS

Summary of how the Government could help

Working together to responsibly develop Northern Ontario and build mines faster

- **Can the Ministry help to accelerate the timeline for IESO, HONI, OEB grid connection processes?** Time is a critical factor for the project.
  - With other transmission and generation projects in the province, First Nations involvement, complexities of studies and permitting, we are **concerned the timelines will be stretched**.

- **Is the Government willing to prioritize NW Ontario for "bulk network reinforcements" through line upgrades, with shared allocation of costs?** GBR should not have to bear the full cost given the wider benefit.
  - The existing grid in the area is old (75 years) and **requires refurbishments in the foreseeable future**, regardless of our project – can this be factored in to a cost sharing solution?

KINROSS

Kinross Energy Engagements to date

- Topic raised with **Minister of Mines Pirie** and senior staff.
- Met with **Minister Todd Smith and team** in May, where they were receptive to our concerns and directed us to engage with Minister Fedeli to discuss funding opportunities:
  - A staff level meeting with Minister Fedeli's team is expected shortly.
- Kinross CEO, Paul Rollinson met with **Hydro One CEO, David Lebeter, and IESO CEO, Lesley Gallinger** to raise awareness for the Great Bear Project and its energy needs
- Upcoming meeting with **Deputy Minister Jason Fitzsimmons** on August 3rd.
- Ongoing Joint co-ordination meeting between Kinross and **Director level representatives from Hydro One and IESO** (Spencer Gill and Ahmed Maria).

KINROSS

FOR DISCUSSION PURPOSES ONLY- PRIVILEGED & CONFIDENTIAL

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600-55, rue York
Toronto (Ontario) M5J 1R7

August 17, 2023 **Sent via email**

Aaron MacDonell, Director
Environmental Services
Kinross Gold Corporation
25 York Street, Suite 15th Floor
Toronto Ontario M5J 2V5
aaron.macdonell@kinross.com

Dear Aaron MacDonell:

Re: Initial Project Description for the Great Bear Gold Project by Kinross Gold Corporation

On August 4, 2023, the Impact Assessment Agency of Canada (the Agency) received an Initial Project Description for the Great Bear Gold Project (the Project) from Kinross Gold Corporation. The Agency has determined that the Project meets the definition of a designated project under the *Impact Assessment Act* (the IAA) and that the Initial Project Description meets the requirements of Schedule 1 to the *Information and Management of Time Limits Regulations.*

The Agency will commence the planning phase for the Project on August 17, 2023 and conduct a public comment period from August 17, 2023 to September 18, 2023, to provide an opportunity for Indigenous communities, the public, provincial ministries, municipalities and federal authorities to identify issues in relation to the Project that may be of relevance or concern. All submissions received during the comment period will be posted on the Agency's Registry page for the Project.

The Agency will aim to provide you with a document that summarizes the issues raised in conjunction with the information presented in the Initial Project Description, within two weeks of the close of the public comment period. The Summary of Issues document will also be posted on the Registry.

…/2

As part of the Detailed Project Description, you will be required to provide a response to each of the issues explaining how you intend to address them. The Summary of Issues and your responses in the Detailed Project Description will be used to inform the Agency's decision on whether to require an impact assessment for the Project, along with consideration of the other factors outlined in subsection 16(2) of the IAA. They will also inform the development of the Tailored Impact Statement Guidelines should the Agency decide that an impact assessment is required.

For further information, please see the *Guide to Preparing an Initial Project Description and a Detailed Project Description*[1] on the Agency's website.

Should you have any questions, do not hesitate to contact me at 647-616-2471 or by email at *GreatBear@iaac-aeic.gc.ca*.

Sincerely,

NBoyd

Natalie Boyd
Project Manager

Cc: Luke Jalsevac, Kinross Gold Corporation
Sheila Daniel, WSP Canada Limited

[1] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guide-preparing-project-description-detailed-project-description.html*

Impact Assessment Agency of Canada
Agence d'évaluation d'impact du Canada

Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600-55 rue York
Toronto ON M5J 1R7

August 17, 2023 **Sent by email**

Councillor Theresa Stenlund
Métis Nation of Ontario, Region 1
621 Lakeview Drive – Unit 4
Kenora ON P9N 3P6
theresas2@metisnation.org; *consultations@metisnation.org*

Dear Councillor Theresa Stenlund:

Subject: Great Bear Gold Project – Invitation to Participate in the Review of the Initial Project Description – Request for Comments due September 18, 2023

I am writing to notify the Métis Nation of Ontario that on August 17, 2023, the Impact Assessment Agency of Canada (the Agency) accepted an Initial Project Description for the proposed Great Bear Gold Project (the Project), as proposed by Great Bear Resources Limited, a wholly owned subsidiary of Kinross Gold Corporation (the Proponent).

The Agency has determined that the Initial Project Description for the Project meets the requirements of the *Information and Management of Time Limits Regulations* under the *Impact Assessment Act* (IAA). The Agency has posted a Summary of the Initial Project Description to the Canadian Impact Assessment Registry internet site[1], starting the 180-day planning phase of the impact assessment.

The Proposed Project
Great Bear Resources Limited, a wholly owned subsidiary of Kinross Gold Corporation, is proposing the construction, operation, decommissioning, and abandonment of a new open-pit and underground gold mine with an on-site metal mill, located 23 kilometres southeast of Red Lake, Ontario. As proposed, the Great Bear Gold Project would include three open-pits and produce up to 60,000 tonnes of ore per day, while the metal mill would process up to 15,000 tonnes of ore per day. The Project would operate for about 20 years.

As part of the planning phase for the Project, the Agency is initiating consultation activities with Indigenous communities and engaging the public and other participants. A comment period on the Initial Project Description is taking place from **August 17, 2023 to September 18, 2023**.

[1] Reference #85832 at *https://iaac-aeic.gc.ca/050/evaluations/proj/85832*

The purpose of this letter is to:

(1) invite your community to provide comments by September 15, 2023 on the potential effects of the Project, and how you wish to be consulted and engaged during the impact assessment process;
(2) offer an initial grant of $5,000 to support your community's review of the Proponent's Summary of the Initial Project Description; and
(3) provide information on the next steps of the impact assessment process and future grant funding opportunities.

Request for Comments by September 18, 2023

The Agency is seeking your views on the following matters:

- Any environmental effects and impacts of the Project that are of concern to your community, including any anticipated effects and impacts that are not listed in the Summary of the Initial Project Description.
- How the Project and associated effects could result in positive or negative changes to your community:
    - health conditions (e.g. country foods, drinking water, air quality);
    - social and economic conditions (e.g. economic development, access to jobs, access to resources);
    - physical and cultural heritage (e.g. ceremonial sites, burial sites, cultural landscapes);
    - current use of lands and resources for traditional purposes (e.g. harvesting, hunting, fishing, and trapping); and
    - structures, sites, or things of historical, archaeological, paleontological or architectural significance (e.g. artifacts, important historical buildings or symbols).
- Any potential impacts on your community's exercise of Aboriginal rights as protected under section 35 of the *Constitution Act, 1982*
- Preferences and expectations of both Agency consultation activities and Proponent engagement activities in relation to the Project.

A map of the Project from the Initial Project Description (Enclosure 1) is attached to this letter to help you identify any potential impacts that are relative to the location of the Project. A comment form (Enclosure 2) is also attached to this letter to assist in responding to the questions above, or you may reply in a format of your choice.

We respectfully request this information be provided by September 18, 2023.

If we do not hear from Métis Nation of Ontario by this time, then the Agency will assume you are not interested in participating in the process. The Agency may not include your community for future steps should the Agency determine than an impact assessment is required for this Project. More information on the impact assessment process timelines and outputs can be found in Enclosure 3.

How to submit your comments
Comments, including letters and forms, on the Project can be provided to the Agency via the *Submit a Comment* feature available on the Project's Registry page[2]. If you have any questions or difficulties, please notify the Agency contact for assistance.

Confidentiality
Information submitted to the Agency to inform this project assessment process may be posted online to the Canadian Impact Assessment Registry (Reference #85832), subject to certain exceptions related to privacy, security, or confidentiality. The Agency's Submission Policy[3] describes what submitted information can be shared publicly, and what should remain private. For more information on how we protect your privacy, please refer to the Privacy Notice.[4]

Indigenous knowledge shared in confidence is protected from disclosure under section 119 of the IAA, except if written consent is provided, or if the information is publicly available. In addition, Indigenous Knowledge shared in confidence could be shared with certain parties if disclosure is necessary for procedural fairness and natural justice or for use in legal proceedings. This ensures that interested persons have a fair opportunity to participate in processes that would likely affect their interests, and that they have access to all necessary information and evidence relied on by the decision-maker.

Should you wish to provide any comments or documents that contain confidential or sensitive information that should be protected from release to the public, please contact Brooke Ellison-Wareing by telephone at 416-528-2458 or email at *GreatBear@iaac-aeic.gc.ca* before submitting the information. This will ensure that your submission is handled appropriately. Regarding the exceptions above, the Agency will consult with you prior to disclosing Indigenous knowledge shared in confidence.

.../4

[2] Reference #85832 at *https://iaac-aeic.gc.ca/050/evaluations/proj/85832*
[3] *https://iaac-aeic.gc.ca/050/evaluations/participation/conditions*
[4] *https://iaac-aeic.gc.ca/050/evaluations/protection*

Participant Funding Grants
To support your community's participation in the planning phase, the Agency is able to offer limited grant funding.

An overview of eligible activities and expenses is enclosed (Enclosure 3). Upon confirmation of your community's interest, funding will be distributed at two points during the planning phase of the impact assessment process:

- An initial grant of **$5,000.00** would be offered when the Agency has accepted an Initial Project Description from the proponent, upon which your community will be invited to provide comments.
- A second grant of **$5,000.00** would be offered to support your community's involvement in the development of the Tailored Impact Statement Guidelines and the detailed planning documents, if the Agency determines that a federal impact assessment is required for the Project.

If a federal impact assessment is required, the Agency will offer additional funding to support the continued participation of Métis Nation of Ontario throughout subsequent phases of the process. More information on the impact assessment process timelines and outputs can be found in Enclosure 4, and more information on the Agency's funding programs and the federal impact assessment process can be accessed on the Agency's website[5].

If you have any questions about this funding, please contact Victor Fossoh, Senior Funding Officer at *Victor.Fossoh@iaac-aeic.gc.ca*.

Next Steps
Comments received by **September 18, 2023**, will inform the development of a Summary of Issues prepared by the Agency, which will include the issues raised by Indigenous communities and other participants. The Agency will provide the Summary of Issues to the Proponent and post a copy to the Registry.

The Proponent will be required to submit a Detailed Project Description and Response to the Summary of Issues, to the Agency. The Proponent's documents and input from Indigenous communities and other participants during the comment period will be considered by the Agency in its decision on whether to require a federal impact assessment for the Project.

.../5

[5] *https://www.canada.ca/en/impact-assessment-agency/services/public-participation/funding-programs/participant-funding-program.html*

If a federal impact assessment is required, the Agency will lead consultation efforts on behalf of the Government of Canada, to foster a meaningful and responsive two-way dialogue with the Métis Nation of Ontario in respect of the Project and any potential impacts it may have on the exercise of Aboriginal rights.

Contacting the Proponent
Proponents of designated projects are strongly encouraged to engage with Indigenous communities early in the design of a proposed project to benefit all concerned. By learning about the interests and concerns of potentially affected Indigenous communities, and identifying ways to avoid or mitigate potential impacts, proponents can build these considerations into their project design.

The Agency understands that the Proponent has reached out to your community. The Proponent is expected to include in its Initial Project Description a preliminary description of the potential adverse effects of the Project on Indigenous peoples. If your community would like to contact the Proponent directly, the principal contact person for the purpose of developing the Initial Project Description is Aaron MacDonnell, Director, Environmental Services at Kinross Gold Corp. Aaron can be contacted at *aaron.macdonell@kinross.com*.

Contacting the Agency
Brooke Ellison-Wareing will be the Crown Consultation Coordinator for the Project on behalf of the Agency. Brooke will be following up with you within the next two weeks to confirm your receipt of this letter, and to discuss your interest in a meeting on the Project during the ongoing comment period. In the meantime, if you have any questions you may contact Brooke by telephone at 416-528-2458 or email at *GreatBear@iaac-aeic.gc.ca.*

The Agency requests your comments on the Initial Project Description by **September 18, 2023**.

Sincerely,

Sen, Amy

Digitally signed by: Sen, Amy
DN: CN = Sen, Amy C = CA
O = GC OU = EC-EC
Date: 2023.08.17 10:39:42 -04'00'

Amy Sen
Acting Director, Ontario Region

Enclosures:

#1 – Project Location Map
#2 – Comment Form: Information to Inform the Summary of Issues
#3 – Overview of Eligible Expenses and Activities
#4 – Impact Assessment Process Timelines and Outputs

c.c.: Victor Fossoh, Impact Assessment Agency of Canada
Aaron MacDonnell, Kinross Gold Corporation
Linda Norheim, Métis Nation of Ontario
Bonnie Bartlett, Métis Nation of Ontario
David Schram, Métis Nation of Ontario
Michelle Correa, Métis Nation of Ontario

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

Chief and Council
General Delivery c/o Asubpeeschoseewagong Netum Anishinabek Band Office
Grassy Narrows, ON
P0X 1B0
Attention: Chief Rudy Turtle

Dear Chief Turtle,

We would like to extend our gratitude to Asubpeeschoseewagong Netum Anishinabek for the contributions during the recent meeting held on June 22, 2023. Your engagement at the meeting is very much appreciated.

As you are aware, we have established a SharePoint documentation access portal. This platform not only facilitates the progression and evaluation of advanced exploration activities but also signifies the initiation of the federal approvals process. We see this as a continuing dynamic resource to facilitate and inform dialogue moving forward.

As noted in the June meeting, our goal is to foster open and productive discussions regarding our Project. To this end, we would like to restate our offer to discuss capacity funding to be provided by Kinross to Asubpeeschoseewagong Netum Anishinabek to facilitate technical review of environmental and regulatory documents related to the Great Bear Gold Advanced Exploration Permitting and Main Mine Project Impact Assessment, and community well-being initiatives. As a responsible entity, we fully acknowledge concerns about the importance of protecting water quality within the context of regional development.

We are committed to a robust mitigation, policy, and protection measures designed not only to meet regulatory standards but to also ensure the ongoing safeguarding of water resources. This commitment underscores our firm dedication to this vital principle.

Kinross and the Great Bear team are enthusiastic about progressing further and engaging in meaningful conversations with your Community. We are eager to identify potential synergies between the community's interests and the objectives of the Great Bear Project. Through this collaborative approach, we aim to create a positive and mutually beneficial impact.

We extend our gratitude for your continued engagement and support.

Regards,

Mac Potter
External Relations Manager
Great Bear Resources Ltd., *A Kinross Gold Company*

cc.

Aaron MacDonell, Director, Environmental Services, Great Bear Resources Ltd., *A Kinross Company*
Ian Russell, Site Manager, Great Bear Resources Ltd., *A Kinross Company*
Neal Bennett, Regional Manager (Acting), Ministry of Mines
Anjala Puvananathan, Director, Ontario Region, Impact Assessment Agency of Canada
Sherry Ackabee, Asubpeeschoseewagong Netum Anishinabek
Little Bear Copenace, Asubpeeschoseewagong Netum Anishinabek
John Kokopenace, Asubpeeschoseewagong Netum Anishinabek
Arnold Pahpasay, Asubpeeschoseewagong Netum Anishinabek
Robert Williamson, Asubpeeschoseewagong Netum Anishinabek
Arthur Anderson, Asubpeeschoseewagong Netum Anishinabek
Jocelyn Pelly, Asubpeeschoseewagong Netum Anishinabek

DocuSign Envelope ID: 4C667998-6F66-4F54-BCC6-29D671324EA1

WABAUSKANG FIRST NATION
P.O. Box 339, Ear Falls, ON P0V 1T0

LAC SEUL FIRST NATION
P.O. Box 100, Hudson, ON P0V 1X0

September 15, 2023

Amy Sen
Acting Director
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, ON
M5J 1R7

Delivered Via Email

RE: Great Bear Gold Project – Invitation to Participate

Dear Ms. Sen,

We would like to bring to your attention our concerns regarding the approach taken by the Impact Assessment Agency of Canada (IAAC) to engage with our First Nations regarding the Great Bear Gold Project. As the federal agency tasked with meeting the Crown's obligations related to this project, we expect the IAAC to take the time needed at the outset of this process to become familiar with our communities, our consultation protocols, and our employees who are responsible for the engagement with our First Nations on mining files. This initial understanding of our First Nations is critical to ensure the protection of community values and mitigation of any impacts to the environment and/or the Rights of our members. To date, we have received correspondence from your Agency that demonstrates a complete lack of understanding of and respect for our First Nations' consultation protocols. This has included demands and timelines from your Agency that our First Nations would never tolerate from mining companies operating in our territory, let alone a federal agency who should be conducting itself in a much more respectful and culturally appropriate manner than what has been observed to date.

On August 17th, letters were sent to our respective First Nations with notification of the invitation to participate in the review of the Initial Project Description. While we appreciate and welcome this opportunity, in the correspondence with both of our First Nations you neglected to bring this to the attention of the appropriate contacts (i.e. Mineral Development Advisors and their supervisors). In addition, this letter does not request input into the time required for our First Nations to review the Initial Project Description or the funding required to conduct this important work, instead dictating the limits for both

DocuSign Envelope ID: 4C667998-6F66-4F54-BCC6-29D671324EA1

aspects of the review. This letter was followed up with calls to our band offices from a member of your staff during the week of September 4th, with band office staff feeling that they were bullied with threats of your self-imposed deadlines and demands to speak with members of Chief and Council, again demonstrating a complete lack of understanding of the proper protocols and processes for engaging with our First Nations.

As you should be aware, our First Nations recently signed an Advanced Exploration Agreement with Kinross Gold Corporation. We value the relationship that our First Nations have with Kinross and have a positive working relationship with Kinross, including ongoing discussions with our staff; regular site visits and tours; and community engagement sessions which included a presentation from Kinross on the project for both of our communities just this past week. However, if the Great Bear Project is to proceed we need to ensure that the environment and the Rights of our members are protected and view a federal Impact Assessment as an important part of this process. We are hopeful that your Agency will play an important role in moving this project forward and that the IAAC actions to date are not representative of the approach that will be taken in the future.

To help get this process back on track, we are requesting that you and your staff set up a meeting with our Mineral Development Advisors (reggie@obaushkongaki.com, rodbacon@lacseulfn.org), their supervisors, our legal counsel, and our technical team to discuss the consultation protocols, timelines, and funding needs of our First Nations so that we can review the Initial Project Description and provide comments. We are requesting that this meeting will take place in-person in Red Lake as it is important to our Nations that anyone involved in this project is familiar with our staff, our shared traditional territories, and the proposed Great Bear project site to ensure an understanding of the context for the project and reduce the likelihood of future missteps. Again, we are optimistic that this meeting will be the start of a positive working relationship between our Nations and the IAAC moving forward.

Miigwetch,

Bill Petiquan

Chief Bill Petiquan
Wabauskang First Nation

Chief Clifford Bull

Chief Clifford Bull
Obishikokaang/Lac Seul First Nation

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

September 20, 2023

Attention: Anjala Puvananathan (Director, Ontario Region)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario M5J 1R7

Boozhoo Anjala Puvananathan,

RE: Great Bear Gold Project

Thank you for responding to the letter from Chief Turtle.

As the Grassy Narrows Lands Team Lead, engaging with officials and proponents about mining proposals has been delegated to me.

Grassy Narrows remains deeply concerned about this project and about the IAAC's process to date.

According to the attached document summarizing the impact assessment process, the process begins with Phase 0 (Pre-Planning), a phase that requires engagement by both the Proponent and the Agency with Indigenous groups. None of the require pre-planning steps have been complied with:

- The Proponent was required to engage Grassy Narrows to present the project, learn Grassy Narrows' views, including potential effects and how we wish to be engaged and to incorporate this information into the Initial Project Description. Grassy Narrows has expressed, both in writing and in a meeting on June 22, 2023 with representatives from Kinross, our significant concerns about potential impacts upon our community, which are not reflected in the Initial Project Description. Grassy Narrows also provided Kinross with our communications protocol, which includes communication with the Lands Protection Team. That protocol was not included in the Initial Project Description.

- The Agency was aware, based on the Initial Project Description, that Grassy Narrows may be affected by the project. In the pre-planning phase, the Agency was required to inform Grassy Narrows about the impact assessment process to support us in understanding how we can participate. The Agency was obligated to learn Grassy Narrows' views and context, including potential effects and how

> we wish to be engaged. The Agency did not comply with these requirements of the pre-planning stage.

Even Indigenous Services Canada flagged concern about Kinross's level of engagement to date with Grassy Narrows in its comment to the Agency:

> The perception of contamination to the land, water, traditional food sources and Indigenous Peoples by industrial development may be a serious concern for the identified Indigenous Nations, especially for Grassy Narrows ... During the late 1990s and early 1970s, the English-Wabigoon River system was contaminated with inorganic mercury from a pulp mill located upstream in Dryden, Ontario. This discharge of inorganic mercury contaminated their water and traditional food sources (i.e. fish) and lead to cases of mercury poisoning and intergenerational challenges. The proponent, Kinross Gold Corporation, started engaging with Grassy Narrows First Nation in 2022, whereas their engagements with Wabuskang First Nation and Lac Seul First Nation began in 2017. Due to Grassy Narrows First Nation's negative and detrimental experience with industrial development, it is recommended that more engagement take place. The Indigenous Nations need to gain a greater understanding of the contaminants that may be released into the environment. They should be provided an opportunity to express concerns or uncertainties about potential exposure to chemicals used in the gold mining process, such as cyanide and heavy metals.[1]

We strongly disagree that Kinross's communications with Grassy Narrows to date can be characterized as engagement. The failures of both the proponent and IAAC to comply with their obligations in the pre-planning phase affects all subsequent steps.

As a result of the failed pre-planning process, the Agency did not comply with our communications protocol and the Agency's initial communications failed to reach us. Furthermore, the Agency's engagement approach was not customized to our unique laws, government and circumstances. Our community is bearing the weight of many decades of harms arising from colonialism, loss of land, residential schools, forced relocation, and industrial activity including dumping of mercury into our river system causing an ongoing mercury poisoning crisis in our community. Grassy Narrows is not in a position to respond to an engagement process that does not take that context into account both in setting reasonable timelines for response and in providing capacity supports to review and respond to highly technical information.

Instead, the IAAC has treated us much in the same way that you would deal with a snowmobile club, a cottage association, or a distant advocacy group. In doing so, you have insulted us before even starting to build a relationship, and you have set us at an unfair disadvantage in decisions that will forever impact our First Nation.

[1] Indigenous Services Canada, Federal Authority Advice Record – Great Bear Gold Project, p. 5.

In response to our request that you address these issues, the Agency offered to extend the deadline for comment by one week. The extension gives Grassy Narrows 12 days from the date we learned about the review to obtain sufficient capacity support, retain the relevant expertise, review a 100 page technical document touching on many fields of knowledge, engage our community, carry out our governance process, prepare a response, and send it to you. This is not reasonable.

Nor is it reasonable to offer $5,000 in capacity support less than two weeks before the extended deadline. Grassy Narrows is a semi-remote community in the midst of an ongoing mercury crisis.

The Agency's response adds insult to injury and betrays a lack of willingness to meaningfully accommodate and to respect our nation, our government, and our circumstance.

I ask you to reconsider your decision, and to agree to the required actions that our Chief set out in his letter. This is an opportunity to set this assessment back on an even keel rather than launching it in a flawed way that will prejudice the rest of the process to come.

Our Lands Team will meet with you to discuss your written responses to our questions above, and to discuss a mutually agreeable path forward. Please provide some suggested times for such a meeting. Our Lands Team has prior commitments and will be travelling extensively in September. Our next availability is in the week of October 2nd.

In the meantime, we have a number of questions about the process so far, which are set out as Appendix A to this letter. Please provide the answers in writing as soon as possible.

Sincerely,

Joseph Fobister

Lands Team Lead

Cc:

Chief Rudy Turtle (rudyturtle@outlook.com)

Mike Fobister, Land Protection Team Coordinator (mike.fobister@googlemail.com)

Jackie Esmonde, Land Protection Team Legal Counsel (jesmonde@cavalluzzo.com)

Dan Mossip-Balk-Balkwill Land Protection Team Advisor (dan.mossip.balkwill@gmail.com)

David Sone Land Protection Team Advisor (david.sone@gmail.com)

Honourable Minister Steven Guilbeault (ministre-minister@ec.gc.ca) (Minister of Environment and Climate Change)

Honourable Minister George Pirie (minister.mines@ontario.ca) (Minister of Mines - MINES)

Patrick Barnes (patrick.m.barnes@ontario.ca) (MINES Consultation and Aboriginal Treaty Rights Advisor)

Neal Bennett (neal.bennett@ontario.ca) (MINES Acting Regional Manager Thunder Bay Office)

Teri McDonald (teri.mcdonald@ontario.ca) (MINES Indigenous Consultation and Partnerships Branch)

Aaron MacDonnell (aaron.macdonell@kinross.com) (Kinross Director of Environmental Services)

Mac Potter (mac.potter@kinross.com) (Kinross External Relations Manager)

Appendix A

1. How and when did the Agency become aware of Grassy Narrows' interest and concerns with respect to the Great Bear Project?
2. How did the agency select the individuals which you attempted to contact at Grassy Narrows?
3. Why were the Grassy Narrows Land Protection Team, who correspond with the proponent, MINES, ISC, and ECCC about lands matters, and have informed them about Grassy Narrows' communication protocol, not copied on the communication to Grassy Narrows?
4. What communication has the agency had with the proponent, MINES, ISC, CIRR other branches at ECCC, and others about Grassy Narrows?
5. Why did the agency not include Grassy Narrows in the pre-planning phase of the project?
6. Where other First Nations included in the pre-planning phase of this assessment, and if so, why were they included and ANA not included?
7. Why was notice not provided in advance of the start of the Project Description review period so that we could plan for it and secure the necessary expertise and support?
8. How was it determined that 30 days was sufficient time for our First Nation, in our circumstances, to meaningfully review and respond to a 100 page technical project description?
9. Why was capacity funding not offered and provided in advance of the review period so that we could use it to secure capacity for the review to be caried out during the review period?
10. How was it determined that $5,000 was sufficient funding for our First Nation, in our circumstances, to carry out an informed and meaningful review?
11. Have all of the agency staff on this project completed anti-oppression and Indigenous understanding training?
12. Has a Regional EA Process been considered by Canada?
13. Has the proponent requested a provincial EA, and if so, how is that being coordinated with IAAC?
14. Has an independent review panel been considered?
15. Is the IAAC aware of Grassy Narrows' unique circumstances, and what actions is it taking to ensure that this process is carried out in an equitable and fair way in light of those circumstance?
16. How is the IAAC integrating the UN Declaration on the Rights of Indigenous Peoples, the Ipperwash Inquiry report, and the Truth and Reconciliation Commission recommendations into its work?
17. How ill the IAAC take cumulative impacts of past policies and industrial activity, as well as anticipated impacts of other planned regional activities (such as the Goliath gold mine, other mining proposals, forestry, etc.) into account when assessing this project?
18. Will the IAAC respect Grassy Narrows' protocols and laws in your work?

ROLES OF PARTICIPANTS IN CONSULTATION AND ENGAGEMENT DURING THE IMPACT ASSESSMENT PROCESS LED BY THE AGENCY

IMPACT ASSESSMENT PROCESS

Phase 0 – Pre-Planning

Proponent:

- Engages Indigenous groups to present the project
- Learns the views of the groups, including potential effects and how they wish to be engaged, to incorporate them into the **Initial Project Description**

Agency:

- Informs Indigenous groups about the impact assessment process to support them in understanding how they can participate in the process
- Learns the views and contexts of the Indigenous groups, including potential effects and how they wish to be engaged

Indigenous groups:

- Learn about the proponent, proposed project, Agency and impact assessment process
- Share views and values with the proponent and Agency, including potential effects and how they wish to be engaged

Phase 1 – Planning (180 days)

Proponent:

- Engages Indigenous groups to inform the **Detailed Project Description** and responds to issues and concerns identified in the **Summary of Issues**

Agency:

- Seeks input from Indigenous groups on the project, the proponent's **Initial Project Description**, key draft documents for an impact assessment (**Tailored Impact Statement Guidelines**, **Indigenous Engagement and Partnership Plan**), and how they would like to be meaningfully consulted in an impact assessment

Indigenous groups:

- Participate in engagement and consultation activities
- Identify key issues, including potential impacts on rights
- Advise on how they would like to be engaged and provide input and feedback on the **draft Tailored Impact Statement Guidelines** and **draft Indigenous Engagement and Partnership Plan**, if an impact assessment is required

Phase 2 – Impact Statement (up to 3 years)

Proponent:

- Engages Indigenous groups to gather information, identify potential effects and appropriate mitigation, and address concerns
- Prepares the **Impact Statement** based on the **Tailored Impact Statement Guidelines**, considering and including Indigenous knowledge where provided

Agency:

- Supports Indigenous groups and the proponent in understanding the impact assessment process and expectations
- Facilitates engagement with the proponent, Indigenous groups and others, as required
- Leads consultation with Indigenous groups on the proponent's **Impact Statement**

Indigenous groups:

- Undertake community activities to learn about the project and provide input to the proponent and Agency
- Contribute Indigenous knowledge
- Engage with the proponent to co-develop or collect any relevant information and identify potential effects, mitigation and follow-up measures, to inform the **Impact Statement**
- Participate in consultation activities led by the Agency

Phase 3 – Impact Assessment (300 days)

Proponent:

- Participates in Agency-led consultations with Indigenous groups, as appropriate
- Provides comments on potential conditions

Agency:

- Leads ongoing consultation with Indigenous groups on the proponent's impact assessment information, if needed
- Prepares the **draft Impact Assessment Report** and potential conditions
- Leads consultation with Indigenous groups on the **draft Impact Assessment Report** and potential conditions

Indigenous groups:

- Participate in consultation activities, including verifying impacts, mitigation and follow-up measures described in the proponent's impact assessment information and the **draft Impact Assessment Report**
- Contribute Indigenous knowledge
- Provide comment on the **draft Impact Assessment Report** and potential conditions

Phase 4 – Decision-making (30 days)

Proponent:

- Awaits the Minister's **Decision Statement**, which includes enforceable conditions

Agency:

- Posts the **Decision Statement** and **final Impact Assessment Report** on the Canadian Impact Assessment Registry Internet site

Indigenous groups:

- Await the Minister's **Decision Statement**, which includes enforceable conditions

Phase 5 – Post-Decision (ongoing)

Proponent:

- Implements mitigation measures, follow-up programs and, as appropriate, adaptive management plans
- Complies with the **Decision Statement** and corrects any non-compliance

Agency:

- Verifies compliance with the **Decision Statement**
- Provides information on compliance and enforcement

Indigenous groups:

- Work with the proponent on how they wish to be engaged, should the project proceed
- Participate in follow-up and monitoring activities, as may be provided by the **Decision Statement**
- Inform the Agency of potential non-compliance through voluntary reporting

Impact Assessment Agency of Canada
Agence d'évaluation d'impact du Canada

Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600-55 rue York
Toronto ON M5J 1R7

September 19, 2023 **Sent by email**

Chief Bill Petiquan
Wabauskang First Nation
P.O. Box 339
Ear Falls ON P0V 1T0
ChiefPetiquan@wabauskangfirstnation.ca; ChiefP@wabauskangfirstnation.ca

Chief Clifford Bull
Lac Seul First Nation
P.O. Box 100
Hudson ON P0V 1X0
CBull@lacseulfn.org

Dear Chief Bill Petiquan and Chief Clifford Bull:

Subject: Great Bear Gold Project – Response to letter from Wabauskang First Nation and Lac Seul First Nation dated September 15, 2023

Thank you for your email and correspondence dated September 15, 2023, regarding the proposed Great Bear Gold Project (the Project) and its ongoing federal impact assessment.

We regret our inability to meet with Wabauskang First Nation and Lac Seul First Nation prior to the planning phase for the Project, and apologize if your communities have perceived our actions during the recent comment period as disrespectful.

The Agency aims to engage with Indigenous communities early on projects and strives to establish and maintain meaningful relationships throughout the assessment process. The proponent, Kinross Gold Corporation, had a progressive timeline for entering the planning phase for the Project when it notified the Agency of the Project in June of 2023. The proponent submitted a satisfactory Initial Project Description, in accordance with the requirements set out in *the Information and Management of Time Limits Regulations*, which commenced the legislative timelines of the planning phase.

The Agency understands that the proponent has a positive relationship with your two communities, and we hope to leverage that as well as the Agency's good faith intention to meet with you and understand your issues and concerns with the Project at your earliest convenience. Following the meeting, the Agency will share any feedback from your community with the proponent to inform the preparation of the proponent's Detailed Project Description. The Agency values the importance of meeting with Indigenous communities prior to the planning phase when proponents provide sufficient notice. We regret that was not possible in this case.

.../2

Thank you for providing appropriate contacts. We have updated our contacts based on this information, and will use it for all future correspondence with your communities.

The Agency acknowledges and understands your interest in funding support. As stated in our August 17, 2023 letter sent to you, at this time we are able to provide the limited funding grant of $5,000 to support your review of the Proponent's Initial Project Description. However, additional funding will be made available to further support your community's participation in future stages of the Project. We ask that you kindly inform the Agency if you are interested in receiving the initial grant and the forthcoming funding. If so, a representative from the Agency will be in touch with you to provide access to funding.

The Agency welcomes the idea of an in-person meeting in Red Lake, Ontario. We are pleased to have such a meeting in the coming weeks. We would also like to propose an initial virtual meeting so that we can all put faces to names and provide a high-level overview of the impact assessment process.

My staff will be in touch with you to set up both the initial virtual meeting, if you are agreeable, as well as a follow-up face-to-face meeting in Red Lake, Ontario.

We look forward to hearing from you.

Sincerely,

Anjala Puvananathan
Director, Ontario Region

c.c.: Rod Bacon, Lac Seul First Nation
Reggie Bacon, Lac Seul First Nation
Karen Ningewance, Lac Seul First Nation
Ryan Haines, Wabauskang First Nation
Haley Kocis, Lac Seul First Nation

BUILDING A LEGACY IN RED LAKE, ONTARIO

Great Bear Project

Proposed Underground and Open Pit Gold Mine

Asubpeeschoseewagong Netum Anishinabek
November 10, 2023

KINROSS

We are honored to be working
in the traditional territory of the collective members of the Anishinaabe Nation in Treaty #3

We and all our contractors recognize and respect
the inherent and treaty rights of the Indigenous Nations on whose traditional territory we operate.

We are committed to meaningful dialogue
and working with Indigenous peoples, learning from Indigenous Knowledge and applying those learnings to our work across the organization.

Agenda

1. Great Bear Project
   A. Our Commitments
2. Federal Approval Process
   A. Status
   B. General Arrangement
   C. Timeline
3. Advanced Exploration
   A. Introduction to Advanced Exploration
   B. Community Led Technical Review and Participation
   C. AEX Features and Permits
   D. Water Management Approach
4. Pathway Forward

KINROSS

Our Vision for Great Bear

Strong Partnerships
With local Indigenous communities, rightsholders, and communities in which we operate

Long Life OP & UG Mine

Low Emissions Mine
Via electrification and clean Ontario grid power

Local Employment
700 – 1,000 potential direct jobs created

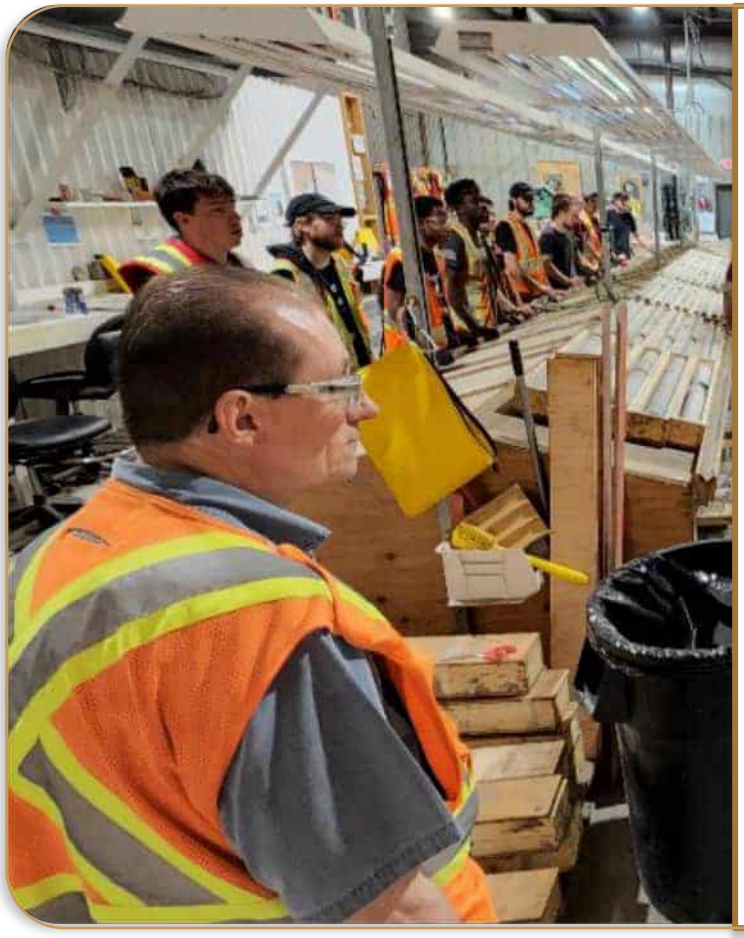
Best in Class Mine
Driven by workforce skill, design, efficiency and automation

Creating a Lasting Legacy in Red Lake, Ontario

KINROSS

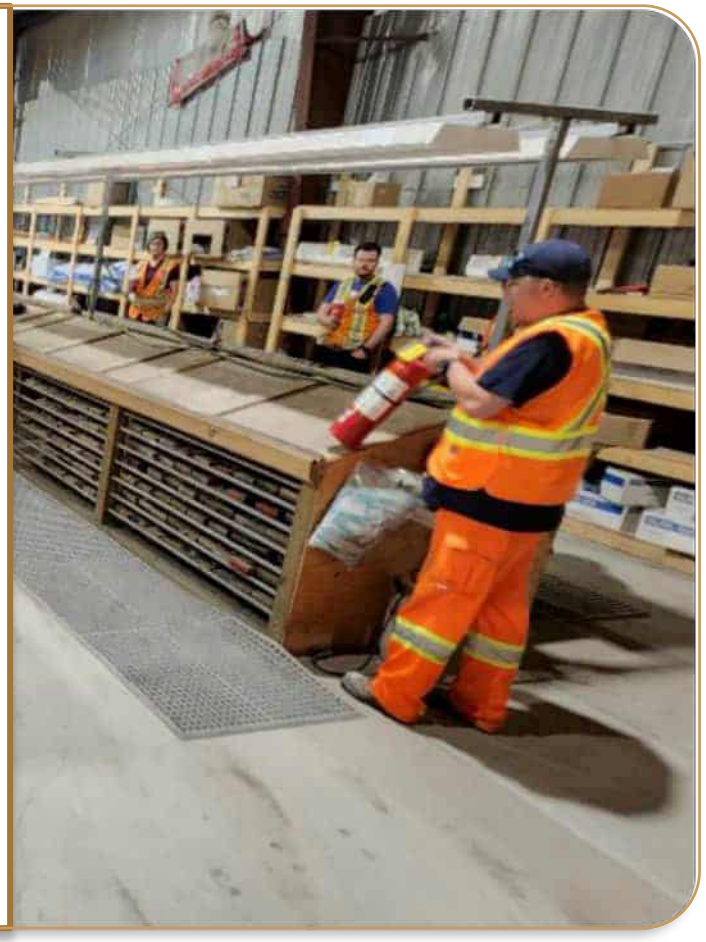
Committed to Operating Responsibly

Focus on prioritizing health and safety above all else



We value the health and safety of our workforce above all other priorities

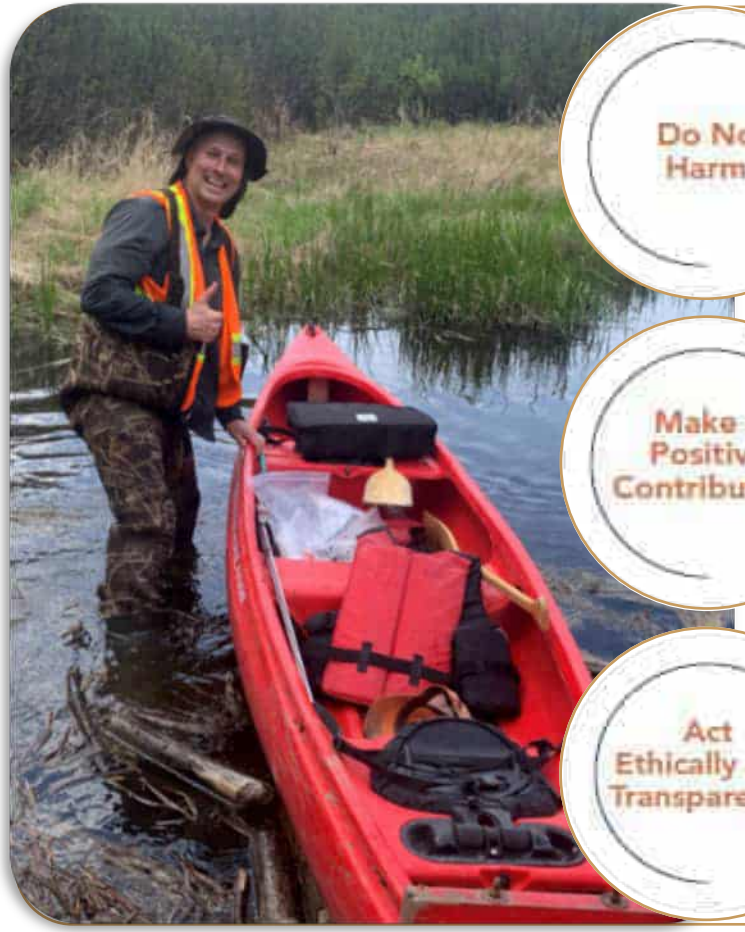
We implement risk controls, training, and leadership to ensure a culture of safe work at all sites at all times



KINROSS

Committed to Operating Responsibly

Our approach to sustainability



Do No Harm

We work to protect our workforce, environment and host communities from negative impacts

Make a Positive Contribution

We aim to provide meaningful livelihoods for employees, opportunities for suppliers and improvements in our host communities

Act Ethically and Transparently

We operate with respect for human rights and we engage with our stakeholders

Continuous Improvement

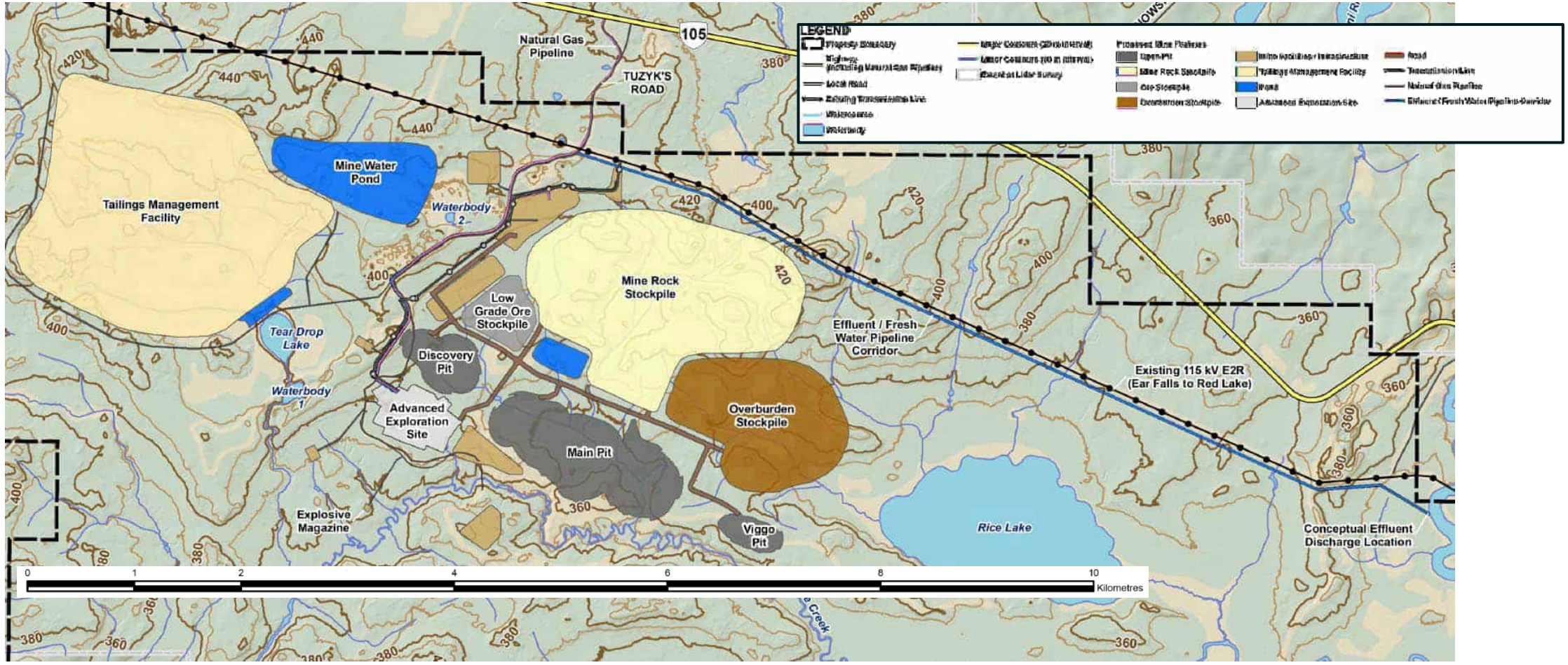
We strive to improve our approach to corporate responsibility practices

BUILDING A LEGACY IN RED LAKE, ONTARIO
Main Project
Impact Assessment
KINROSS

IAAC Process (as of October 13th, 2023) – Planning Phase

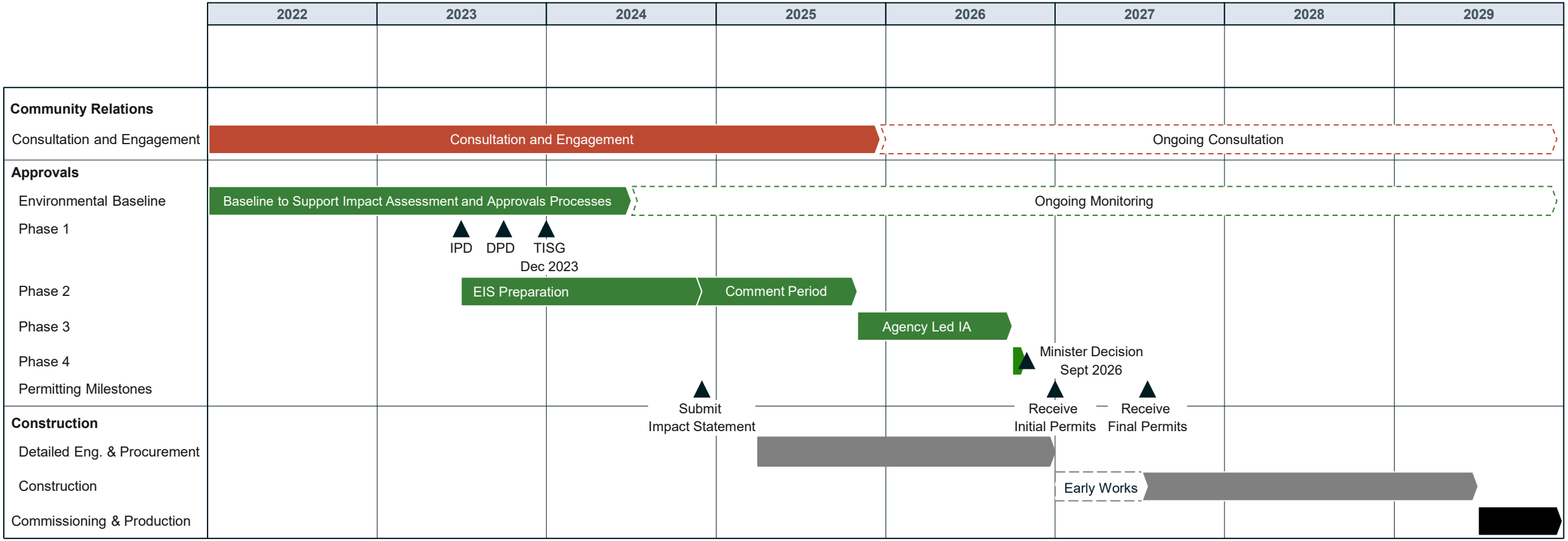
- Objective of Phase 1:
  - Identify issues of importance to communities including opportunities for collaboration and cooperation. Identify pathways to set the stage for meaningful engagement and consultation throughout the process
  - Formally determine whether an impact assessment is required and receive tailored Impact Statement Guidelines
  - Plan the Impact Assessment and prepare plans that establish the process for participants
- Status:
  - The Agency posted the Initial Project Description (IPD) for public and Indigenous review (August 17, 2023)
  - The Agency has compiled a Summary of Issues detailing concerns they have heard during their engagement (provided to Kinross on September 29, 2023)
  - Kinross preparing its responses to issues raised during IAAC engagement within its Detailed Project Description (DPD)
- Next Steps:
  - After accepting DPD, Agency determines whether an Impact Assessment is required
  - Agency develops several planning documents, and the assessment moves to Phase 2 (preparation of the Impact Statement)

Main Project – General Arrangement



KINROSS

Timeline within IAAC Process



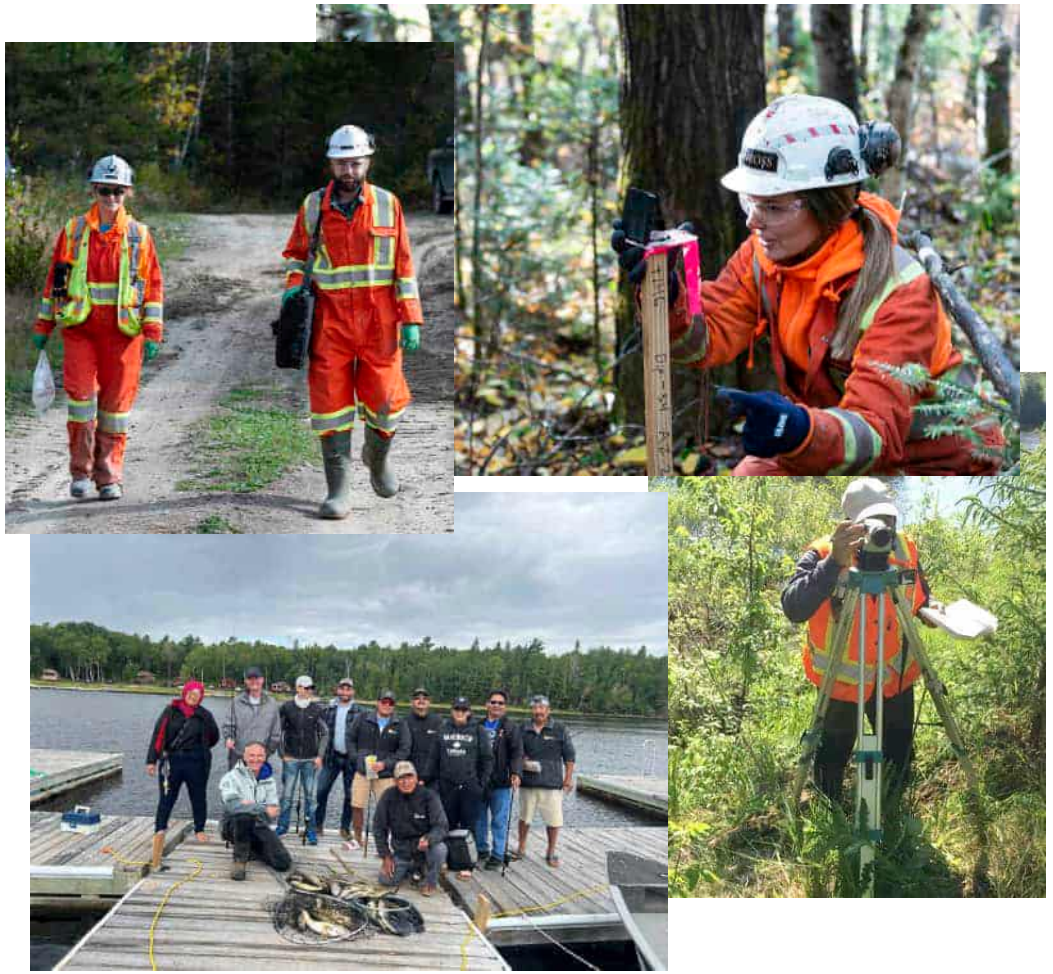
BUILDING A LEGACY IN RED LAKE, ONTARIO

Advanced Exploration

KINROSS

Overview and Approach

- The purpose of Advanced Exploration is to obtain additional information on:
  - Mineralized zones through underground drilling
  - Extract a bulk sample of up to 60,000 tonnes by underground mining methods
- Bulk sample will be transported up an underground ramp to surface by truck for crushing, sorting, sampling and stored in stockpiles. Samples will be transported by truck to test facility off site
- Testing provides a better understanding of grade and metallurgical recoveries to support a viable commercial production scenario



KINROSS

Community Led Technical Review and Participation

- The team at Wabauskang First Nation and Lac Seul First Nation has been an active participant in baseline activities, inspections, and technical reviews on draft applications for the advanced exploration permitting
- Technical reviews have been led by Dillion/SOAR, and Sapo'nuk Sustainability, with input and guidance from staff and leadership
- Wabauskang, Lac Seul and Kinross have formed an environmental committee to help review work, and ensure community input going forward
- As part of our partnership, notice is provided of upcoming business opportunities, employment, and has provided training to Wabauskang and Lac Seul staff working on the Project

Sapo'nuk Sustainability

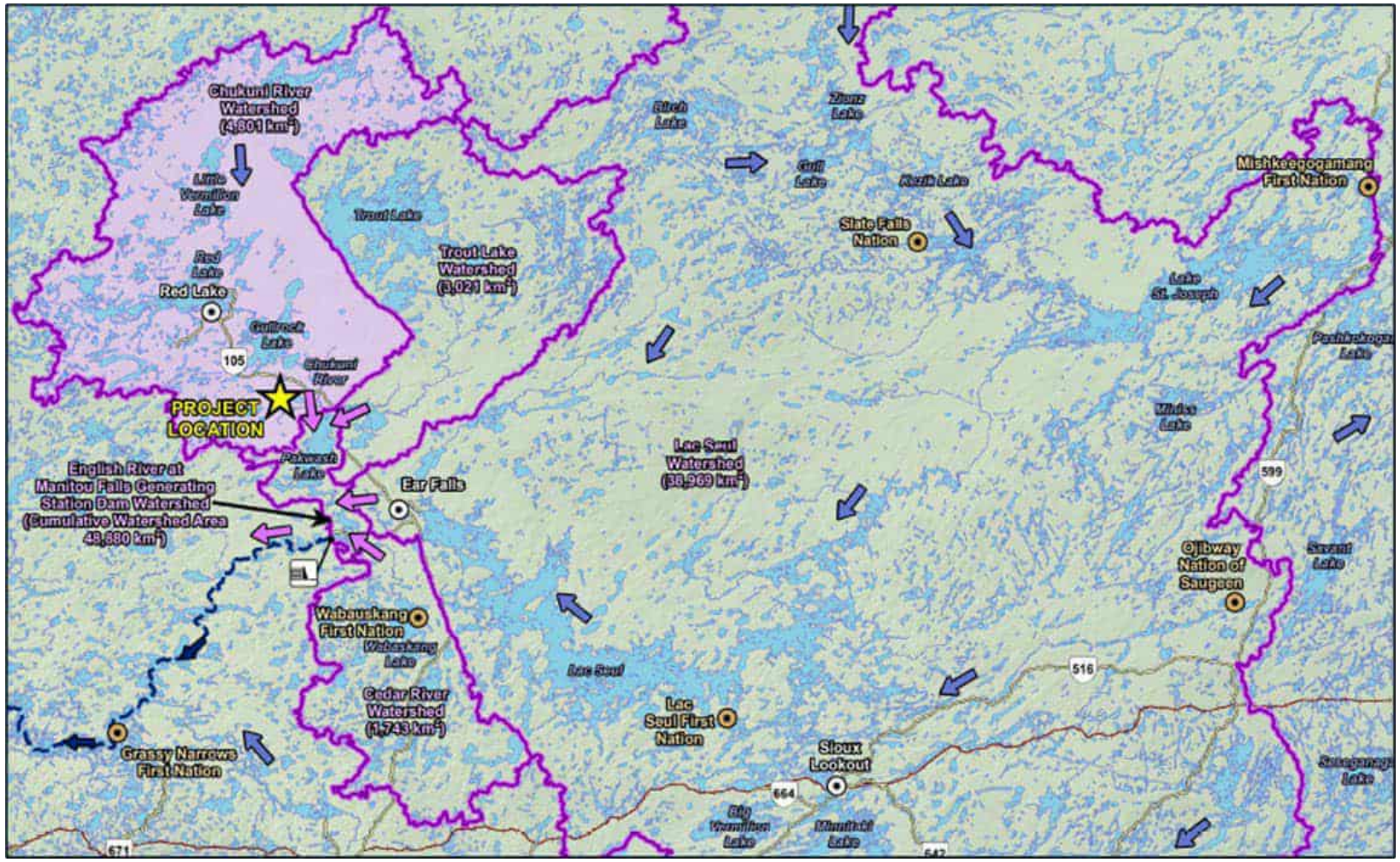
DILLON CONSULTING

SOAR Professional Services

KINROSS

Watershed Focus

- The Great Bear Project is located in the Chukuni River watershed
- Water from the Chukuni River flows into Pakwash Lake and English River
- Our local watersheds have driven the approach to surface water sampling, hydrology assessments, and our aquatics programs



KINROSS

Features and Overview

Area	Design	Justification
Twin Declines	• Twin portals and ramps	• Safety is first priority at Kinross. Show this by Safety in Design • Creating secondary egress from Day 1
Underground Development	• ~9,000 m of development to access the deposit. Incl. ventilation, utilities, dewatering, etc.	• 3 deposits targeted (LP, Hinge and Limb) • Need to get down to >600m vertical depth to drill deeper sections of the deposit more efficiently
Power	• Natural gas power generation for start up of activities. Transition to grid power during AEX program if possible • Diesel generation is for backup and the construction stage	• Power connection timelines uncertain. Transition when possible
Camp	• 100 person camp on property	• Temporary influx of personnel into region • Limits fatigue as camp nearby and provides personnel oversight
Rock – Mine Rock Management	• Separate PAG and NAG storage • Return PAG underground at closure • Sampling programing during AEX	• Best mine rock management practices • Potential re-use of NAG for aggregate or construction
Water Treatment	• Robust water treatment design	• Striving for high-standard of water treatment and management. Priority for Kinross
Water Management	• Collection of all runoff with appropriate treatment and storage	• Water management is critical to project and Kinross
Effluent Discharge	• Chukuni river via pipeline (potentially to Dixie Creek at start)	• Water will be treated prior to discharge and all regulatory requirements will be met (water quality and flows)

Advanced Exploration Permits

Agency	Permit	Comments
Ministry of Mines	Closure Plan (Final Filing)	▪ A written plan on how the site will be rehabilitated ▪ Financial assurance required prior to construction start
Ministry of Environment and Parks	Class EA Temporary Power (construction)	▪ Required for temporary diesel power between 1 and up to 5 MW during the construction phase of the AEX project. ▪ Assess the operation of diesel generator and identify mitigation measures
	Environmental Compliance Approval (ECA) Air (Operations)	▪ Required for air emissions related to all activities for AEX including noise for AEX Operations
	Permit to Take Water (PTTW) Underground and Surface	▪ Required for all water taking and or transfers. Includes underground dewatering and construction front activities that require the movement of water. ▪ Required to initiate AEX footprint construction activities
	ECA Industrial Water Management	▪ Required to manage and discharge treated water back to the environment. All water that flows through or on the site will need to be collected and treated prior to discharging to the environment. ▪ Required to initiate AEX footprint construction activities
Ministry of Natural Resources and Forestry	Crown Resource Class EA Screening	▪ Required to assess the potential impacts of timber clearing activities.
	Forestry Resource License	▪ Required to remove any timber from crown land, obtained after the Class EA Screening is complete
	Land Use Permits	▪ Required for any activity on Crown land that has not been brought to lease. A large section of the WTP effluent pipeline is anticipated to be on crown land. ▪ A portion of the Natural Gas pipeline may also require a land use permit for AEX

KINROSS

FOR DISCUSSION PURPOSES ONLY- PRIVILEGED & CONFIDENTIAL

Permit to Take Water

- A key component of AEX activities is control, management, and protection of water resources. To ensure proper management Kinross will need to both actively manage surface water (including creek systems) but also dewater the underground workings
- Kinross has taken a conservative approach in pumping to ensure safety for staff underground in the case of an unexpected event like a power outage

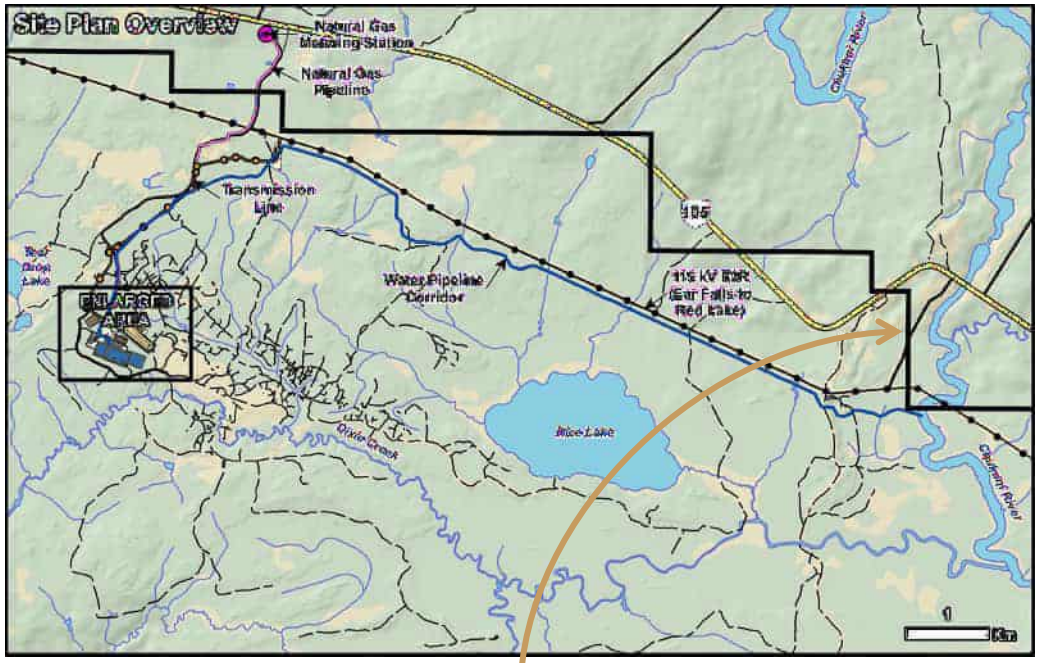
Table 4-1: Requested Water Takings

No.	Source Name / Description	Source Type	Taking Specific Purpose	Taking Major Category	Maximum Taken (m^3/min)	Maximum Number of Hours Taken per Day	Maximum Taken per day in m^3	Maximum Number of Days Taken per Year	Location (Easting / Northing)
1	Underground Portal	Groundwater	Dewatering	Industrial	1.39	24	2,000	365	455377 / 5634568
2	Underground Dewatering, Uncertainty Event (Contingency) [1]	Groundwater	Dewatering	Industrial	3.13	24	4,500	30	455377 / 5634568
3	4 Pond Excavations [2]	Surface water	Dewatering	Industrial	0.12	24	170	365	455340 / 5634390
4	4 Pond Excavations	Groundwater	Dewatering	Industrial	0.54	24	783	365	455340 / 5634390
5	Dixie Creek	Surface Water	Other-Industrial	Industrial	0.17	24	250	365	455994 / 5633961
						Total Requested Water Taking	**7703**		

Notes:
[1] In support contingency planning with respect to underground dewatering, Kinross is also requesting pumping at higher rates to remove water after an interruption in pumping, as required (for example, due to a power failure or some other unexpected events)
[2] Combined estimate for dug-out Mine Water Pond 1, Mine Water Pond 2, Settling Pond and Polishing Pond.

KINROSS

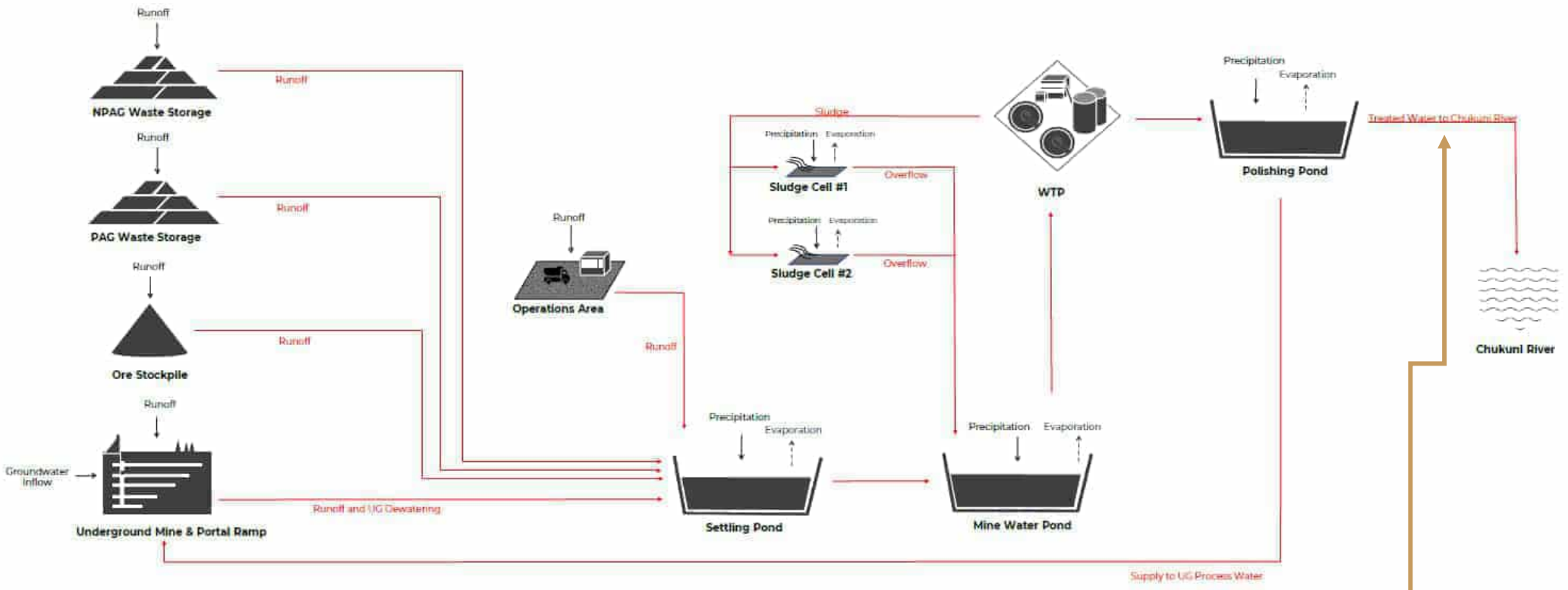
Environmental Compliance Approval (ECA)
Water Management and Permit to Take Water



Water management design, structure, control, and mitigation is **key** to our approach to AEX and future operations. **We are committed** to an approach that is **protective of human, plant, and animal life** in the Chukuni River watershed

KINROSS

Water Balance



All collected water discharged to the Chukuni River will be managed to protect the environment and achieve regulatory requirements. All water set to be released will be subject to water treatment

KINROSS

Water Treatment

- Contact water discharged to the Chukuni River will be managed to achieve regulatory requirements.
- This includes a multi-stage treatment process that includes:
  - Ammonia Treatment – Moving Bed Biofilm Reactor (MBBR)
  - pH adjustment, clarification
  - Additional ultrafiltration
- Kinross is committed to applying adaptive management practices in the development of the approach to water management on site. This includes sharing trending data, duplicate sampling, and ongoing transparent dialogue with Indigenous communities

Table 5-6: Proposed Discharge Limits

Parameter	Calculated Limits [1]	Proposed Discharge Limits [1]	
		Maximum Monthly Average Concentration	Maximum (Daily) Concentration
pH	-	pH of discharge maintained between 6.5 and 8.5, inclusive, at all times	
Total Suspended Solids	-	15	30
Arsenic	0.009	0.009	0.018
Copper	0.103	0.1	0.2
Lead	0.303	0.08	0.16
Nickel	0.73	0.25	0.5
Zinc	0.34	0.34	0.68
Un-ionized Ammonia	0.32	0.32	0.64
Phosphorus	0.22	0.22	0.24

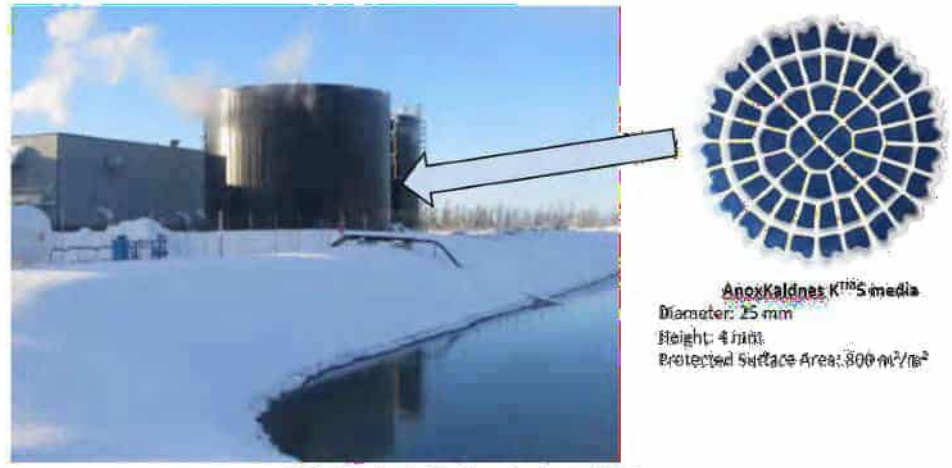
Notes:
All units are mg/L, save pH (unitless)
[1] The Chukuni River is a large receiver, with high assimilative capacity for most parameters. Where the back-calculated monthly average limits were greater than MDMER criteria, the calculated limits were subsequently reduced to MDMER specified effluent criteria, as applicable

Our discharge approach is to meet the lower of the monthly average limits on a daily frequency, ensuring ongoing protection of the aquatic environment, and downstream users.

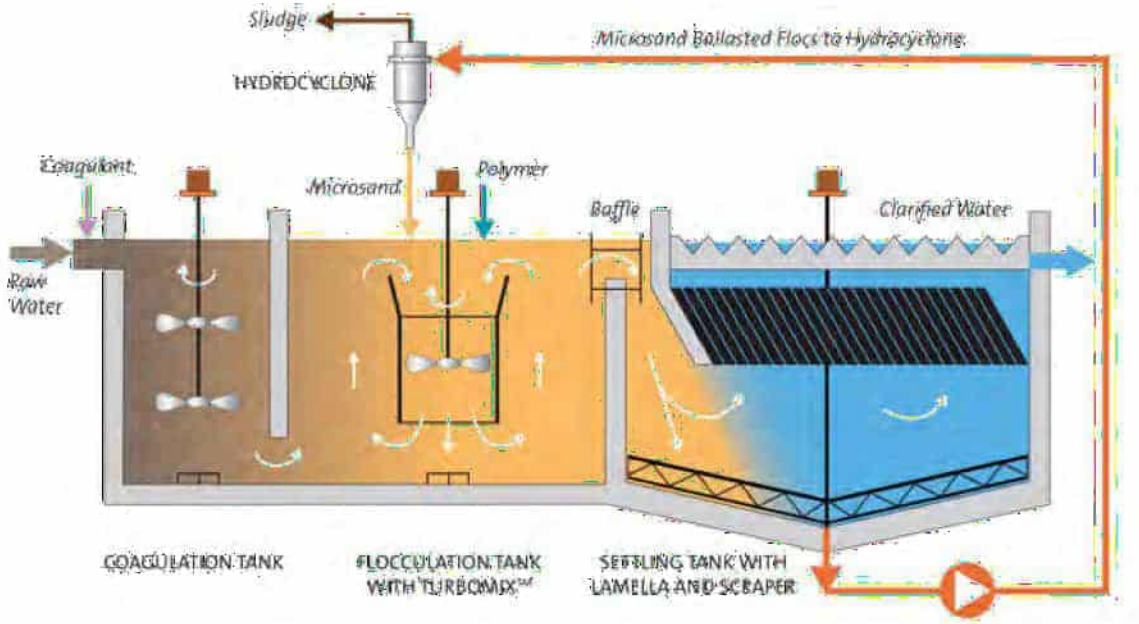
KINROSS

Water Treatment – Ammonia, Clarification, and Filtration

- The system proposed has been used successfully in local and regional operations across northwestern Ontario
- Ammonia Treatment – Moving Bed Biofilm Reactor (MBBR)
  - Uses small plastic carriers that allow microorganisms to grow and break down the ammonia.
  - Allows natural breakdown and consumption of ammonia
- Actiflo System – Supporting pH adjustment, clarification, and filtration
  - Increase solids contact to initiate precipitation. Solids fall to bottom of the tank and are removed.
  - Clean water is forced upwards and is clarified.
  - Ultra filtration (not shown in image) will be applied to further remove contaminants creating world class treatment system



MBBR Reactors in Northern Quebec Gold Mine



KINROSS

BUILDING A LEGACY IN RED LAKE, ONTARIO
Path Forward
KINROSS

Input and Path Forward with Asubpeeschoseewagong Netum Anishinabek

- Kinross remains open to discussing capacity funding to be provided by Kinross to Asubpeeschoseewagong Netum Anishinabek and the Lands Protection Team, to facilitate and support technical review of environmental and regulatory documents related to the Great Bear Advanced Exploration Permitting and Main Mine Project Impact Assessment
- Kinross also remains open to discuss ongoing procurement and business opportunities with those businesses partnered with Asubpeeschoseewagong Netum Anishinabek
- Kinross is open to working with Asubpeeschoseewagong Netum Anishinabek and the Lands Protection Team to determine a path to establish independent community water monitoring

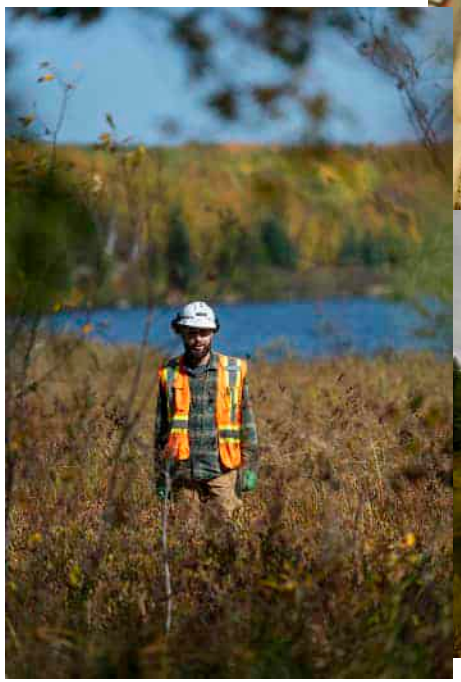
KINROSS

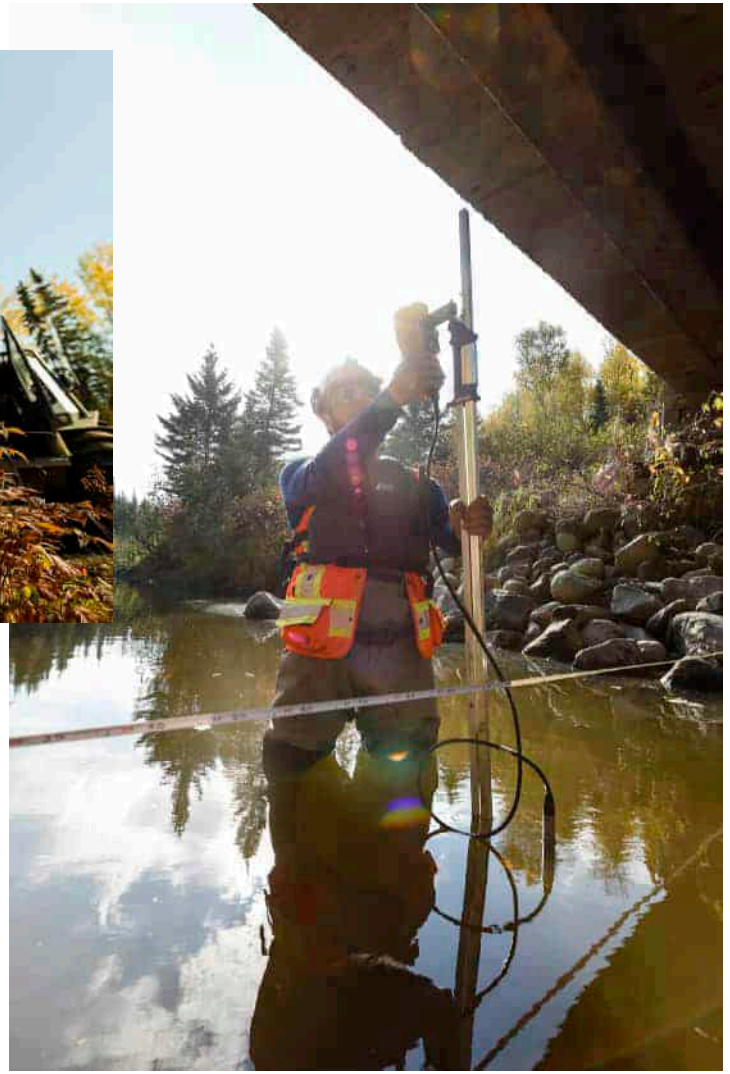
KINROSS

BUILDING A LEGACY IN RED LAKE, ONTARIO
Appendix
KINROSS

Monitoring Plans

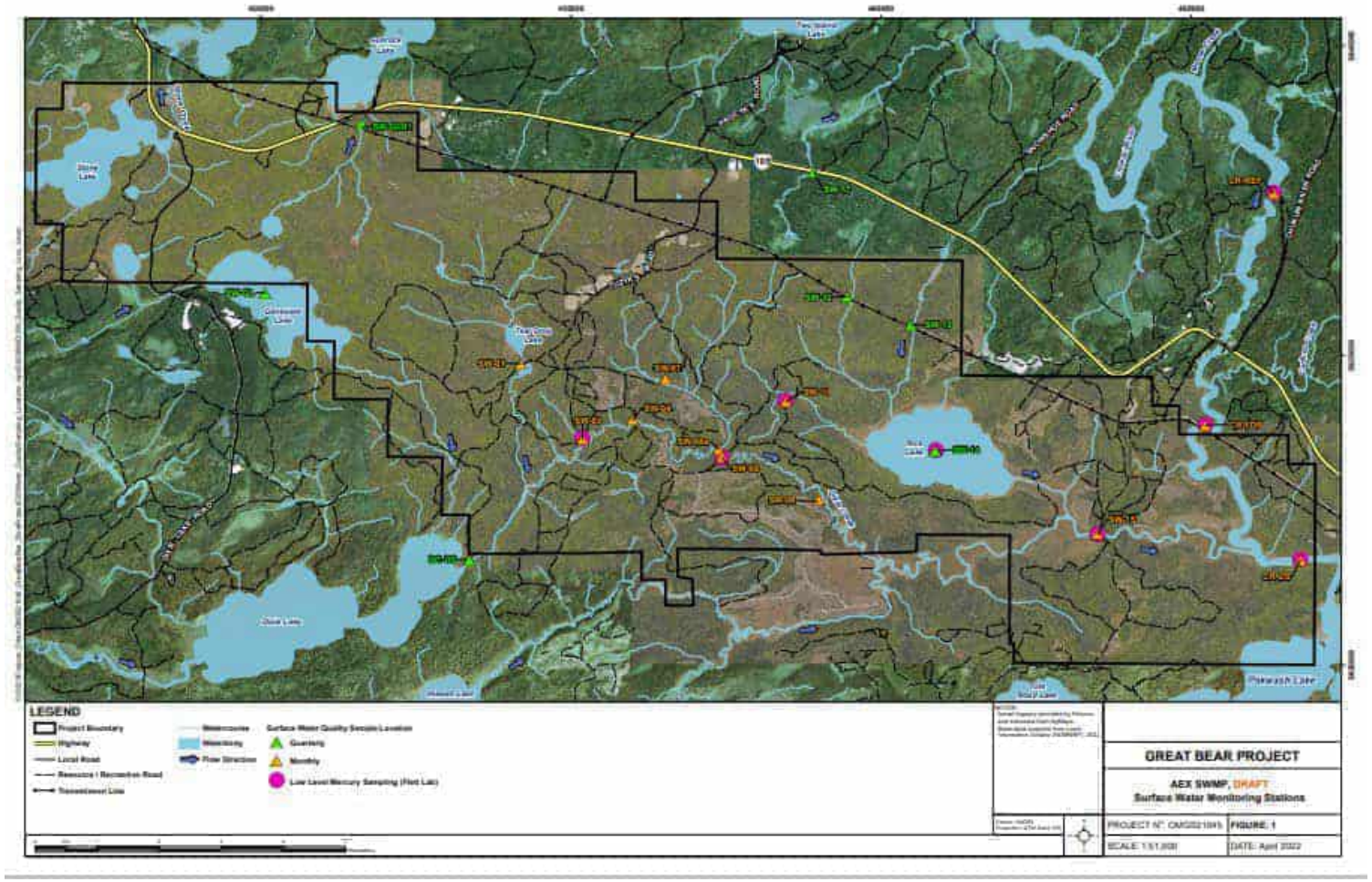
1. Surface Water Quality
2. Hydrology
3. Aquatics
4. Hydrogeology





KINROSS

Surface Water Quality



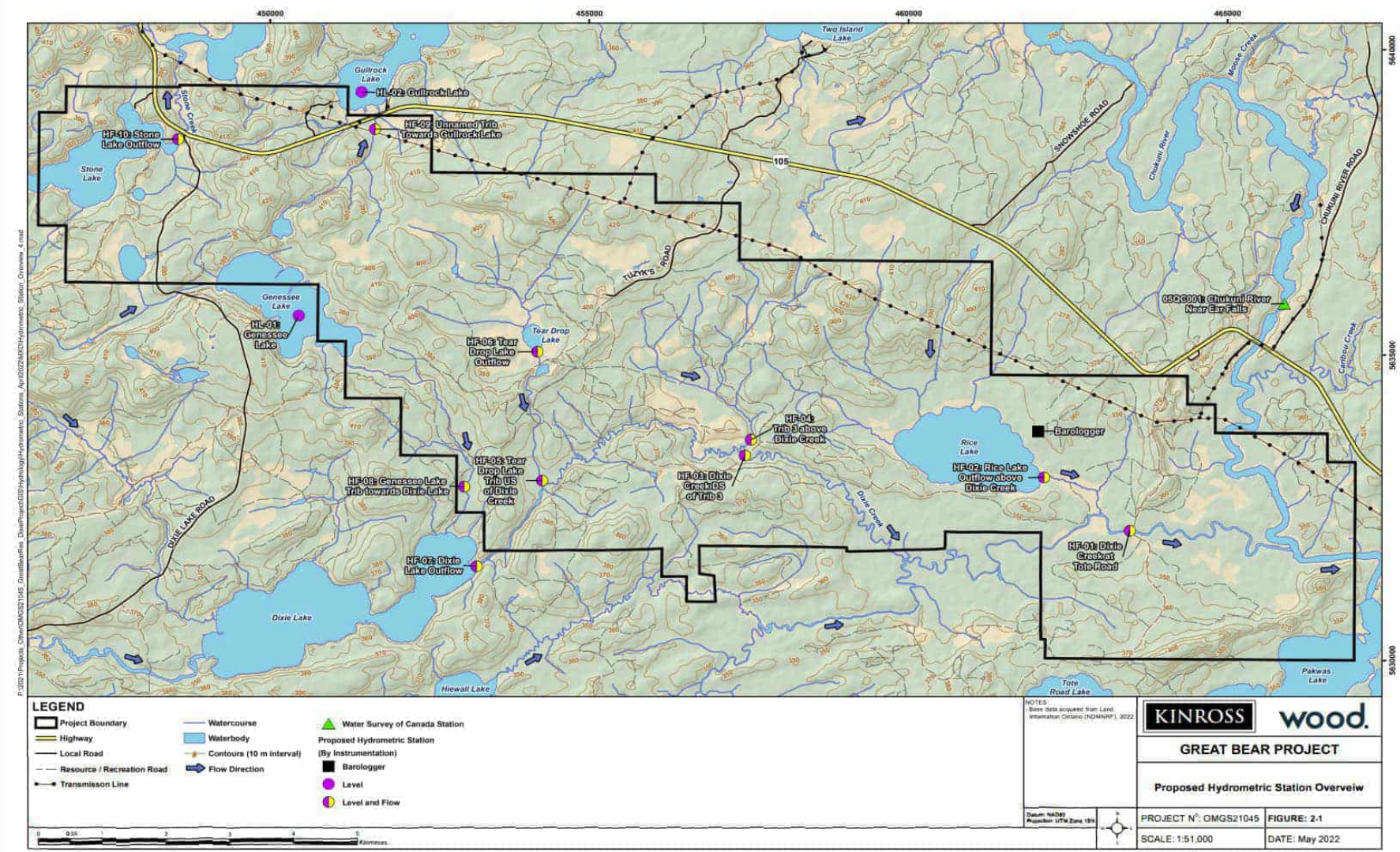
Hydrometric Monitoring Site

Table 2-2: Hydrometric Monitoring Rationale

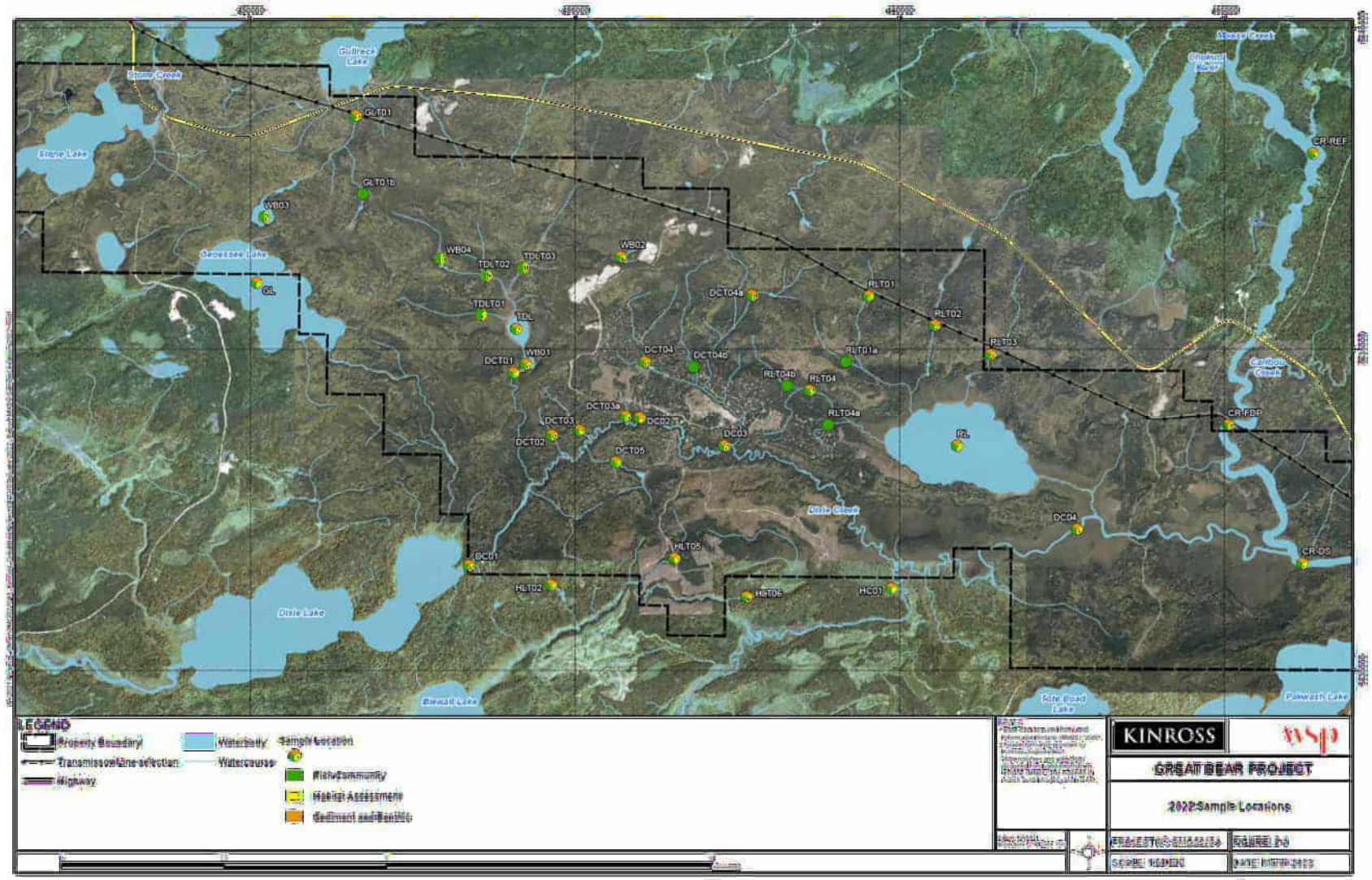
ID	Station Name	Rationale for Selection
Off-site Stations		
HF-01	Dixie Creek at Tote Road	Measure flows and levels on Dixie Creek downstream of all project development.
HF-02	Rice Lake Outflow above Dixie Creek	Characterize seasonal behaviour of Rice Lake, contributions to Dixie Creek from Rice Lake Trib.
HF-03	Dixie Creek DS of LP Trib	Measure flows through Dixie Creek, estimate contributions from second order tributaries along Dixie Creek.
HF-04	LP Fault Trib US of Dixie Creek	Characterize flows through Tributary 3 and the defined drilling area.
HF-06	Tear Drop Lake Outflow	Characterize seasonal behaviour of Tear Drop Lake, contributions to Dixie Creek from Tear Drop Lake Trib.
HF-07	Dixie Lake Outflow	Measure flows and levels on Dixie Creek, upstream of any project development.
HF-08	Genessee Lake Trib towards Dixie Lake	Characterize flows out of Genessee Lake, contributions to Dixie Lake from Genessee Lake Trib.
HF-10	Stone Lake Outflow	Measure flows and levels from Stone Lake to Gullrock Lake, watershed potentially impacted by project development.
HL-01	Genessee Lake	Characterize seasonal behaviour of Genessee Lake.
HL-02	Gullrock lake	Characterize seasonal behaviour of Gullrock Lake.
HL-03	Chukuni River	Estimate potential tailwater conditions on Dixie Creek caused by Chukuni River levels.
On-site Stations		
-	Settling Pond	Pumping to Mine Water Pond(s); Primary AEX water management surge pond, used to provide TSS and residual ammonia management, and to moderate the effluent feed rate to the Effluent Treatment Plant
-	Mine Water Storage Ponds	Pumping to Effluent Treatment Plant; Holding pond, represents influent to Effluent Treatment Plan
-	Effluent Treatment Plant	Pumping to Polishing Pond; Removal of metals and potentially other contaminants from AEX effluent prior to discharge to the Chukuni River
-	Polishing Pond	Final Compliance Point, discharge to Chukuni River via pipeline and diffuser

KINROSS

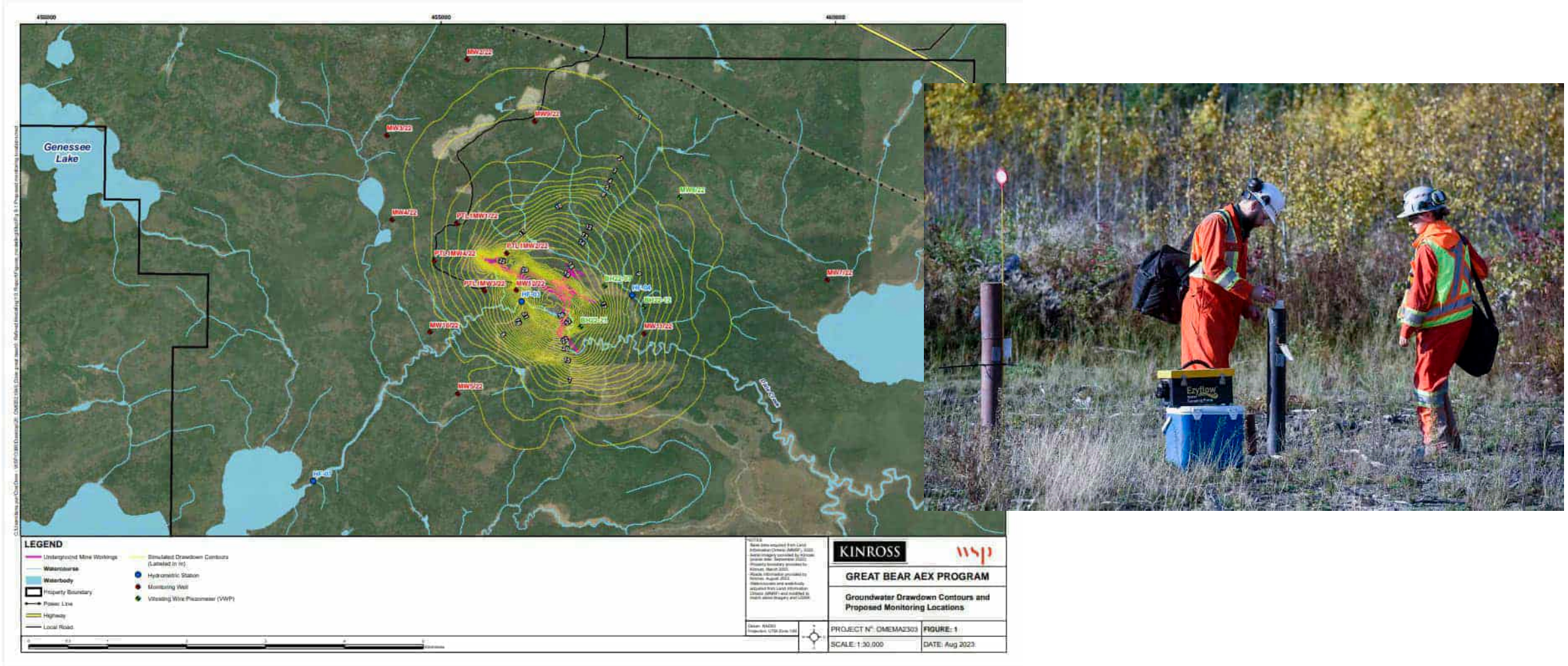
Hydrometric Flow Monitoring



Aquatics


LEGEND
Property Boundary
Transmission Line Selection
Highway
Waterbody
Watercourse
Sample Location
Fish/Community
Habitat Assessment
Sediment and Benthic
KINROSS
GREAT BEAR PROJECT
2022 Sample Locations

Groundwater Monitoring



Grassy Narrows – Kinross – IAAC Joint Meeting

1. **Executive Summary**

Client Name	Kinross Gold Corporation	**Project No:**	**TBD**
Project Name	Great Bear Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [X]
Location:	Virtual		
Time:	12:00 PM CT – 1:30 PM CT		
Date:	November 10, 2023		
Executive Summary:	Meeting between representation of Grassy Narrows First Nation, Kinross Gold, and the Impact Assessment Agency of Canada. IAAC provided presentation materials ahead of meeting to support, note GNFN provided notice that review of Kinross provided materials will not be completed at this time. Principal dialogue occurred between representatives of Kinross and GNFN. Request from GNFN to apply a pause to all activities until former protocol agreement can be put in place to ensure information sharing. Noted commitment to affirm follow up meeting timing to address actions, including consideration to pause. Kinross staff reaffirmed Company commitment to provide capacity to support informed dialogue. Key concerns articulated included a focus on community dialogue and integration of that knowledge over the course of the Project, lack of consultation to date, requirement for an appropriate protocol, and illustrating concerns that the Project presents an ongoing risk to the communities Aboriginal and Treaty Rights.		
Key Actions:	a. Kinross and GNFN Lands Protection Team to confirm follow up meeting timing. b. Kinross as part of follow up meeting to affirm decision on protocol agreement, and consideration to a pause as requested by Lands Protection Team.		

2. **Attendance**
    a. Kinross
        i. Ian Russell
        ii. Mac Potter
        iii. Nathan Longnecker
        iv. Luke Crosby
        v. Aaron MacDonell
        vi. Ashley Moncrief
    b. Grassy Narrows First Nation
        i. Jospeh Fobister
        ii. Mike Fobister
        iii. Jackie Esmonde
            1. Legal Counsel
        iv. David Sone
            1. Advisor
        v. David Mossip-Balkwill
            1. Advisor
    c. IAAC
        i. Ian Lindsay

ii. Owais Khurdis
iii. Natalie Boyd

3. Agenda and Attachments

1) Introductions
2) Grassy Narrows concerns with the relationship to date
3) Pausing the process
4) Need for a Process Agreement
5) Capacity Supports

Kinross-Grassy Narrows Project Upda

Note that presentation was provided by IAAC to GNFN, GNFN provided direction to the Agency that they were not amendable to a Project update as part of the meeting.

4. Minutes

a. Opening Prayer and Remarks
   i. The meeting was opened with a prayer and comments from community member and Lands Protection Lead from GNFN. They spoke to their connection to the land, and ongoing concern with the process. They noted that it was only recently that they became aware of the Project, and it must be considered.
   ii. GNFN noted that the historical conditions, residential schools, movement of the community, and historical legacy of the mill have challenged the community.
   iii. GNFN noted that they need to be involved in the work in the territory, especially with those Projects interconnected via the watershed. Our community needs to understand how the activity will impact us, and that requires a clear process forward. They noted GNFN success in challenging industrial activity and logging. If there is no action they have had success using protest, the legal system and the media in ensuring our peoples protection.
   iv. GNFN spoke to ongoing communication with GNFN, and that all received to date is ungenuine in nature. She raised that GNFN reached out to GBR historical to no response, and Kinross has expressed a similar pattern. GNFN noted that it is clear that Kinross has engaged with the other Nations in the area and have ignore GNFN, and that from our meeting in June 2023 these concerns have been ignored.
   v. GNFN noted the continued lack of capacity to support activities and review of work. The Lands Protection Team strongly disagrees that concerns have been met, and this reflects the shortcomings of Kinross.

b. Discussion
   i. GNFN asked why has GBR/Kinross not engaged with GNFN since 2018?
      1. GBR noted that communication and dialogue has occurred and they are seeking a pathway forward not a reflection of the work in the past, and prior to Kinross acquiring the Project
      2. GBR noted that prior to March 2022 activities of Great Bear were governed under the previous ownership.

ii. GNFN noted that our primary concerns are those contaminants of concern, including mercury and the impact to the people. They are trying to ensure they protect those people.
    1. GNFN noted it is imperative that they understand and agree on a process. They want to understand value, address concerns, ceremony, and ensure that if applicable design measures to meet the community's health crisis. GNFN added that decision and direction have been made without dialogue with the community, they spoke to the agreements in place with other communities and the lack of action is a sign of insincerity by Kinross. They cannot go back but to ensure steps forward they need to determine a protocol and process.

iii. GNFN stated that as part of this process, our request is to Kinross to pause all activities until this can be determined.
    1. GNFN spoke to lack of defined capacity funding, and that this action is by way of the historical approach of the Company. If Kinross is sincere and would like to advance things a pause is required to ensure they meet that. Grassy has agreements of similar nature with the Crown to meet items such as this.
    2. GNFN noted that they need to reset the relationship, and this covers all things. If no action on Kinross these deadlines will pass and the Community will take action to protect its rights. GNFN affirmed prior statement by that the community will take action via protest or other form to protect its interest.

iv. GNFN restated if Kinross is open to pause?
    1. GBR noted that they are in the planning process for the Project, and that decisions are not final with either the Provincial or Federal Crown at this point. They welcome the opportunity to continue this dialogue and develop an appropriate process forward. GBR confirmed that a decision on accepting a pause cannot be made at this time. However, they reaffirmed that they are serious about funding capacity. Kinross is focused to ensure proper capacity is in place, they are not breaking ground tomorrow, information and dialogue is the key.

v. GNFN responded that the approach and is an excuse and commitment to shareholders is not our concern. Our community seeks to be involved, and our community members have little to no understanding of the Project.
    1. This direction was reinforced by other GNFN participants, noted lack of resources limits any ability to participate.
    2. GNFN noted that if agreement is required it would take approximately 3 weeks at a minimum to review and ensure it aligns. Leadership then will have to discuss, community, and then instruction to execute has to be levied.
        a. GNFN reiterated previous message on health crisis, and concerns in the community. That is the priority for our leaders.
        b. GNFN acknowledged that Kinross has provided a significant amount of information about the Project but they have no capacity to review in an informed manner.
            i. GBR noted that they can commit to that process and timelines and they understand and acknowledge the hardships. A protocol is important as is structure dialogue supporting it.

vi. GNFN responded that will Kinross discuss a pause, before speaking key terms required within a Process Agreement. GNFN noted that these is no template and they will have to discuss terms. They need to ensure this process is engaged as soon as possible as these things take time.

1. GBR noted that they are committed to process and going forward. GBR inquired to group on meeting date to discuss terms. No response issued by group.
2. GBR reiterated question on timing, noting historical offers by Kinross have not been received or considered by GNFN to date.
    a. **ACTION**
        i. GNFN response that GNFN does not have the capacity to respond but affirmed that they will provide meeting times in follow up, and Kinross will coordinate with GNFN on timing.

vii. GNFN asked Kinross for timing on a response on a pause for the Project.
1. GBR noted that ultimatums are not functional and noted decision to defer with IAAC. He noted the importance of discussion and accommodating interest.
    a. GNFN noted that lecturing GNFN is not supportive of dialogue ahead.
    b. GNFN noted that the current pathway is an ultimatum to the Community.
2. **ACTION**
    a. Noted dialogue acknowledging that the expectations will be a response on consideration for pause, in addition to initial draft of protocol agreement for consideration.

viii. GNFN inquired on current dialogue with MINES?
1. GBR noted that MINES have delegated the process to us.
    a. GNFN inquired when this decision was made?
        i. GBR confirmed April 6, 2023.
            1. **ACTION**
                a. Kinross to reach out to MINES to reissue communication to Lands Protection Group

ix. Dialogue between Kinross staff and GNFN advisory members on interaction and connection of AEX work, and IAAC process. Noted that the process is separate.
1. IAAC affirmed that integration of the Provincial Crown in the IAAC process is critical and that they provide comment on the IS. Noted that several operational permits are required following the completion of a Federal IS.

x. GNFN raised that GNFN is seeking a table with MINES to discuss current issues and impacts on the land.

5. Action Items

a. Kinross and GNFN Lands Protection Team to confirm follow up meeting timing.
b. Kinross as part of follow up meeting to affirm decision on protocol agreement, and consideration to a pause as requested by Lands Protection Team.
c. Kinross to reach out to MINES to reissue communication related to Delegation to Consult with GNFN provided previously on April 6, 2023.

Dated: November 18, 2023

Meeting Minutes

Kinross – GBR – IAAC – DPD and Summary of Issues

Date:	November 23, 2023	**Time:**	9.00 EST	**Location:**	Virtual
Client:	Kinross			**SLR Project No.:**	241.030825.00001

Attendees	IAAC – Natalie Boyde, Carl Johansson, Jacques Lavoie, Kiera Smith, Brooke Ellison-Wareing Kinross – Aaron MacDonell, Ashley Moncrief, Mac Potter, Luke Jalsevac, Nathan Longenecker WSP – Heather Lindsay, Dan Russell SLR - Fiona Christiansen
Regrets	
Chairperson	

Item	Discussion Notes
1.0	**Introductions/Opening Remarks** • No questions or comments raised.
2.0	**Schedule and Indigenous Reations/ROC Update** • Kinross are continuing based on the interim guidelines, and we are intenting to submit the final DPD – Kinross questioned if this is a reasonable assumption? • IAAC confirmed there are no timeline commitments on proponents at this point (therefore no timeline extension request is required), Kinross's extension letter is null/void at this time. IAAC also confirmed that they are continuing to work to their internal timelines. • Kinross confirmed they are intending to submit the DPD in December 2023 (TISG anticipated to be received in March 2024). • Kinross are planning to submit the IS in November 2024 (with no draft). Kinross are anticipating approximately 1 year of comment/responses following submission. Followed by the agencies IA and permitting. • IAAC asked if there is the need for a provincial EA for deposition of Crown Land or an EA for the T-line? • Kinross confirmed they are not volunterrig for a provincial EA. Kinrss are not anticipating an individual EA will be required. There may be a relatively small class EA requirement for crown land deposition that will be determined as the project progresses. • Kinross will not the be the proponent of a T-line. Kinross are continuing to work with the government to determine the timelines for power upgrade – this is not in the scope of this assessment. **GNFN** • Kinross confirmed that engagement started in 2022. • A map of the proposed GNFN IPCA was shown and it was confirmed that the project is outside of this area. They are a downstream community. • Aug 2022 – MINES updated the early exploration permit consultation list (and included GNFN). Kinross reached out and were told in writing that GNFN did not want to meet.

	• Kinross also confirmed they voluntarily removed some claims that were originally within the IPCA. • When GBR started the AEX process there was a meeting with GNFN in June 2023. Documents have been uploaded to a sharepoint site for review. No comments received to date. Final AEX applications anticipated to be filled by Kinross in Dec 2023. • In Summer 2023 Kinross provided the draft IPD and initiated main project permitting. In Fall 2023 Kinross sent repeated letters with no responses received to date. • Capacity funding has been offered to GNFN by Kinross and a process agreement is being drafted. Repeated requests to engage by Kinross have been denied. • IAAC – during the consultation on AEX did Kinross cover off the federal process? Kinross confirmed that both AEX and the future mine were discussed. • IAAC - process agreement and capacity funding – has there been any further consultation on this? Kinross confirmed there has been no further progress on this. Letters and meeting times have been shared, it was confirmed that Kinross are not anticipating to delay the planning phase of the Project and will continue to work with GNFN as the Project progresses. • IAAC – will the DPD be updated to include any new ROC information (meeting that have occurd since sharing the draft). Kinross confirmed this will occur. **LSFN/WFN** • Kinross confirmed they have a positive relationship.
3.0	**Draft DPD and Summary of Issues** • IAAC confirmed that the focus of their review was on federal jurisdiction only when reviewing the DPD. • IAAC noted that the more detail there is in the DPD the more tailored the TISG could be. IAAC also confirmed that it was fine if the information is included in the IS. Kinross understands this and confirmed that the effects assessment (modelling etc) will occur during the IS (not during the planning phase). • Kinross also confirmed that benchmarking with othered TISG for mining have been completed and the approach is in-line with other mining projects. • Preliminary feedback from IAAC is provided below (IAAC noted that it may not be possible for IACC to provide feedback in writing): • **Net Zero** - reaching net zero by 2050/carbon sinks/alt technologies. More detail on how net zero will be reached – steps to get there (eg. potential technologies that could be considered). Kinross will consider this. • **Air quality** – the response in the summary of issues is not carried forward in section D.7.1. Kinross will update this. • **Cumulative effects** – update response to confirm that this is not just considering the Great Bear Project, but other industries in the area too (past/preset/reasonable foreseeable). Kinross will upate this. • **Accidents and Malfunctions** – provide a high level overview of the potential accidents (e.g., spills) and key mitigations. Kinross will consider this. • **Alternative Means** – what methodologies were used to assess alternative means and the technoclogies that are technically feasible (e.g., why was only open pit rejected and why only UG was rejected and then why a combined approach was selected – economic and techcal feasibility). Kinross will update this. • **Archaeology** - In DPD indigenous and public engagement section – discrepancy in DPD vs summary of issues – Stage 2 is ongoing (DPD says it has been completed).

	Align responses. Kinross confirmed Stage 2 is completed and a Stage 3 will be completed. Kinross will update this. • **General Comments**: • Species at Risk and species of inidgnous importance – ensure that this will be discussed with GNFN. Kinross confirmed that have requested this and they will continue to work with GNFN as the project progresses. • Have baseline studies been done for Moose? Kinross confirmed baseline has been complete. A summary of the baseline is included in the DPD. • In the front end of the DPD (p12 of PDF, table B1) there is a summary table with a cross reference to appendices. Consider removing this table to avoid confusion and direct the reader to the appendices. Kinross will remove this. • The geospatial data – ensure that the geospatial data is provided with the final (as per the guidance document). Kinross will provide this.
4.0	**Closing Remarks** • December 2023 submission for final DPD was confirmed by Kinross – Kinross will follow up with a specific target date. • IAAC noted that where possible consider avoiding public comment periods during busy time for Indigenous communities.

Prepared by: FC

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

March 6, 2024

Attention: Minister George Pirie (Minister of Mines) (minister.mines@ontario.ca)
99 Wellesley Street West
Room 5630, Whitney Block
Toronto, Ontario M7A 1W3

Attention: Anjala Puvanathan (Director, Ontario Region) (greatbear@iaac-aeic.gc.ca)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario M5J 1R7

Attention: Aaron MacDonell, Director of Environmental Services
(aaron.macdonell@kinross.com)
Mac Potter, External Relations Manager (mac.potter@kinross.com)
Great Bear Resources Ltd. A Kinross Company
104 Howey Street
Red Lake, Ontario P0V 2M0

Boozhoo MINES, IAAC, Kinross and Great Bear Resources:

RE: The Great Bear Gold Mine Project

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or "Grassy Narrows First Nation"), we write to share with you Grassy Narrows' preliminary position with respect to your activities in relation to the Great Bear Gold Project.

The Project will have an adverse impact and requires an impact assessment

Grassy Narrows is deeply concerned by the Great Bear Gold Project being pursued by Kinross and Great Bear Resources with support from the Ministry of MINES as well as the process recently begun by the Impact Assessment Agency of Canada (IAAC).

Decades of industrial activity, authorized and encouraged by Ontario and contrary to Grassy Narrows' will, have led to well-documented and extensive harm to our Territory, our way of life, our rights, and our health. As a result, our people suffer intensely from impacts including premature death, disease, poverty, and suicide.

The Great Bear Gold Project falls within the area that Grassy Narrows people have historically and currently use for the exercise of our rights and way of life. It is also upstream from our community. Pollutants in the water and impacts on the surrounding land, fish and wildlife will have a direct impact upon us and could also exacerbate mercury contamination in our waterways.

ANA has repeatedly and clearly communicated with the Crown and the mining industry that our people are in crisis, the environment which supports us is severely impacted, our health is failing. The cumulative impacts continue to significantly interfere with our treaty, Aboriginal and inherent rights.

The Great Bear Gold Project will have an impact upon areas that Canada claims as within federal jurisdiction, such as species at risk, fisheries, waterways and Indigenous peoples. Grassy Narrows asserts that the IAAC must conduct an impact assessment in the circumstances.

The Crown's outstanding obligations to Grassy Narrows should be resolved in a nation-to-nation process.

For many years, ANA has written to Ontario to invite the Crown to a government-to- government table to address fundamental issues between us, including the Crown's unmet obligations to us about our rights, our land, our self-determination, and the impacts of industry and government policy on our land and people. These issues have been unresolved between our governments for many decades. Reaching agreement in good faith through a government-to-government table is the way to resolve these important issues and to put in place effective measures to protect us from further harm.

Ontario and Canada have yet to accept this invitation. Most recently, by letter dated November 27, 2023, Ontario explicitly refused to participate in a table to discuss "jurisdictional issues" raised and rejected nearly all of the issues proposed by ANA including most of those related to mining.

Instead, Ontario has explicitly recommended that mining companies explore on and around our Territory, has unilaterally granted roughly 6,000 mining claims on our Indigenous Protected and Conserved Area, and allowed companies to pursue increasingly advanced work towards mines that pose a serious threat to Grassy Narrows. This activity has occurred without our consent, without meaningful consultation and accommodation, and usually without even prior notice under the antiquated "free entry" mining regime.

Grassy Narrows' concerns about the process

Until recently, the Crown and the companies associated with the Great Bear Gold Project have shown little willingness to meet with us, nor respond substantively to many of our communications. Indeed, we have only recently learned that the Crown and companies provided notice to other Indigenous Nations of permit applications concerning the Great Bear Gold Project

as early as 2017 and have signed Advanced Exploration Agreements with Wabauskang and Lac Seul First Nations. In contrast, Ontario approved a number of permits without notice of any kind to Grassy Narrows.

Now that gold has been found, the Crown and Kinross are suddenly interested in giving the appearance of consulting with us, but only to the extent that it furthers the already advanced plans, made without Grassy Narrows' involvement, to develop an industrial gold mine in our headwaters.

Even if Ontario had complied with its own laws, Ontario's "free entry" mining exploration and mine development process is not the correct way to make key decisions between our two governments. This process is deeply unfair and biased in the favour of multi-billion-dollar mining companies. It ignores our laws, our vision for our land and people, and our processes for making decisions affecting our territories.

Our ongoing and urgent crisis leaves us unable to meaningfully engage about mining. To make matters worse, we receive no support from Ontario to inform ourselves, gain technical and legal advice, and to engage in a fair way about mining. The IAAC has offered a mere $5,000 in capacity funding to respond to a 100-page technical Initial Project Description and the funding was made available only after the submission deadline for comments has passed.

The path to reconciliation

We are on a healing journey to recover from the extreme damage that colonization, and attempted forced assimilation have done to our people, including through the imposition of Crown policy and regulatory schemes related to residential schools, dams, relocation, mercury contamination, child apprehension, industrial logging, and mining. We need to allow the land to heal because healthy land will help to heal our people. This is what reconciliation means to Grassy Narrows. Let us protect our land and water so that we can heal our people.

The boom in mining exploration in our area is causing great anxiety and fear among our people. It is setting back our healing. If the Crown decides to allow mining, and the risk of further pollution and other impacts, there will be more heartache, sickness and loss for our people. This mining activity will only lead to more grassroots resistance, litigation, and public controversy over conflict minerals. It will take the relationship between the Crown and Grassy Narrows further away from the path of healing and reconciliation.

Grassy Narrows says 'no' to the Great Bear mine and related activities.

We strongly urge the Crown and your companies to reconsider your unilateral and bullying approach to pushing mining activity on our First Nation. We urge you to seize this opportunity to set a course for a future that is free of conflict over mining in Ontario.

We call on the Crown and your companies to respect the healing path for Grassy Narrows and not to further impair the exercise of our constitutionally protected Aboriginal and treaty rights, our inherent Indigenous rights, our health, and wellbeing.

Grassy Narrows provides preliminary comment on the project under duress

We know that Ontario and Canada will move ahead with approvals for damaging mining activity if we do not speak up. For that reason, we are writing to you under duress to express our preliminary concerns about this project before it advances any further. These serious concerns with both how the project has been pursued and the impacts on our rights and interests, are set out in the attached document. These submissions are by necessity preliminary in the absence of capacity and support to conduct our own studies and obtain expert technical advice.

Please ensure that you copy our Land Protection Team on all communications on this and related matters.

Awsa,

Asubpeeschoseewagong Anishinabek (Grassy Narrows First Nation) Chief and Council (quorum of three)

Chief Rudy Turtle

Councillor Sherry Ackabee

Councillor Bear Copenace

Councillor John C. Kokopenace

Councillor Arnold Pahpasay

cc:

Grassy Narrows Lands Protection Team
Joseph Fobister, Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Supervisor (mike.fobister@googlemail.com)
Dan Mossip-Balkwill, Advisor (dan.mossip.balkwill@gmail.com)

David Sone, Advisor (david.sone@gmail.com)
Jackie Esmonde, Legal Counsel (jesmonde@cavalluzzo.com)

Ontario Ministry of Mines
Susanna Laaksonen-Craig (deputy.mines@ontario.ca) (Deputy Minister, MINES)
Patrick Barnes (patrick.m.barnes@ontario.ca) (MINES Consultation and Aboriginal Treaty Rights Advisor)
Neal Bennett (neal.bennett@ontario.ca) (MINES Acting Regional Manager Thunder Bay Office)
Teri McDonald (teri.mcdonald@ontario.ca) (MINES Indigenous Consultation and Partnerships Branch)

Ontario Ministry of Natural Resources and Forestry
Minister Graydon Smith (minister.mnrf@ontario.ca)
Drew Vanderduim (deputy.mnrf@ontario.ca) (Deputy Minister MNRF)

Ontario Ministry of Indigenous Affairs
Minister Greg Rickford (minister.indigenousaffairs@ontario.ca)
Shawn Batise (shawn.batise@ontario.ca) (Deputy Minister, Ontario Ministry of Indigenous Affairs)
Emily Vassos (Emily.vassos@ontario.ca) (Chief of Staff, Minister's Office, Ontario Ministry of Indigenous Affairs)
Candice Telfer (Candice.telfer@ontario.ca) (Acting Assistant Deputy Minister, Negotiations and Reconciliation Division)

Ontario Ministry of Environment Conservation and Parks
Minister Andrea Khanjin (minister.mecp@ontario.ca)
Serge Imbrogno (serge.imbrogno@ontario.ca) (Deputy Minister)

Crown-Indigenous Relations
Minister Gary Anandasangaree (gary.anandasangaree@rcaanc-cirnac.gc.ca)
Valerie Gideon (valerie.gideon@rcaanc-cirnac.gc.ca) (Deputy Minister)
Rob Wright (rob.wright@rcaanc-cirnac.gc.ca) (Associate Deputy Minister)

Indigenous Services Canada
Minister Patty Hajdu (ministresa-ministeris@sac-isc.gc.ca)
Gina Wilson (gina.wilson@sac-isc.gc.ca) (Deputy Minister)
Michelle Kovacevic (michelle.kovacevic@sac-isc.gc.ca) (Associate Deputy Minister)
Julia Gregory (julia.gregory@sac-isc.gc.ca) (ISC, Policy Analyst; Lands and Economic Development)

Canada - Ministry of Environment and Climate Change
Minister Steven Guilbeault (steven.guilbeault@parl.gc.ca) (Minister of Environment and Climate Change)
Jean-Francois Tremblay (JF.Tremblay@ec.gc.ca) (Deputy Minister)
Lawrence Hanson (Lawrence.Hanson@ec.gc.ca) (Associate Deputy Minister)

Impact Assessment Agency Canada
Natalie Boyd (greatbear@iaac-aeic.gc.ca) (IAAC, Project Manager)
Ian Lindsay (greatbear@iaac-aeic.gc.ca) (IAAC, a/Senior Consultation Analyst)

Kinross / Great Bear
Aaron MacDonnell (aaron.macdonell@kinross.com) (Kinross Director of Environmental Services)

ANA PRELIMINARY CONCERNS ABOUT THE GREAT BEAR GOLD PROJECT

Table of Contents

I. The Context 8

Who is Grassy Narrows 8

Social and Cultural Impacts of Crown Law and Policy. 8

The Cumulative Effects of the Mercury Crisis and Industrial Activities Impacts. 9

II. Ongoing Breaches of Crown Obligations: The 1978 Memorandum of Understanding, Honour of the Crown, and Fiduciary Duty 11

1978 MOU and Dishonourable Conduct. 11

The Crown's unmet fiduciary duties 12

The Crown's abandonment of negotiations required by the 1978 MOU 12

Ontario has failed to accurately identify the ANA Area of Interest on mining activities. 13

Grassy Narrows Laws Have Not Been Respected. 15

III. The Crown Must Address Capacity Barriers 16

IV. The Great Bear Gold Project: The Crown's failure to inform, meaningfully consult, and gain our consent for project activities. 18

The Great Bear Gold Project falls within Grassy Narrows' Interim Area of Interest for Mining 18

The Crown requires Grassy Narrows' consent for the Great Bear Gold Project 20

Far from seeking consent, Ontario has approved numerous permits for the Great Bear Gold Project with no notice to Grassy Narrows 23

Crown and Company efforts to engage Grassy Narrows since 2022 have been performative and do not meet the standards required for engagement 29

V. Adverse Impacts: ANA Preliminary Specific Concerns 30

Industrial disturbances will release even more mercury into our ecosystem and further impair our Treaty rights. 31

Adverse impacts on Grassy Narrows' Treaty Land Entitlement Claim. 33

On-site Impacts 34

Downstream / wind / migration impacts 34

Landscape impacts (e.g. intact forests) 35

Spiritual Impacts 36

Long-term risks – Tailings 38

Impacts to relationship with the Crown 39

Federally Regulated Impacts 40

Site-specific parameters and guidance levels needed 42
Other specific concerns 44
Failure to Effectively Regulate and Remediate 47
Lack of Protected Areas, Need for Regional Balance. 49
Nature Based Climate Change Solutions 49
VI. Mining activity without Grassy Narrows' consent risks conflict 50
VII. Gold does not justify the impact to Grassy Narrows 51
VIII. A Choice, an Opportunity 52

I. The Context

Who is Grassy Narrows

Asubpeeschoseewagong Anishinabek (Grassy Narrows First Nation) is an Anishinaabe First Nation with traditional territory in what is called northwestern Ontario. Grassy Narrows people exercise inherent Indigenous rights, and Aboriginal and Treaty rights. We have cared for and lived on our lands for countless generations. Grassy Narrows people hunt, trap, fish and practice our Anishinaabe way of life to provide for ourselves, our families and community.

We exercise our inherent right to self-determination and law-making powers. Our inherent rights are given to us by the Creator. In addition to our inherent rights, Grassy Narrows people exercise Aboriginal rights and established Treaty 3 rights which are protected by section 35 of the *Constitution Act, 1982*.

In 1873, the Anishinaabe adhered to Treaty 3. The Treaty 3 Commissioner promised the Anishinaabe that the Treaty promises would protect our harvesting practices forever, which would allow our people to hunt, fish, trap, gather, and harvest throughout the Territory as they had before "as long as the sun shone and the waters flowed." This promise was more than a continuation of our pre-existing harvesting rights. The Anishinaabe did not agree to the erosion of our harvesting rights.[1]

Our territory is located in the Boreal Shield ecoregion in a mixed forest transition zone from the Great Lakes St Lawrence Forest to the Boreal Forest. The Whiskey Jack Forest is the English name of the forest that covers a large portion of the Territory; the English-Wabigoon River System is a central waterway in the Territory. The land and waterways of the Territory sustain Grassy Narrows peoples' way of life.

Grassy Narrows' Territory is the foundation of who Grassy Narrows people are as Anishinaabe people. We follow the teachings of the Elders to be responsible for the Territory and to *Manaachitootaa Aki* (protect the land).

Social and Cultural Impacts of Crown Law and Policy.

Despite these sacred promises, for many generations the Crown has imposed harmful law and policy on us, including through the *Indian Act*, the banning of our ceremonies, regulation of our hunting and trapping, residential schools, regulation of the wild rice, relocation, the 60s scoop, the underfunding of our schools, inadequate health care, and the ongoing removal of our children from the community.

These policies have caused grave harm to our people and impaired the exercise of our rights. They have undermined our strong society and way of life and have left us more

[1] *Keewatin v Minister of Natural Resources*, 2011 ONSC 4801 [*Keewatin* ONSC], rev'd 2013 ONCA 1158, aff'd 2014 SCC 48 ["*Keewatin* litigation"].

vulnerable to the impacts of industry.

The Cumulative Effects of the Mercury Crisis and Industrial Activities Impacts.

Starting in at least 1962, a chlor-alkali plant in Dryden, Ontario, began discharging mercury into the English-Wabigoon River system. Approximately 9,000 kilograms of mercury were discharged into the river system that flows through our Territory and is a lifeline for Grassy Narrows people. Our live-giving river became a source of invisible poison.

The impacts of the mercury contamination have been devastating to the people of Grassy Narrows and our Territory. The presence of mercury led to the methylmercury contamination of the fish and Grassy Narrows people. The local commercial fishery shut down; Grassy Narrows' economy collapsed; Grassy Narrows people descended into poverty; Grassy Narrows people suffered, as they continue to do, from debilitating health symptoms and premature death; and our Anishinaabe way of life was gravely threatened and changed when we could no longer safely eat fish and exercise our fishing practices as we had before.

In the 1970s and 1980s, Grassy Narrows called on Ontario to respond to the mercury crisis by taking concrete action, including by agreeing that Grassy Narrows would control our Territory. As the river was poisoned, we wanted to have more control over our Territory and the natural resources in it to be able to protect and benefit from the part of our Territory that was still healthy – the land. Instead, Ontario authorized extensive clearcut logging in the Territory from roughly 1980 to 2008, which likely released new, or additional, sources of mercury into the watershed, and increased methyl mercury contamination of fish.

Multiple expert reports and publications have detailed the impacts of mercury contamination on the health of Grassy Narrows people, including the following, which are enclosed:

- 2015 Expert Report of Dr. Donna Mergler
- Grassy Narrows Community Health Assessment Summary Reports, 2018
- Philibert et. al. (2020), "Mercury exposure and premature mortality in the Grassy Narrows First Nation community: a retrospective longitudinal study", *The Lancet: Planetary Health* Vol. 4(4), E141-E148
- Philibert et. al. (2022), "Past mercury exposure and current symptoms of nervous system dysfunction in adults of a First Nation community (Canada)" *Environmental Health* 21:34.
- Mergler. D. et. al. (2023), "The Contribution across Three Generations of Mercury Exposure to Attempted Suicide among Children and Youth in Grassy Narrows First Nation, Canada: An Intergenerational Analysis" *Environmental Health Perspectives* 131(7).

These reports highlight the grave impacts of mercury on the health and wellbeing of

Grassy Narrows. They establish that Grassy Narrows people cannot withstand further impacts from the release of new mercury into Grassy Narrows' land, lakes, rivers, fish, and people, nor an increase in the net methylation of existing mercury. Our rights have already been highly compromised by the mercury crisis. Our nation cannot withstand further infringements of rights. No further impairment of our rights, our health, and our wellbeing can be justified.

Our fish in the Wabigoon River remain the most mercury contaminated in the province. Our people of all ages continue to suffer from mercury related diseases and loss of wellbeing. Our employment remains far below what it was in the 1960s following the collapse of our subsistence, sport, and commercial fishery due to mercury.

The mercury crisis is but one in a long series of industrial attacks which have been imposed on us against our will. These include the damming of our rivers, industrial logging, and mining activity. Each of these industrial attacks has had grave impacts on its own. In addition, each of these industrial attacks has compounded the existing harm that remains from previous attacks, creating unbearable cumulative impacts, thereby prolonging, and exacerbating our inter-generational crisis.

These extreme and compounding industrial impacts have been authorized and encouraged by the Crown without any serious consideration of their cumulative effects on Grassy Narrows and the exercise of Grassy Narrows' rights. We have raised clear concerns since at least the 1970s that our environment, rights, way of life, and our health, were at or beyond, the breaking point due to the impacts of industry on the resources on which we have heavily relied for our wellbeing, livelihood and the viability of our community. In the 1980s, and again in 2007, we declared moratoria on further industry on our Territory so that we could heal our people and rebuild our independence and wellness.

And yet, to this day, with respect to our Territory and vicinity, Ontario has failed to increase our control and use, failed to conduct a collaborative Landuse Plan; failed to complete a source water protection plan; failed to carry out a comprehensive environmental assessment; and failed to undertake an assessment of cumulative effects. The repeated failures of the Crown to act honourably to resolve the crisis have resulted in serious, compounding adverse impacts over time, including:

(1) Severe cumulative impacts on our territory and Treaty harvesting, hunting and fishing rights, making these rights impossible to exercise in a meaningful way;

(2) Severe adverse health effects and death, including, as found in recent scientific research, high rates of conditions impacting learning in children, disease, suicide attempts, and the premature death of our people; and

(3) Extreme poverty, food insecurity, loss of Anishinaabe way of life, and other poor socio-economic indicators of wellbeing which are ranked significantly worse than average Indigenous communities in Ontario and Canada.

(4) Collective impacts to our society and community.

Ontario ignored our pleas and our moratoria and continued to allow industrial activity, including the granting of mining claims on our Territory against our will, and advancement of mines all around us, without considering how mining activities add to, compound, exacerbate, and prolong previous harms. The cumulative impacts of industry have been devastating. The impacts include, but are not limited to:

- Our river that gives us life remains poisoned.
- Our walleye are unsafe to eat.
- Our sturgeon are rare.
- Our moose are scarce.
- Our caribou are nearly extirpated.
- Our pine marten habitat is depleted.
- Our forests are fragmented.
- Our medicines are tainted.
- Our sacred landscape is desecrated and scarred and traplines have been clear cut.
- Our way of life is diminished.
- Our people suffer from poverty, food insecurity, disease, premature death, and suicide.
- Our inherent, aboriginal, and treaty rights are impaired
- Our health has been harmed.
- We have been discriminated against.

II. Ongoing Breaches of Crown Obligations: The 1978 Memorandum of Understanding, Honour of the Crown, and Fiduciary Duty

Ontario and Canada (collectively, the "Crown") are our treaty partners. As elaborated below, through the treaty relationship and Crown actions over time, including entering into legal agreements following the start of the mercury crisis, the Crown assumed obligations and duties owing to Grassy Narrows. The Crown must uphold the treaty promises, uphold terms of its agreements, and act honourably in its dealings with Grassy Narrows.

Authorizing and permitting mining activities in our territory without our consent violates Ontario's and Canada's outstanding obligations and duties to Grassy Narrows and violates the Crown's duty to act honourably in all its dealings with Grassy Narrows.

1978 MOU and Dishonourable Conduct.

In 1978, Ontario and Canada signed a Memorandum of Understanding with Grassy Narrows in which the Crown committed to resolve in good faith the impacts of mercury on the environment that Grassy Narrows people rely upon for the viability of our community, and the related health, social, economic, cultural, and environmental impacts on the people of Grassy Narrows ("1978 MOU"). It was agreed that the issues would be resolved through a combination of financial compensation and land, and

furthermore in a manner that would enhance Grassy Narrows' self-determination, self-sufficiency, and control over local affairs wherever possible.

Some agreements were reached that partially implemented some of the 1978 commitments. For example, agreements were reach with Canada in 1984 and with Canada, Ontario and the mercury polluters in 1985.

However, the Crown has outstanding obligations owing under the 1978 MOU. These outstanding obligations include (but are not limited to) increasing Grassy Narrows' access to, protection of, and control over lands and natural resources in our Territory.

Moreover, the Crown has engaged in a course of dishonourable conduct before, during the negotiations, and since, and has consequently failed to meaningfully support Grassy Narrows' recovery from the mercury crisis.

The Crown's unmet fiduciary duties

The Crown and Grassy Narrows have a *sui generis* fiduciary relationship, and our treaty rights attract fiduciary obligations. In the time since the Crown and Grassy Narrows entered into a treaty relationship, the Crown seized functional management and control of our lands and water. The Crown assumed a duty to Grassy Narrows when exercising that control over our Indigenous interests including our pre-existing legal interests in exercising our fishing, hunting and trapping rights and other traditional practices such as medicine gathering and wild rice picking.

Grassy Narrows has been at the mercy of the exercise of Ontario's imposed fiduciary decision-making over our land as Ontario unilaterally authorized industrial activity, and otherwise has made decisions that affect the land, water and other natural resources of our area which we rely on to exercise our rights, practice our way of life, and maintain our health.

Under imposed Crown management and discretionary control, the health of our land and our people have seriously declined, our way of life has been degraded, and the exercise of our treaty rights has been impaired.

The Crown's abandonment of negotiations required by the 1978 MOU

From the outset of our discussions under the 1978 MOU, Grassy Narrows was clear that to recover from the impacts of mercury and other harms, we need Crown recognition of Grassy Narrows' ownership, control, and protection of a large part of Territory, which will allow Grassy Narrows to make decisions with respect to our land that support our way of life and our livelihood. In the 1970s, 1980s, and 1990s Ontario committed to negotiate increased Grassy Narrows control over our lands, in addition to providing meaningful compensation for our people.

In the 1980s, and since, we called for a moratorium on industrial activity in our Territory until our negotiations with Ontario were concluded. However, rather than honour this moratorium, the treaty promises, and the 1978 MOU obligations, Ontario unilaterally

abandoned the negotiations in the mid 1990s and exercised its imposed control in a way that further unleashed industry on our area to our detriment.

Ontario has repeatedly acted unilaterally to encumber and degrade our Territory against our will, including by granting industrial logging licenses and nearly 6,000 mining claims; industrially logging our forests; and constructing industrial access roads and bridges (e.g. The Separation Lake Road and bridge) to facilitate further resource extraction and environmental degradation. Canada has stood by and watched, allowing our lands, waters, rights, and way of life to be trampled.

The Crown's dishonourable conduct and abandonment of its fiduciary obligations continue. Ontario's Ministry of Mines has granted thousands of mining claims against our will, including granting mining exploration permits without any prior notice to us.

Ontario has failed to accurately identify the ANA Area of Interest on mining activities.

The Ontario Ministry of Mines has never meaningfully addressed the question of the extent of Grassy Narrows' area of interest with respect to mining.

In the 1980s, the Ontario Ministry of Natural Resources created its own map to identify a Grassy Narrows Traditional Land Use Area (the "1980s TLUA Map") for the purposes of mediated negotiations between Grassy Narrows and Ontario with respect to a section of the Territory required by Grassy Narrows to restore its economic self-sufficiency. The map used straight lines, which are not reflective of the boundaries of the full Territory and does not include the northern portion of the Territory.

Between 2008 and 2017 Grassy Narrows and Ontario engaged in discussions on forestry pursuant to the Grassy Narrows Ontario Process Agreement (the "Process Agreement"). As part of that process, Grassy Narrows submitted a map of the "Grassy Narrows area of interest for forestry", which included areas that are outside the 1980s TLUA Map boundaries.

When Grassy Narrows passed our Land Declaration in 2018, we shared a map of an area we have identified as the "Indigenous Protected and Conservation Area" (IPCA). The IPCA boundaries mirror part of the area of interest for forestry. The IPCA boundaries have always been provisional, as Grassy Narrows continues to engage in a process of reviewing the knowledge of our historical and current land use. In addition, the western notion of linear boundaries on maps conflicts with our Indigenous knowledge systems, which are based on relationships and complex webs of protection, use, kinship, sharing, travel and trade that do not begin and end at a line.

Shockingly, Ontario relied on the 1980s TLUA Map as the consultation area for mining, despite having knowledge that the map was not accurate.

Grassy Narrows is currently pursuing litigation challenging nine mining exploration permits (not related to the Great Bear Gold Project) that Ontario approved without

notice to Grassy Narrows.[2]

Among other relief, Grassy Narrows seeks the following remedies in the litigation:

> a declaration that Ontario cannot consider mining activities in the subject area of the Territory, including issuing exploration permits, until the parties negotiate and reach agreement on **timely enforceable mechanisms to assess and manage the cumulative impacts of mining, logging, hydro-electricity projects, other industrial development, mercury contamination, and governmental policies or programs that may infringe Grassy Narrows' treaty rights, and to ensure that these constitutional rights are respected**;

These mechanisms are not yet in place and the judicial review remains unresolved.

As further described below, Grassy Narrows has only very recently learned that the Ministry of MINES approved a number of permits for the Great Bear Gold mine with no notice to Grassy Narrows.

It is only in very recent times, and after much conflict, that Ontario has begun to ask Grassy Narrows about what our area of interest for mining is. After many years of advocacy by Grassy Narrows, Ontario's Minister responsible for mines finally responded on November 1, 2022 with a new map that Ontario proposed as the area for consultation on mining related activities.

Ontario's proposed consultation area on mining appeared to deliberately carve out the Great Bear Project Area. The information provided by Ontario to explain how they arrived at the proposed boundaries was cursory and insufficient for understanding how the boundaries were arrived at. Grassy Narrows informed the Ministry that their proposed map is not complete and requested capacity support to do the work necessary to respond. However, no support has been provided to date.

On November 2, 2023, Grassy Narrows provided two versions of a map setting out our Interim "Area of Interest" for mining. The maps differed in scale only. The map was provided with the following cautions:

- The maps are an interim product created under duress arising from the escalation of imposed mining activity by the Crown and industry and for the sole purpose of identifying an interim area for negotiations on mining related activity.

- The maps are not a complete representation of Grassy Narrows' area of interest. Due to the unique circumstances and capacity constraints, Grassy Narrows has not completed comprehensive studies required to fully determine its area of interest including, but not limited to, land use and occupancy, ethnohistory, archaeology, biology, and hydrology. For example, rights and interests

[2] Grassy Narrows First Nation v. Director of Exploration, Ministry of Northern Development, Mines, Natural Resources and Forestry, Ontario Divisional Court File No. 881/21.

associated with air quality, migratory birds, travel routes, marten, lake sturgeon, wolves, eastern cougar, landscape intactness, climate resilience, biodiversity, genetic diversity, and many other factors are not reflected in these maps.

- In addition, linear boundaries are an imposed non-Indigenous concept that do not accord with the nature of Grassy Narrows' relationship with the land which includes extensive interconnectedness, reciprocity, travel, sharing, and trade.

- These maps do not limit any claims by Grassy Narrows people to assert their rights and interests throughout their territory and to protect themselves from harm to their health, rights, way of life, livelihood, society, and environment. Grassy Narrows people have Treaty rights, and practice them, throughout the Treaty 3 area. Grassy Narrows people also have inalienable inherent rights given by the Creator, some of which are affirmed in international law and instruments. The Grassy Narrows people are the true experts about their land, rights, and interests.

<u>The Great Bear project area falls within the core area of Grassy Narrows' Interim Area of Interest for Mining map.</u>

Despite Grassy Narrows' efforts to further these negotiations, there is no agreed upon area for consultation on mining activities.

Sharing of information about our Homeland is a sensitive topic that requires deep trust. After so many decades of having our trust, our vulnerability, and our lands abused by Ontario, many of our knowledge holders do not consent to sharing sensitive lands information with Ontario. Trust must be rebuilt to meaningfully engage on this topic.

Grassy Narrows Laws Have Not Been Respected.

Neither the Crown nor the companies have formally acknowledged and respected Grassy Narrows' moratorium and Land Declaration. The Crown has not joined us to harmonize Crown law with Grassy Narrows law and to find a path forward towards reconciliation that provides space for Grassy Narrows' inherent Indigenous rights and constitutionally protected Aboriginal and treaty rights to be meaningfully realized and protected.

We have written many times to request that the Crown come to a senior negotiation table with Grassy Narrows to address the wrongs committed against our people, the effects of which continue to this day, and to prevent further damage. We call on Ontario to return to the mediation process first established in 1978 in response to the mercury disaster to finally reach an honourable agreement regarding the control and protection of our Territory and fair compensation for Grassy Narrows people.

Instead of coming to the table to honourably resolve outstanding issues and obligations, Ontario has unilaterally granted mining claims and permits and now is supporting the development of a gold mine in our headwaters.

III. The Crown Must Address Capacity Barriers

Grassy Narrows has repeatedly advised both the Crown and the Companies that it cannot meaningfully engage in negotiations while it faces significant and unique barriers.

1) Insufficient information: Upon learning of the Great Bear Gold project, Grassy Narrows immediately requested additional information about the project and the extent to which our Laws had been taken into account and its adverse impacts considered. This information is essential for us to understand and respond to any efforts at engagement. After a lengthy delay, the Ministry recently provided responses that can only be characterized as preliminary and partial.

2) Capacity funding: The process of evaluating proposed mining activities and engaging with MINES, the IAAC, and mining companies comes at an expense to ANA. We must hire staff, engage our community, carry out our governance process, and obtain professional support from experts, lawyers, and advisors to engage in a meaningful way.

Grassy Narrows is even more impoverished than our First Nation peers due to the ongoing impacts of mercury poisoning. We lack the funds required to engage in an informed and fair way.

During the summer of 2023, MINES staff indicated that, after many years of requests, MINES will fund some ANA capacity needs. We provided MINES with a document summarizing the kinds of capacity supports that we would need in order to meaningfully engage on mining, including compensation for staff and to hire experts. After many months of awaiting an update, on November 27, 2023 MINES clarified that its promises of capacity supports amount only to funding in an unspecified amount for a “Mineral Development Advisor”, a position that Grassy Narrows has never requested funding for.

No funding is currently in place. MINES must come to the table on our issues and commit to funding ANA’s reasonable costs of engaging in an informed and fair way.

While IAAC offered $5,000 in capacity funding to ANA, this funding was offered after the deadline for submissions on the List of Issues. The amount offered is insufficient to meaningfully review lengthy technical documents that engage many areas of expertise, to engage with our people, to carry out our governance process, and to prepare a response. This is the same on-size-fits-all funding offered to other First Nations, NGOs, and other ‘stakeholders’. It does not consider our unique circumstances nor our position as an Indigenous nation.

3) Pandemic Considerations: COVID-19 infection rates, as well as other respiratory illnesses in this region of Ontario are high again. Our people are especially vulnerable to disease because of our high pre-existing rates of co-morbidity, crowded and inadequate housing, inadequate nutrition due to food insecurity, and the immune impacts of mercury. The health of our people is our priority. We are informing you that, in addition to our other concerns, mining exploration proposals are unwelcome during outbreaks

and other public health emergencies.

4) Mercury Crisis and Industrial Impacts: Our territory has already experienced a great deal of harm from industrial activities including mercury, damming, industrial logging, and mining. The cumulative effects of these industrial impacts have already passed the point of an unreasonable, unjustifiable impact on the exercise of our Treaty rights, and on our health and wellbeing. As a result, our community suffers from unusually high rates of conditions including poverty, food insecurity, disease, neurological conditions, conditions affecting learning, premature death, and child and youth suicide. The social conditions created by mercury poisoning and the cumulative impacts of industry place us in an ongoing extreme crisis. As a result, we are unable to meaningfully engage on mining exploration in the absence of the necessary supports to resolve and recover from the ongoing mercury crisis.

5) Fundamental outstanding issues must be addressed before meaningful engagement can occur: As described above, many fundamental issues remain unresolved between Grassy Narrows and the Crown including unmet obligations, broken promises, conflicting laws, cumulative impacts, violated trust, justice owed, and outstanding reconciliation. These are upstream strategic issues to which individual mining projects are subsidiary. We cannot address one mining project meaningfully, when the fundamental questions are not addressed. These questions include:

- How will the Crown respect Grassy Narrows' inherent rights and rights recognized under international law and related instruments?
- How can the Treaty relationship between the Crown and Grassy Narrows be respected and restored?
- How can the written text of the Treaty be reconciled with the oral and written histories, and Ontario Superior Court findings, that the taking up clause and the cede and surrender clause were never discussed nor agreed to?
- Who has decision making authority over lands and resources in our area?
- How can Grassy Narrows law and Crown law be harmonized with respect to the land?
- What lands should be open to mining and what lands should be protected?
- How will the Crown's unmet obligations arising from the Treaty, the 1978 MOU, and other sources be fulfilled?
- How will Grassy Narrows' ownership, control, and use of our lands be increased as promised?
- How can the damage already done to our land and our water be restored?
- How can the harm to our sacred landscape, our spirituality, and our relations be repaired?
- How can we assess and prevent the cumulative impacts of industrial activity from further harming us?
- How can the collective damage to our society, our community, and our families be reversed?
- How can our health, our wellness and our way of life be returned to its former status?

- How can our self-determination, our independence, and our self-sufficiency be rebuilt?
- Is it possible to reconcile while the harm continues, while we bury our youth?

For many years we have been seeking to resolve important issues with the Crown that relate to mining. A summary list of some of these issues can be found at **APPENDIX A**.

The Crown apparently has little interest in these questions and little willingness to address them with us, to act honourably, nor even to come to the table with us about them. When we meet with senior officials from MINES and MNRF, they tell us that they have no mandate to discuss these issues, but they will bring them to the Minister.

After years of seeking a meeting with the Minister our then Chief and Council finally met with then MNDMNRF Minister Rickford in Toronto on November 18, 2021. At the long-awaited meeting Minister Rickford refused to discuss our mining concerns but promised to come to Grassy Narrows soon to discuss mining at an open forum in our community. Neither Minister Rickford nor his successors have honoured this promise.

In a largely analogous situation where Grassy Narrows and the Crown had a conflict over a different form or resource extraction, the 2004-2009 Whiskey Jack Independent Forest Audit found that:

> There are fundamental differences in the viewpoints between GNFN and MNR regarding forest management principles and practices. It is the audit team's opinion that these differences cannot be resolved without the Province setting aside many of the requirements to manage the Whiskey Jack Forest under the CFSA and the FMPM, and relinquishing significant authority to the First Nation to manage portions of the Whiskey Jack Forest according to the desires of the GNFN community. The audit team further believes that the forest management planning process did not anticipate, nor was it designed to resolve the type of dispute currently being experienced on the Whiskey Jack Forest.

Similarly, the *Mining Act* and its regulations and the IAAC regulations did not anticipate, nor were they designed to resolve the serious grievances, outstanding obligations, and the type of dispute currently being experienced over mining around Grassy Narrows. Resolving this dispute will require sincere, honourable, government-to-government engagement on the fundamental issues that have brought us to this point. Only once that occurs, can we meaningfully engage about specific permits and projects without repeating and exacerbating the legacy of past and ongoing harms.

IV. The Great Bear Gold Project: The Crown's failure to inform, meaningfully consult, and gain our consent for project activities.

The Great Bear Gold Project falls within Grassy Narrows' Interim Area of Interest for Mining

We have enclosed a copy of Grassy Narrows' map of our Interim Area of Interest for Mining, which is described above.

The limited preliminary research that we have been able to conduct confirms that the Great Bear Gold Project is within the area where Grassy Narrows people have historically, and continue to, practice our way of life and our Treaty rights.

There is strong ethno-historical evidence that Grassy Narrows has a longstanding connection to this area dating back to the time of the Treaty and before. This includes historical reports, fur trade records, ethnological work, and other records. Grassy Narrows First Nation historically hunted, fished, trapped, collected plants, gardened and conducted spiritual practices in and around the Red Lake fur trading routes, and traded products obtained in the area.

There are Grassy Narrows families with continuing family ties to this area and the surrounding areas. Grassy Narrows people, including the Chief, continue to practice our inherent and Treaty rights in this area, including the moose hunt. The moose hunt is extremely important to our way of life and sustenance. Due to the precipitous decline in moose elsewhere in our area, the area south of Red Lake is one of the only remaining productive moose hunting grounds that our people use.

The Great Bear Gold Project falls within moose, wolverine and caribou habitat that ranges within our IPCA. In addition, walleye within the project area migrate to the waterways on which Grassy Narrows exercises its treaty rights to fish and on which the community reliese for food. The project area is also within nearby quatermary watersheds that flow into the IPCA.

Grassy Narrows people fish extensively on the English River around Grassy Narrows. Grassy Narrows people also fish on the English River and its tributaries near the inflow of the Chukuni River. We are aware that the fish that we eat swim a distance of 30 km, or more, up and downstream in the course of their lifecycle and are exposed to, and bioaccumulate, toxins throughout their travels. In particular, our walleye travel long distances upstream in order to spawn.

Caribou are an important clan animal to Grassy Narrows and used to be seen throughout our Territory. The Great Bear Gold Project area is within the range of the Sydney Caribou herd, the last remaining herd in our Territory. This range is already degraded beyond the threshold at which it is able to sustain Caribou in the long term, unless its intactness is restored. All of the habitat within the range is considered critical.

As noted above and confirmed by the Supreme Court, the Treaty 3 Commissioner promised the Anishinaabe that the Treaty promises would protect our harvesting practices forever which would allow our people to hunt, fish, trap, gather, and harvest throughout the Territory as they had before “as long as the sun shone and the waters flowed”. The Anishinaabe did not agree to an increasing erosion of our harvesting rights that would significantly interfere with the exercise of our rights.[3]

---

[3] *Keewatin v Minister of Natural Resources*, 2011 ONSC 4801 [*Keewatin* ONSC], rev’d 2013 ONCA 1158, aff’d 2014 SCC 48 [“*Keewatin* litigation”].

Grassy Narrows has a communal connection, right, and interest in this area. It is possible that other First Nations do too, but that does not in any way diminish our own connection, rights and interests nor the Crown's obligations to us.

In addition, Grassy Narrows must be consulted on activities that may have off-site impacts on our territory, such as downstream, downwind, or migratory species impacts. Grassy Narrows continues to document the full extent of its Territory and the "ANA Preliminary Area of Interest With Respect to Mining" is without prejudice to the determination of the full geographical extent of Grassy Narrows' Territory.

The Crown requires Grassy Narrows' consent for the Great Bear Gold Project

The standard that correctly applies to this project is the right to say 'no', also known as the right to give or withhold "free prior and informed consent."

Under Grassy Narrows law, we are the first people of this land. The Creator gave us this land and only the Creator can take it away. We live in relationship with the land; we care for it and the land provides for us. We must take care of the land and not disrupt this balance. Nothing that threatens this balance may take place on the land without our permission. We say no to mining.

The United Nations has recognized this right in the *UN Declaration on the Rights of Indigenous Peoples* and in other international laws and instruments to which Canada is a signatory.

The *Declaration on the Rights of Indigenous Peoples* requires States to consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them (article 19). This includes:

- The adoption of legislation or administrative policies that affect indigenous peoples (article 19)
- The undertaking of projects that affect indigenous peoples' rights to land, territory and resources, including mining and other utilization or exploitation of resources (article 32).

The principle of free, prior and informed consent is linked to treaty norms, including the right to self-determination affirmed in common Article 1 of the International Human Rights Covenants. When affirming that the requirement flows from other rights, including the right to develop and maintain cultures, under article 27 of the International Covenant on Civil and Political Rights (ICCPR) and article 15 of the International Covenant on Economic Social and Cultural Rights (ICECSR), the treaty bodies have framed the requirement also in light of the right to self-determination.

Canada is bound by international law to these abide by these standards.

While Crown law has often failed to adequately implement international human rights standards, and often seeks to take a reductionist view of its international obligations to us, even under Crown law our consent is required for this project for reasons including, but not limited to:

a) The cumulative impacts of Crown policy and industry on our people already exceed any reasonable threshold of impact on our rights, our way of life, our people, and our environment. No further impacts can be made without consent.

b) The Companies' goal is to open a gold mine. A recent study demonstrated the extensive impacts of metal mining contamination on rivers and floodplains across the world, with an estimated 23 million people believed to be affected by potentially dangerous concentrations of toxic waste.[4] Gold mines have high risk of impact to our well established and strong rights, including our rights under Treaty #3. Our waters are already contaminated with mercury. Therefore, we are at the high end of the consultation spectrum where consent is required.

c) The "taking up" clause and the "cede and surrender" clause which the Crown relies on for its asserted legal authority were never explained, translated, discussed, nor agreed to, during the negotiation of Treaty #3. This is reflected consistently in the multiple, independent, written records of the Treaty negotiations. To the contrary, Treaty Commissioner Simon Dawson informed the legislature that "As an inducement to the Indians to sign the Treaty, the commissioners pointed out to them that, along with the land reserves and money payments, they would forever have the use of their fisheries. The point was strongly insisted upon and it had great weight with the Indians, who for some years previously had persistently refused to enter into any Treaty" (NA RG 10 vol 3800 file 48542, 28 May 1888). The Ontario Court of Justice found that the Indigenous signatories to Treaty 3 were not advised and did not understand that the Crown could authorize land uses inconsistent with Harvesting Rights and pass legislation to extinguish or limit Harvesting rights. They expected that Canada would protect their harvesting rights away from the Dawson Route or CPR right or way, not limit, extinguish or ignore them.[5] No court of appeal, including the Supreme Court of Canada has overturned this finding of fact.

Beyond the requirements under Grassy Narrows Law, International Law, and Crown Law to obtain consent in these circumstances, there is the simple practical requirement for consent in today's business, investment, and political environment.

The business case for obtaining consent is reflected in the mining industry's own trade association policies through the International Council on Mining & Metals (ICMM) position statement on Indigenous Peoples and Mining, which states that "[t]he outcome

---

[4] Phys.Org (September 21, 2023), "Global study reveals extensive impact of mining contamination on rivers and floodplains."

[5] Keewatin v. Minister of Natural Resources, 2011 ONSC 4801 (CanLII), at para 865, <https://canlii.ca/t/fmzc4#par865>, retrieved on 2023-09-23

is that Indigenous Peoples can give or withhold their consent to a project, through a process that strives to be consistent with their traditional decision-making processes while respecting internationally recognised human rights and is based on good faith negotiation."[6]

Even Barrick Gold, infamous for their violations of human rights internationally, stated in their $100M statement of claim against Red Lake Gold when addressing the need to for Grassy Narrows' consent that:

> Virtually all successful mining ventures in Canada require a strong and genuine working relationship with local communities, including First Nations. Without such a relationship, it can be extraordinarily difficult, if not impossible, to proceed with a mining venture beyond early stage exploration work and into development work (e.g., by constructing a working mine).
>
> Strong, genuine and reliable relationships with First Nations are built on mutual trust and respect. Any perceived or actual breach of that trust or respect can have devastating consequences for a mining venture or company, and these commercial and reputational consequences can extend well beyond any particular project or First Nation group.[7]

No large mine has opened in Canada for decades without Indigenous consent. It is simply too difficult and risky to carry out such an expensive and intensive project without all relevant First Nations on board.

As a First Nation living immediately downstream from this project, we will live with the consequences for many generations to come. It is our children who will drink the water, eat the fish, pick the wild rice, swim, and learn what it means to be *Asubpeeschoseewagong Anishinabek* on this river whose waters will carry the effluent from this gold mine if it is built. It is our people who will search in vain for moose and caribou to hunt on the landscape that has had its forests fragmented and degraded by access roads, clearcuts, seismic lines, pits, trenches, clearings, and mines. It is our people who will be impacted if the tailings dam fails. It is our people who will be poisoned if toxics leach into the water. It is our people whose fear and anxiety, already far to high and fatal due to the mercury crisis, will be heightened by the threat this mining project poses to our wellbeing.

We know, and everyone in Canada who has cared to learn our story knows, that decisions made and activities carried out upstream can have a devastating impact on us. The chlor-alkali plant in Dryden that discharged mercury into the Wabigoon River was 150 km upstream of our village. But the flow of the river does not obey any human boundaries. The distance did not stop the mercury from being carried downstream,

---

[6] International Council on Mining & Metals (May 16, 2013), "Indigenous Peoples and Mining: Position Statement".
[7] Barrick Statement of Claim against Red Lake Gold, 2022/23, p. 20, 21.

bioaccumulating in the fish that we eat, destroying our livelihood, poisoning our people, and dramatically disrupting our way of life. More than 50 years after the discharge of mercury was ordered halted, our mercury crisis rages on. There is no end in sight to the contamination of our river and to the intergenerational impacts of mercury.

The correct standard for this project, which threatens to impact Grassy Narrows' future for many generations, is consent. Grassy Narrows has not given its consent. Grassy Narrows says 'no'.

Far from seeking consent, Ontario has approved numerous permits for the Great Bear Gold Project with no notice to Grassy Narrows

With respect to the Great Bear Gold Project, there has been a failure to inform, to consult meaningfully with ANA and to gain our consent, even though the ANA village site is the first community downstream from the project site. In spite of the infamous pre-existing impacts on the English River and Grassy Narrows from hydro damming, mercury pollution, and clearcut logging, and Grassy Narrows' well knowns concerns about mining exploration. The fact that Grassy Narrows is downstream of this project, potentially impacted, and likely concerned should be evident to any diligent person with access to Google.

Exploration permits for this project date back to January 2017, including permits for extensive exploration work, drilling, stripping of the land, and taking of water. The following permits were authorized without notice to Grassy Narrows and, for the most part, prior to any communications from either the Crown or the companies with our First Nation:

- January 6, 2017: PR-16-10995 – permit for mineral exploration
- April 11, 2019: PR-18-000295 – permit for mineral exploration
- November 22, 2019: PR-19-000264 – permit for mineral exploration
- November 27, 2019: PR-19-000227 – permit for mineral exploration
- July 16, 2020: PR20-000178 – permit for mineral exploration
- October 13, 2020: PR20-000276 – permit for mineral exploration
- July 13, 2021: PR-21-000190 – permit for mineral exploration
- October 4, 2021: PR-21-000258 – permit for mineral exploration
- August 15, 2022: 5115-CJ9QRR – permit to take water
- September 15, 2022: Permit 5115-CJ9QRR to take water

The failure to take the minimal step of giving notice to Grassy Narrows about any of the above permits is all the more shocking because while this extensive work was being done on the Great Bear Gold Project, Grassy Narrows was writing to Ontario and to the companies seeking to share information and initiate negotiations about protection for Grassy Narrows' lands, waters, and people. Grassy Narrows has written to Ontario repeatedly about land protection concerns for decades, and most recently in a long series of official letters dating back to 2018 requesting a government-to-government table to resolve Lands issues including mining.

The history of communications between Grassy Narrows, Great Bear Resources, Kinross and Ontario's Ministry of Mines demonstrates that none of these parties have demonstrated a genuine intention to meaningfully engage with Grassy Narrows. This summary is current to December 15, 2023:

- **February 25, 2020:** Having learned about Great Bear Resource's presence in the area, but unaware of the permit applications and authorizations, Grassy Narrows Chief and Council wrote to Great Bear Resources to notify the Company about ANA's mining concerns and to ask if Great Bear Resources had any proposed work that would put Grassy Narrows at risk and conflict with our laws. There was no response. Indeed, Great Bear Resources has never responded to Grassy Narrows' communications.

- **October 1, 2020:** Upon learning of Kinross's presence in the area, Grassy Narrows Chief and Council wrote to Kinross Gold Corp. with a request to meet and a list of questions about their work.

- **October 6, 2020:** Chief and Council wrote to Great Bear Resources.

- **October 7, 2020:** Chief and Council wrote to follow up with Kinross.

- **November 2, 2020:** Kinross responded to acknowledge our letter but did not provide any substantive response to our questions, make any mention of the Great Bear Project, nor accept our request to meet. We did not hear from Kinross again for almost two years.

- **December, 2021:** Kinross reached an agreement with Great Bear Resources.

- **August 29, 2022:** Kinross sent a letter of introduction to our Chief.

- **September 15, 2022:** Less than three weeks later, Kinross submitted an exploration permit to Ontario claiming to have consulted with Aboriginal communities.

- **October 4, 2022:** Grassy Narrows wrote again to Great Bear Resources.

- **October 6, 2022:** Grassy Narrows received its first notice of an application for an exploration permit related to this project from Ontario (PR-22-000284). Ontario gave Grassy Narrows only one month to provide comment on the application.

- **November 18, 2022:** With no capacity, and in the midst of the COVID-19 pandemic, Grassy Narrows wrote back to advise Ontario that we intended to respond but could not do so substantively within the time provided.

- **November 24, 2022:** MINES notified Grassy Narrows that Kinross's application (PR-22-000284) had been approved with the exception of 44 claims that were

being held pending further comment from Grassy Narrows but offering no capacity supports.

- **December 28, 2022:** MINES notified Grassy Narrows of seven mining lease applications and advised that MINES would proceed if it did not receive comments by February 26, 2023.

- **January 19, 2023:** MINES notified Grassy Narrows that it was considering granting the mining permit for the 44 claims that had been held, pending comments from Grassy Narrows by February 3, 2023. Again, no capacity supports were offered.

- **February 6, 2023:** Grassy Narrows wrote to MINES to reiterate the barriers to participation that had been communicated over many years; in the absence of addressing those barriers Grassy Narrows cannot engage or comment substantively to the permit applications.

- **February 14, 2023:** MINES gives Grassy Narrows until February 28, 2023 to respond with comments.

- **February 27, 2023:** Grassy Narrows official writes to MINES indicating that Grassy Narrows does want to comment but that further time is required to review the information, and that the company has yet to respond to the questions that ANA has sent them.

- **March 3, 2023:** Grassy Narrows sent a follow up letter to MINES regarding the seven proposed mining leases and Grassy Narrows' requests for a government-to-government negotiation table.

- **March 10, 2023:** MINES wrote to Grassy Narrows to ask for a copy of the questions posed to the companies in 2020.

- **March 20, 2023:** Grassy Narrows wrote to Great Bear and Kinross to request a meeting about the Great Bear Gold Project in early April and for an answer to the questions posed to the company in 2020.

- **March 21, 2023:** MINES followed up on its request for a copy of the questions posed to the companies in 2020.

- **March 31, 2023:** Grassy Narrows followed up with Great Bear Resources and Kinross to request a meeting in early April and to obtain answers to the questions posed in 2020.

- **April 12, 2023:** Grassy Narrows repeated its request for a meeting with MINES and answer to questions concerning Great Bear Resources and Kinross.

- **April 24, 2023:** Kinross finally responds to the request to meet.

- **June 22, 2023:** Kinross attended an introductory meeting with Grassy Narrows. The meeting was not a consultation on the project. Kinross representatives stated that MINES would be providing answers to the questions posed in 2020. Grassy Narrows raised serious concerns about the project, including capacity constraints and concerns about impacts.

- **June 27, 2023:** Kinross wrote to confirm that MINES would be providing answers to the questions posed in 2020. MINES did in fact provide a partial and incomplete response to the questions posed in 2020. MINES gives Grassy Narrows two weeks to provide comment on the 44 outstanding claims.

- **July 12, 2023:** MINES gives Grassy Narrows a further extension to July 27, 2023.

- **July 24, 2023:** Kinross wrote to invite Grassy Narrows to a meeting to learn about the project and to advise that it was setting up a Sharepoint site to share information about the project. The Sharepoint link was not provided. Kinross further advised that the federal impact assessment process had been initiated.

- **July 28, 2023:** MINES wrote to advise Grassy Narrows that Ontario will not provide capacity support for consultation and asked for comments on the 44 claims by August 10, 2023.

- **August 11, 2023:** MINES approves the mining exploration permit for the 44 claims.

- **August 12, 2023:** Kinross provided a copy of Great Bear industrial Sewage Works documentation. Grassy Narrows does not have capacity to analyze or respond to this technical document.

- **September 7, 2023:** Kinross provided a copy of the Great Bear Advanced Exploration Reclamation Strategy for comment. Grassy Narrows does not have capacity to analyze or respond to this technical document.

- **September 13, 2023:** Chief Turtle writes to the IAAC to advise that Grassy Narrows has learned that Kinross and Great Bear have initiated the interim assessment process. Grassy Narrows was not provided notice in accordance with its protocols and demanded that the process recommence in accordance with procedural requirements.

- **September 14, 2023:** Grassy Narrows sent a follow up inquiry to the IAAC.

- **September 15, 2023:** IAAC provided a two-week extension to respond to Kinross's Initial Project Description.

- **September 20, 2023:** Grassy Narrows responded to IAAC by reiterating that the IAAC had not complied with procedural requirements for the pre-planning stage and repeating its demand to recommence the process.

- **September 26, 2023:** Kinross wrote to Grassy Narrows to request a meeting to discuss capacity funding.

- **September 28, 2023:** Kinross wrote to Grassy Narrows to provide two technical documents for comment (AEX Industrial Sewage Application and Aquatics Monitoring Plan; AEX ECA Air and Noise, Emissions Modelling and Dust Management). Kinross offered to meet and provide capacity support.

- **October 4, 2023:** Kinross wrote to Grassy Narrows about a draft permit to take water application.

- **October 6, 2023:** Grassy Narrows Lands Protection Team was given access to the Great Bear Sharepoint site, with extensive technical documents that were not shared previously. IAAC also provided its Summary of Issues for comment and offered to meet.

- **October 20, 2023:** Kinross provided its groundwater monitoring plan for the project and its preliminary mine rock management and monitoring plan.

- **November 3, 2023:** Kinross provided its draft closure plan for comment.

- **November 10, 2023:** Kinross provided its Detailed Project Description for comment. Grassy Narrows met with Kinross and IAAC. Grassy Narrows asked Kinross to pause the impact assessment process until an engagement protocol could be put in place along with capacity supports.

- **November 14, 2023:** Ontario wrote to Grassy Narrows with belated notice that in or around April 2023 it had delegated the “procedural” aspects of consultation on certain matters relating to the Great Bear Gold Project to Great Bear Resources. Ontario’s letter to this effect dated April 6, 2023 was sent to the Chief and not pursuant to Grassy Narrows consultation protocols. Ontario takes the position that the duty to consult is at the “low end” of the spectrum.”

- **November 20, 2023:** Kinross wrote to Grassy Narrows concerning participation in a Stage 3 Archaeological Assessment.

- **December 15, 2023:** Kinross meets with Grassy Narrows and refuses to pause its activities for any length of time to accommodate Grassy Narrows’ unique circumstances.

As the foregoing chronology demonstrates, the companies and Crown left Grassy Narrows in the dark for years about the Great Bear Gold Project. Since September 2023, Grassy Narrows has been flooded with technical documents, belated offers of capacity support, none of which has flowed, and impossible deadlines for engagement.

Kinross spent billions to buy the project and has clearly already decided to build a gold mine regardless of Grassy Narrows' wishes. Failing to engage with Grassy Narrows on this project for more than four and half years was not an error of omission, but rather a deliberate decision not to engage, and to withhold, information about this project from Grassy Narrows. The fact that other First Nations, who are located far upstream of the project, but who have a reputation for welcoming mining activity, were engaged far earlier (as early as 2017), raises the question of whether a decision was made not to engage Grassy Narrows because of Grassy Narrows' well-known concerns about mining exploration.

It took Ontario and the companies nearly three and half years to provide initial responses to questions posed by Grassy Narrows to Great Bear Resources in February of 2020. And yet, within 60 days of providing those initial responses, without providing any capacity support to review them, and without addressing Grassy Narrows' many other barriers and fundamental issues, the Ministry approved further work on the project in spite of Grassy Narrows' request for capacity support and time.

Even Indigenous Services Canada flagged concern about Kinross's level of engagement to date with Grassy Narrows in its comment to the IAAC:

> The perception of contamination to the land, water, traditional food sources and Indigenous Peoples by industrial development may be a serious concern for the identified Indigenous Nations, especially for Grassy Narrows ... During the late 1990s and early 1970s, the English-Wabigoon River system was contaminated with inorganic mercury from a pulp mill located upstream in Dryden, Ontario. This discharge of inorganic mercury contaminated their water and traditional food sources (i.e. fish) and lead to cases of mercury poisoning and intergenerational challenges. The proponent, Kinross Gold Corporation, started engaging with Grassy Narrows First Nation in 2022, whereas their engagements with Wabuskang First Nation and Lac Seul First Nation began in 2017. Due to Grassy Narrows First Nation's negative and detrimental experience with industrial development, it is recommended that more engagement take place. The Indigenous Nations need to gain a greater understanding of the contaminants that may be released into the environment. They should be provided an opportunity to express concerns or uncertainties about potential exposure to chemicals used in the gold mining process, such as cyanide and heavy metals.[8]

Given this history, including the Crown's outstanding obligations to Grassy Narrows, it is highly inappropriate for Ontario to delegate any aspect of consultation to Great Bear

[8] Indigenous Services Canada, Federal Authority Advice Record – Great Bear Gold Project, p. 5.

Resources. Grassy Narrows does not agree that the Crown can delegate its duty to consult with a treaty nation to a third party. Nor does Grassy Narrows agree, given Grassy Narrows' strong rights, existing cumulative impacts, and the companies' intention to open large gold mines upstream from the community, that the duty is at the low end of the spectrum.

The IAAC has failed to consult as required with Grassy Narrows

According to the attached IAAC document summarizing the impact assessment process, the process begins with Phase 0 (Pre-Planning), a phase that requires engagement by both the Proponent and the Agency with Indigenous groups. None of the required pre-planning steps with respect to Grassy Narrows have been complied with.

The Proponent was required to engage Grassy Narrows to present the project, learn Grassy Narrows' views, including potential effects and how we wish to be engaged and to incorporate this information into the Initial Project Description. Grassy Narrows has expressed, both in writing and in meetings on June 22, 2023, and November 10, 2023 with representatives from Kinross, our significant concerns about potential impacts upon our community, which are not reflected in the Initial Project Description. Grassy Narrows also provided Kinross with our communications protocol, which includes communication with the Lands Protection Team. That protocol was not included in the Initial Project Description.

The Agency was aware, based on the Initial Project Description, that Grassy Narrows may be affected by the project. In the pre-planning phase, the Agency was required to inform Grassy Narrows about the impact assessment process to support us in understanding how we can participate. The Agency was obligated to learn Grassy Narrows' views and context, including potential effects and how we wish to be engaged. The Agency did not comply with these requirements of the pre-planning stage.

Crown and Company efforts to engage Grassy Narrows since 2022 have been performative and do not meet the standards required for engagement

The decisions to open our land to mineral staking and exploration, to carry out extensive exploration, and to build a gold mine, have already been made, and billions of dollars spent towards that end, all behind Grassy Narrows' back. In this context, it is hard to believe that requests for belated input at this late stage are sincere. Clearly, the companies and Ontario have already decided to build a gold mine if investors will support it and we are an afterthought.

Kinross is now flooding us with technical documents created by highly paid experts, while knowing that we have no capacity support to engage experts to review the technical documents, nor to engage our community about them. When we sought a pause in the process to gain capacity support, retain experts, complete a process agreement, and engage in our governance process, we are refused. In this context it is hard to believe that anything Grassy Narrows says will be taken seriously and will have

the potential to meaningfully influence the major decisions that have been made.

We live downstream, our established rights and our health are at stake, and we are concerned. Under Crown law the Crown clearly had a duty to meaningfully consult and meaningfully accommodate us at every stage of this project, including during the strategic level upstream decisions (such as land use planning, land use designation, tenure, etc.) as well as the more minor decisions which flow from them (such as specific exploration permits, water takings, leases, etc.). As a First Nation whose Treaty rights and health have already been severely impacted by the cumulative impacts of industry and government decisions our consent is required. Under our inherent rights, Anishaabe law, and International law our consent is also required.

Ontario has failed for many years in their duty to consult on this project and we call for an immediate freeze on all project activities until sufficient capacity support has been provided to allow Grassy Narrows to complete an ethno-historical report, land use and occupancy study, archaeological assessment of the area and study into cumulative impacts, and until we have been meaningfully engaged and our free, prior and informed consent obtained.

V. Adverse Impacts: ANA Preliminary Specific Concerns

As Asubpeeschoseewagong Anishinabek we have a holistic, interconnected, and spiritual relationship to our sacred landscape. We are the land and the land is us. What happens to the land happens to us and to our children for many generations.

This is an area where our ancestors have practiced, and we currently practice our Anishinaabe way of life; a way of life that relies on a healthy environment and is central to our identity, health, wellness, and livelihood. This area is part of the whole that forms the sacred landscape which gives us life and which we are in relationship within every aspect of our lives, hearts, spirits, and dreams.

While some areas may appear to an outside observer to be on the periphery of our Territory, this is a grave misperception. All our territory is core to our way of life and connection to the land. For example, we have always traveled to hunt. A moose that is harvested a few days' travel from our village site will still feed a family for many weeks and be shared with Elders, relatives, and friends. The dramatic decline in the moose population near our village means that the area around Red Lake is even more critical to our moose hunt. These areas are deeply embedded in our memories, our lives, and our hearts. We are strongly tied to this land.

We know that MINES, IAAC and the companies do not respect this relationship and seek to reduce it to a series of finite, bounded sites of 'values'. Our concerns are disregarded unless they are expressed in extremely specific and reductionist terms that ties adverse impacts to particular pieces of the land that are viewed in isolation from the whole. MINES and IAAC want us to engage in an exercise of, for example, identifying a specific hole that is a specific distance from a specific cabin and thus should be moved a bit to the west. Or, this type of machinery produces noise that will make hunting

difficult in this specific blind during this month, so please do not use it in October. Or, this wastewater discharge site is next to that fishing hole, so please put it a bit further downstream.

This approach fails to see the forest for the trees. What use is a remote cabin retreat without the serenity of the surrounding area from which we draw our physical and spiritual sustenance? How can we use it for healing and to teach our children their way of life while over the ridge heavy machinery encroaches ever closer and non-native users buzz around us in ATVs and motorboats? What use is a hunting site if the ancestral moose trails have been destroyed, there is no winter refuge, and unmanaged access routes have allowed non-native hunters to deplete the population precipitously? What use is a fishing spot if the fish has absorbed a dangerous burden of toxins from its food sources everywhere it swims throughout its life, including those carried from upstream? How can we carry out our ceremonies when the spirits who live in the rocks have been disturbed by drilling and blasting. What point is there in commenting on a small drill program in isolation, when everyone knows that your plan is to open a huge open pit and underground gold mine?

In spite of this fundamental difference in world view, the barriers, unresolved fundamental issues, and concerns noted above, we know that MINES, the Companies and IAAC will try to proceed with this project unless we raise specific concerns. In the absence of the necessary supports, Grassy Narrows cannot substantively respond to the technical information provided to date about the Great Bear Gold Project. We provide these preliminary concerns under protest and based upon the limited research we can undertake, which should not be taken as a complete overview of our concerns.

Industrial disturbances will release even more mercury into our ecosystem and further impair our Treaty rights.

The Great Bear Gold Project will require industrial mining exploration, access roads, clearing of trees, modification to water levels and other activity within the English River watershed. The waters from those areas flow into the English River in short order via the Chukuni River. They flow into the areas where we fish, boat, camp, and practice our way of life, and directly past our community.

The scientific literature establishes that industrial activity in the boreal forest releases mercury into local lakes and rivers.

Building machine tracks, trails, and roads is a common part of mining exploration and mine development work. However, simply driving heavy machinery through the boreal forest can contribute to the release of mercury. In one documented instance, a temporary machine track was inadvertently placed across a small, long-term reference catchment. This disturbance increased outputs of MeHg by a factor of over five for more than a decade.[9]

[9] J. Munthe and H. Hultberg (2004), “Mercury and Methylmercury in Runoff from a Forested Catchment -

Clearing the forest has also been found to release mercury into local water bodies where it bioaccumulates in fish to dangerous levels. The foremost study on this subject was completed in Quebec by Dr. Carignan. The study found that 100% of lakes with clearcut watersheds had walleye and pike with mercury levels that exceeded the World Health Organization advisory limit for human consumption. Meanwhile, only 18% of unlogged lakes, and only one burned lake exceeded the limit.[10]

In the only field study on the topic done by Ontario of which we are aware, there was roughly a doubling of mercury exported from a watershed near Thunder Bay via a stream after logging activity. This release of mercury occurred even though all the required regulatory measures, including those with respect to riparian buffers, were followed.

Despite these findings, Ontario does no downstream monitoring of actual industrial operations to monitor or assess mercury impacts.[11]

Both the Carignan and Ontario studies concluded that that the increase in mercury export is largely due to changes in local watershed level hydrology from the loss of tree cover. Mining exploration and mining activity also involve the clearing of trees from the land and risk similar impacts to local hydrology (e.g., Lower evapotranspiration rates, changes to snow and rain interception, etc.) and therefore leads to similar increases in mercury export to local logging.

Mining exploration and mining activities often have the effect of artificially changing water levels. This can happen through water takings, water discharges, dewatering of areas, and other industrial processes. Studies have found that the artificial lowering and raising of water levels in boreal water bodies often causes the release of mercury. Monitoring studies of the De Beers Victor Diamond Mine have found increased levels of mercury in fish in water bodies downstream.

For a more detailed discussion of the science on mercury and boreal forest clearing please refer to our enclosed evidentiary record filed with the Divisional Court in our 2015 Judicial Review Application, and the associated expert reports by Dr. Carignan, Dr. Podur, Dr. Mergler, and Dr. Willow.

Mining exploration and mining activities also risk altering water quality in ways that increase the methylation of existing mercury in downstream watersheds. This can be through the addition of sulfate, change in acidity, water colour, temperature, and other parameters. In Grassy Narrows, where mercury levels are already elevated by emissions from Dryden, any increase in net methylation is intolerable.

Concentrations, Fluxes, and Their Response to Manipulations", Vol. 4 at 607-618.

[10] Globe and Mail (March 12, 2001), "Mercury levels tied to logging practices."

[11] Toronto Star (September 14, 2016), "Ontario environment officials concerned that clear-cut logging releases mercury."

The Crown still has no remediation plan for the mercury that remains in the English-Wabigoon River system from discharges in the 1960s and 1970s. Mercury released into the watershed or methylated as a result of mining activity, especially dissolved mercury, will eventually find its way into the English River and further raise the mercury levels in fish and poison our people, exacerbating and prolonging our mercury crisis.

This is not acceptable. We cannot tolerate any additional mercury.

New releases of mercury or increased methylation will unjustifiably impair Grassy Narrows' treaty rights, health and wellbeing, and are discriminatory. This is an intolerable outcome for our treaty partner to impose on us against our will in the absence of consent.

Adverse impacts on Grassy Narrows' Treaty Land Entitlement Claim.

Grassy Narrows has an active Treaty Land Entitlement Claim (TLE) that has been accepted by the Crown and is under negotiation for resolution. Part of the resolution of the claim will include an addition to Grassy Narrows' reserve lands, and compensation for lost use. Grassy Narrows is currently engaged in a process to select its additional reserve lands. All the area around Grassy Narrows is currently potential reserve lands additions under consideration.

The Crown has asserted that lands which have encumbrances, such as mining claims and leases, will be more challenging to designate as additional reserve lands. This means that your mining claims and leases adversely impact our ability to select reserve land additions and are an impediment to the successful resolution of our TLE.

Further, lands which have been impacted by mining exploration such as cutting lines, pitting, trenching, stripping, and drilling, decline in ecological health, experience a degradation of their intactness, and therefore become less suitable as additional reserve lands.

Lands which are downstream of industrial projects also have their value, and suitability as additional reserve lands degraded. Lands along the shores of the English River and its tributaries have been core to our people for countless generations and are prime candidates for our reserve lands additions. If you were selecting lands for your home, your cottage, or your reserve, would you want a huge industrial gold mine to be opened up stream of them? No one would.

Over the last few decades vast parts of our Territory have been encumbered and degraded through industrial actions imposed on Grassy Narrows and upstream of Grassy Narrows. This has severely restricted the available suitable additional reserve lands.

Grassy Narrows has been clear that there should be no new encumbrances on our area, and no new degradation to our area (including from upstream), as this would unfairly further reduce the available suitable additional reserve lands (in addition to other impacts outlined elsewhere). This would impair the ability to correct the injustice

that was done to us by having been denied a fairly sized reserve for over a century.

On-site Impacts

According to the Ontario Auditor General "Mining activities can have a significant impact on the surrounding environment. They can affect groundwater and surface water, aquatic life, soil, vegetation, wildlife and air quality. The changes mining makes to the environment can have serious implications for public safety and health."[12]

While we are unable to meaningfully review the thousands of pages of technical documents that have been sent to us, it appears that the on-site impacts of the project will be extreme.

Large parts of the site will be deforested for decades at least. Three open pit mines will be created along with three underground mines, large tailings holding areas will be created, and a large ore processing facility will be built.

The project area will effectively be completely removed for the foreseeable future from the land base that is accessible to us to live our way of life and to practice our rights.

It also appears that water bodies including lakes and creeks on the site will be at extremely risk because they will be located immediately adjacent to and downstream / downgradient of heavy industrial operations including mining, ore processing, and tailings storage. We are concerned that the on-site water bodies will be damaged and we know that once they are damaged it can be hundreds, if not thousands of years before they are safe again.

Downstream / wind / migration impacts

We know far too well that industry can have impacts far beyond the industrial site itself. The chlor-alkali plant in Dryden that discharged mercury into the Wabigoon River was 150 km upstream of our village. The distance did not stop the mercury from being carried downstream, bioaccumulating in the fish that we eat, destroying our livelihood, poisoning our people, and dramatically disrupting our way of life. More than 50 years after the discharge of mercury was ordered halted, our mercury crisis rages on.

We fear that the impacts from the Great Bear Gold Project site will extend far beyond the mine site itself, further disrupting the balance of the environment that the Creator has established for us and which gives us what we need for a good life.

Impacts from industrial sites can propagate off site in many far-reaching ways and we cannot list them all here. Pollutants can be carried hundreds of kilometers downstream. Water quality changes that may appear innocuous in themselves, and which are not regulated, can alter the cycling of pollutants, nutrients, and other aquatic processes in damaging ways. For example, dissolved organic carbon (DOC), sulphate, and other

---

[12] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."

substances are a naturally occurring part of aquatic ecosystems and are not considered toxic. However, they known to play a strong role in mercury cycling affecting mercury speciation, solubility, mobility, and toxicity in the aquatic environment. Alteration of water chemistry can have serious consequences.

The wind can carry pollutants and other chemicals long distances before they are breathed by our people and deposited on the ground and in the water. For example, PCBs generated in the industrial centers can be deposited in the arctic and bioaccumulate to levels that are dangerous for subsistence consumers. Acid rain created by the Sudbury mines killed hundreds of lakes for scores of kilometers downstream and the area has yet to fully recover many decades later. We fear that the operation of the mine, including heavy machinery, blasting, and ore processing, will create airborne pollution and changes that can be carried long distances throughout our Territory and beyond, and will compound the existing impacts of other sources of airborne pollution including the Dryden and Kenora mills, other mines, and municipalities.

Off-site impacts can also happen through animals, fish, and birds and other forms of life that travel. If moose can no long find winter refuge on the project site, or if roads, trails and clearings created associated with the project increase access and success for non-native hunters and predators, then fewer moose will be available to hunt. That impact will not be restricted to the boundary of the project site but will extend as far as a moose would range from the project site, or conversely the area from which moose would range into the project site and face predation, hunting, and lack of suitable habitat.

Other animals like wolverine, wolf, bear and cougar travel even further distances. Impacts to their populations, their travel routes, and their hunting success in turn influence the populations of the moose, caribou, rabbits, and other animals that are important to us.

We know that walleye travel large distances throughout their lifespan, especially when they are spawning. Throughout their travels they breath the water, eat the local food sources, and are exposed to local toxins. Many of these toxins stay in the walleye for a very long time and accumulate throughout their lifespan, which can be decades long. As a result, walleye that are not at the project site, nor even within a downstream area impacted by the project site, may migrate into impacted areas and accumulate toxins which we are exposed to when we eat them. In turn, otters, eagles, pelicans and other beings eat the fish and then travel further distances, carrying the toxins with them.

Landscape impacts (e.g. intact forests)

Beyond the on-site and off-site impacts, the project will have landscape-level impacts. Looking at each site in isolation fails to see that the landscape as a whole and its many processes and functions that sustain life. The many parts of the landscape work together, each playing their part. If one is disturbed, then all are disturbed. If too many are disturbed, then the landscape's ability to sustain our good Anishinaabe way of life can be severely undermined.

For example, intact forest landscapes “are critical for stabilizing terrestrial carbon storage, harboring biodiversity, regulating hydrological regimes, and providing other ecosystem functions.”[13] Many species rely on intact forests. For example, the Government of Canada believes that once a landscape exceeds 35% disturbance it crosses a threshold beyond which the landscape becomes unable to reliably sustain a population of woodland caribou and extirpation becomes likely.

Indeed, this is what we experienced in the southern part our Territory where no single project alone caused the local extinction of caribou, but rather it was a death of a thousand cuts as more and more impacts over time made the landscape unable to sustain caribou. We know that the landscape in the range of the Sydney Caribou herd already exceeds this disturbance threshold and is need of recovery. The Gold Bear Gold project will add further disturbance, making the local extinction of caribou even more likely.

Caribou are a sentinel species whose fate is an indicator of the health of the landscape and a range of species and values that rely on intact forests.

Although they behave very differently, moose also rely on a healthy landscape. When there is too much industry, the dense mature conifer forests that moose require for winter shelter become too small, fragmented, and scattered to support moose. When too may roads are put in, outside hunters gain easier access, and when clearings are made those hunters have higher kill rates. When the forest becomes too disturbed, the deer move in, and with them comes sicknesses that hurt the moose.

Again, no one project alone can be blamed for the loss of our moose. But taken together the many industrial changes to our landscape have led to the near elimination of our once healthy moose population.

In spite of our many requests, Ontario refuses to work with us to plan at a landscape level to ensure that our health and way of life can be maintained and recovered. Instead, Ontario allows more and more disturbances to compound each other, further and further degrading the landscape that we rely on. The Great Bear Gold project will further undermine the forest landscape.

Spiritual Impacts

Spiritual impacts are a sensitive topic because it involves some of our deepest and most personal aspects of our selves. It is also sensitive and difficult to share because, not long ago, our spiritual practices were outlawed and we suffered persecution for them. To this day our spirituality is mis-represented, misunderstood, and disrespected by government and industry. For these reasons, this information is only the tip of the iceberg pointing to the presence of a deep and far larger concern.

Our people believe that may aspects of a human being are important to health,

---

[13] Intact Forests, “Intact Forest Landscapes”.

wellness, and the good way of life. A critical aspect is spirituality. The landscape and our way of life are connected and sacred. We have a spiritual relationship of reciprocity with the landscape that requires us to take care of the land so that the land can continue to provide for us. This is a sacred responsibility given to us by the Creator.

Our sacred relationship and responsibility is with the landscape as a whole, and with all of its parts. It is not restricted to a finite set of point values such as ceremony sites, burial sites, and medicine patches. Although those are important, they are focal points in a far broader and all-encompassing spiritual fabric. Our spirituality emanates from, and is infused by the entire landscape. It is practiced throughout the landscape and supported by the entire landscape.

Without the spiritual landscape intact, the spiritual sites are desecrated and cannot function. The medicines do not work if they grow in a clearcut, or if herbicides and pollution have drifted on the wind towards them. How can the ceremony summon a spirit who has fled from the noise of machinery and blasting? How can an offering be made to a spirit-being whose trails and territory have been destroyed? How can the prayer for the success of our hunters be answered when our industrially transformed landscape is nearly empty of moose? How can we fulfill our responsibilities to our clan animals Atik (woodland caribou) and Numeh (sturgeon) when they are extirpated or at risk in much of our Territory? How can we fulfill our duties and ceremonies to the water when it has been polluted, dammed, and an invisible remains within it? How can we identify our grave sites when our people have been laid to rest throughout this land for countless generations?

In addition to our broader sacred relationship with the landscape, there are spirit beings who inhabit the landscape and who have relationships with the Anishinaabe and important roles in the landscape. We have duties to carry out in our relationships with these beings and if we do not fulfill our duties there can be negative repercussions. Some of these important spirit beings live in the rocks. When the are disturbed, hammered, drilled, bulldozed, blasted, or extracted, these spirit beings are impacted, and the spiritual realm is disrupted.

Past government policies and industrial activities have already deeply disrupted our spirituality and the spiritual dimensions of our way of life and wellness. If the Great Bear gold mine, and associated work, goes ahead, then it will have a further intense spiritual impact.

Spiritual impacts lead to bad things for our people. When we cannot fulfill our sacred duties it causes feelings of sadness, anxiety, loss of identity, loss of meaning, depression, and helplessness. When the spiritual realm and relationships are disrupted, it can cause fear, accidents, discord, conflict, bad harvest, unsuccessful hunts, drought, floods, hunger, ill health, and other terrible things.

We understand that the government and industry have a different way of seeing things, and that you see the natural world as separate from you, inanimate, spiritless, and there for the taking. We know that you always tell us that you know best and that the industrial

activities you plan will only cause minor, contained, short term impacts and that we need not worry. And yet, we are suffering from all the terrible consequences that our ancestors warned us would come from your industry and your violation of our spiritual landscape including illness, poverty, hunger, depression, suicide, and conflict.

Our way of understanding the world deserves respect. It is not right for you to force your worldview and all its impacts on us while we suffer the consequences.

Long-term risks – Tailings

We are particularly and deeply concerned by the long-term nature of the changes that you are making to the landscape and the risks that you are creating.

On August 13, 1970, a few months after closing the fisheries due to mercury pollution, the Ontario Minister of the Environment, George Kerr, declared that the Wabigoon River would recover on its own, without a cleanup or intervention. He said it would happen naturally in 12 weeks.[14] More than five decades later, our walleye in the Wabigoon River remain the most mercury contaminated in all of Ontario and it is unsafe to eat even one meal. Recent studies indicate that it will take many hundreds, if not thousands, of years for river sediment to recover on its own. Many sites are not recovering at all, and some are getting worse.

Some of the long-term risks that you are proposing to create include the creation of huge piles of waste rock that contains acid, heavy metals, the creation of new lakes in former open pit mines and tunnelling deep underground. These activities create long-term risks of leaching, groundwater contamination, dam failure, cave ins and falls, among many other things. We know that the impacts of industry can last many generations and for thousands of years.

And yet, our Treaty is only 150 years old. In that time the Crown has shown little ability to plan for the long term in a way that is not disastrous for us. How can we believe that the risks that you are creating will be safely taken care of for longer than Canada has existed as country, for longer than the time that Europeans have been in contact with us? How can we know that Canada, Ontario, Kinross, or Great Bear Resources will even exist in the timeframe that these risks will exist, let alone fulfil your responsibilities to take care of these risks in a way that you never have before?

You say that you will contain, monitor, and prevent these risks from impacting us, our water, and our landscape. But Ontario's own Auditor General has repeatedly found a failure to effectively remediate and monitor mining risks (see the section on failure to regulate below). Senior officials in the provincial government have noted the urgent and dangerous gaps in Ontario's regulatory ability to ensure the safety of tailings dams. You cannot safely carry out these duties now. Who will maintain the tailings dams in 100

[14] The Guardian (October 16, 2018), "The Warrior Society rises: how a mercury spill in Canada inspired a movement."

years? Who will monitor in 200 years?

We, the people living downstream, do not accept these risks.

Impacts to relationship with the Crown

The Great Bear Gold project is a massive one, with great risks to Grassy Narrows and that can have a major impact on many aspects of Grassy Narrows' relationship with the Crown including our Treaty, the honour of the Crown, fiduciary duties, outstanding obligations, unmet duties, and reconciliation.

Yet, the Crown refuses to come to the table with us about the major issues from which all these problems flows. At the same time, Ontario is attempting to delegate nearly all aspects of our relationship with the Crown to a gold mining company that is not party to our Treaty and that is primarily accountable to creating profits for its shareholders. A gold mining company has no ability to address our important issues with the Crown. We do not accept a gold mining company stepping into the shoes of our Treaty partner.

Adding insult to injury, Ontario has informed the company that the duty to consult on this project is at the low end of the spectrum. This is incorrect. For many reasons, even under Crown law, we are at the high end of the spectrum where consent is required. The reasons include but are not limited to the significant potential adverse impacts of the proposed project on our rights and health, the strength of our rights, the cumulative impacts of past industry, the outstanding Crown obligations and unmet duties towards us, the honour of the Crown, and fiduciary duties.

The failures of the Crown have led to a situation where we have been notified of this project only after the land was designated as "general use" and open to mineral exploration, after cumulative impacts of industry had been allowed to severely impact our rights and our health, after mining claims to the land were registered, after five years of exploration work had taken place, after over a billion dollars had been spent to purchase the property, and after the company had decided to open up a huge gold mine here.

The Great Bear Gold project is a runaway train, and we have no meaningful opportunity to shape decisions that will forever impact our people and our land. These decisions include: determining what parts of the landscape should be protected and what should be exploited; the threshold for industrial impacts that can occur before our rights are infringed and our health is harmed; the process for making decisions among Treaty partners; the role of third parties seeking to profit in the Treaty relationship; how to repair harms created in the past but impacting the present; how to prevent future harms; how to reconcile the relationship between the Crown and Grassy Narrows.

The Crown acts as though Grassy Narrows has no say in these decisions. The Crown seems to think that we should accept that a massive gold mine is a foregone conclusion and we should only have a say in things like where the effluent pipe discharges, where the tailings piles are located, and where the processing plant should be sited. We disagree.

This project, the failure of the relationship with the Crown which has allowed the project to become so advanced without our involvement and consent, is having, and threatens to have further major impacts to our relationship with the Crown. Rather than taking a minimal and reductionist view of the minimum that the Crown can do in this situation, a robust understanding of the duties is required, as well as an appreciation for the unique circumstances and history of Grassy Narrows. Only involvement of senior representatives of the Crown can resolve this problem.

Federally Regulated Impacts

Federal involvement is required because of the numerous areas of claimed federal jurisdiction that will be affected by the Great Bear Gold project, including the completion of a Federal Impact Assessment.

Some, but not all, of these areas of claimed federal authority are listed here:

Species at Risk: The Federal Crown claims authority within the Constitutional division of powers over Species at Risk. Although we have not been able to carry out a thorough assessment due to the lack of capacity supports, the project site has a strong potential to impact the following species at risk:

- Woodland Caribou – the project site is within the range of the Sydney Caribou Herd. The range of the Sydney Caribou Herd is currently approximately 64% disturbed (likely higher due to recent fires in Woodland Caribou Provincial Park). This amount of disturbance exceeds the threshold above which the range becomes unlikely to be able to support a viable caribou population. The range is in need of recovery to lower the level of disturbance and therefore the entire range is considered critical habitat. The project will add disturbance, further degrading the ability of the range to sustain caribou and increasing the likelihood that Woodland Caribou, a threatened species, will be extirpated from this area. Caribou is an important clan animal for Grassy Narrows.

  It should be noted that while Ontario does have a *Species at Risk Act*, it has exempted mining and logging from the applicability of that Act. The provincial government cannot be counted on to ensure that the Great Bear Gold project proceeds in a manner that protects species at risk.

- Wolverine – Wolverine play an important and unique role in our ecosystem and in the balance of life. The company has indicated that wolverine have been observed on the project site using trail cameras. Direct observation of wolverines is a rare. Wolverine avoid humans and human impacted areas. The project is almost certain to permanently displace the wolverine that have been observed at the site and to destroy any wolverine dens, trails, habitat, and food sources that are on the site.

  The Committee on the Status of Endangered Wildlife in Canada (“COSEWIC”) reports that wolverines prefer ecologically intact areas and avoid disturbance.

According to COSEWIC "[a] study of the cumulative effects of developments on Arctic wildlife (Johnson et al. 2005) found that mines and other major developments had the largest negative effect on species occurrence, followed by exploration activities, and outfitter camps."[15]

Due to past degradation of southern habitats, wolverine left Grassy Narrows' area. However, our success in stopping logging has resulted in the beginning of a return of wolverine. Grassy Narrows is now near the southern edge of the currently occupied range of wolverine. If the project goes ahead, wolverine will leave our area and may not come back, further disrupting the balance of the landscape.

- Sturgeon – Sturgeon are an important clan animal in Grassy Narrows an important food source for the Anishinaabe of the Treaty 3 area. The damming of the English River has had a big impact on sturgeon. A small and delicate population remains in the river, which we are trying to protect and recover. Sturgeon live for many years, are sensitive to industrial disturbances, and can accumulate large amounts of toxins in their bodies.

There are many other species at risk that may be affected by the Great Bear Gold project, including bats, birds, turtles, Eastern Cougar, American Badger, and others. Each have a role to play in the web of life.

Fisheries: The Federal Government claims jurisdiction over inland fisheries, the prevention of harm to fish from pollution, and the protection of their habitat.

While the Federal Government has cooperative agreements with Ontario for licensing of fisheries the Federal Government maintains jurisdiction and responsibility for prevention of harm and protection of fish habitat.

Under Crown law, even the construction of a small water crossing can trigger the need to apply to the Department of Fisheries and Oceans for permits. In contrast, Ontario does not require a provincial impact assessment before a mine is opened.

We are a river people and fish have always played an extremely important role in our way of life, our sustenance, and our livelihood.

The companies propose to take water from our river system, use it in the industrial gold extraction process, and then return it to our river. The companies propose to create three open pit mines, three underground mines, store large amounts of waste rock and operate an industrial ore processing facility, all in close proximity to water bodies and streams that flow into our river system. Finally, the companies propose to create three new lakes in the empty open pits created by gold mine, and to allow water to flow out of those pits and into other local water bodies. All these activities, and others, put our fish

[15] Government of Canada, "Wolverine (Gulo gulo): COSEWIC assessment and status report 2014" (date modified: January 6, 2015).

at risk.

The Crown has failed to protect our fish for many decades from the impacts of mercury and this has had grave consequences for the rights, health and wellbeing of our people. Given the Crown's failure, and its ongoing impacts, all levels of the Crown should be diligent and alert in carrying out their duty to protect our fish from further harm.

Indigenous Peoples: The Federal Government claims jurisdiction over Indigenous Peoples and the lands reserved for them. This jurisdiction includes claimed authority over our health, culture, and wellbeing, responsibility for environmental contaminants and their impacts on Indigenous traditional foods and on the health of Indigenous Peoples.

The Great Bear Gold project has potential to impact Grassy Narrows' relationship with the Crown, the safety of our traditional foods, and our health, culture, and wellbeing. The project also has the potential to impact waters that flow into and through our reserve and which can impact our reserve.

Due to the Crown's longstanding and ongoing failures to meet its duties to Grassy Narrows, all levels of the Crown should be diligent and alert in carrying out their duty to protect us, our health, our traditional foods, and our further harm.

There are further areas of Federal claimed authority that likely apply here as well and that are at risk in this project, including but not limited to migratory birds, transboundary waters, transboundary air pollutants, international laws and instruments.

Due to the many important areas of claimed Federal authority that are at serious risk in this project, it is essential that a robust and comprehensive Federal Impact Assessment is carried out.

Grassy Narrows seeks to engage with the Federal Government and our consent is required to the form that the Impact Assessment will take.

Site-specific parameters and guidance levels needed

In its Initial Project Description, Kinross states that water, effluent, tailings leachate, and other substances will be tested and will be released back into the environment after they meet guideline levels. However, the Initial Project Description does not identify the guideline levels that will be used. Guideline levels are a very important and complex topic that must be explored in far more detail. Our discussion here is intended to illuminate that there is a serious problem.

Although there are many substances of concern here, we are most familiar with mercury and so we will use it as an example.

There are many guidelines that we have seen applied upstream of our community for allowable mercury levels. Some of these guidelines are wildly inappropriate, but all of them are insufficient.

According to the Government of Canada "(m)ercury is a toxic element and serves no beneficial physiological function in man; a maximum acceptable concentration of 0.001 mg/L (1 µ g/L) in drinking water has therefore been established."[16]

A concentration of 0.001 mg/L corresponds to **1000 ng/L** (nanograms per liter), which is the unit we will use here.

One might think that if the mercury level is good for drinking, then it would be fine to put in our river, but that is not the case. Provincial Water Quality Objectives ("PWQO") are numerical and narrative criteria that serve as chemical and physical indicators representing a satisfactory level for surface waters (i.e. lakes and rivers) and, where it discharges to the surface, the ground water of the Province.

The PWQO guideline level for mercury in surface water is **200 ng/L.**

The PWQO guideline has historically been applied to mercury contaminated groundwater seeping out of the banks of the Wabigoon River next to the Dryden mill to claim that it is safe. However, this too, is irresponsible.

The Canadian Council for Ministers of the Environment (CCME) provides guidelines for mercury levels in freshwater bodies that attempt to account for the risk to fish and wildlife through exposure to mercury.

The CCME guideline level for mercury in surface water is **26 ng/L.**

One might think that if this level of mercury in water is safe for the fish and wildlife, it must be safe to put water with that level of mercury into Grassy Narrows' river. However, the CCME guideline does not consider bioconcentration of mercury as it moves up through the food chain.

As the Government of Canada explains "[t[he presence of mercury in water has become a source of concern because of the finding that organic mercury is bioconcentrated by fish. Elevated mercury levels have been found in all freshwater fish taken from areas with suspected mercury contamination and frequently render the fish unacceptable for human consumption."[17]

The mercury levels that are found in predatory fish like the walleye, can commonly be a million times the level that is found in the water that they swim in.

Recent monitoring studies of the Wabigoon River upstream from the Dryden mill show that **baseline level of mercury in the Wabigoon River is around 1 ng/L.** Even at those baseline levels of mercury in water, large adult walleye in Wabigoon Lake often exceed 0.5 ppm mercury, the level above which the commercial sale of fish for human

---

[16] Health Canada (1986), "Healthy Living: Water and Mercury."
[17] Health Canada (1986), "Healthy Living: Water and Mercury."

consumption is banned.

If the level of mercury in the River is raised to **2 ng/L**, then mercury levels in adult walleye will approximately double, making them far more dangerous to eat. If other chemicals that stimulate net methylation in the environment are added as well, then the effect will be even more grave.

That means that river water with 2 ng/L of mercury will have serious impacts on the health of Grassy Narrows people's ability to safely practice their right to fish, even though this level is less than 10% of the level allowed by the CCME guideline, the most restrictive of the guidelines we are aware of.

A similarly broad range of guidelines exist and are applied for mercury levels in fish safe for human consumption.

The Ontario Ministry of the Environment "Guide to Sportfish Consumption" allows for some consumption of fish by the non-sensitive population (adult men and women who are not of child bearing age) if the fish have mercury levels below **1.8 ppm.**

On the other hand, the sale of fish for human consumption in Canada is banned if the fish have mercury levels over **0.5 ppm**. Grassy Narrows fishermen have been charged for selling their catch based on this rule.

In the 1980s, Canada established **0.2 ppm** as the guideline limit for safe consumption of fish by Grassy Narrows and other Indigenous subsistence eaters of fish.

The US Environmental Protection Agency ("EPA") lists **0.1 ppm** as their guideline level for Indigenous subsistence eaters of fish.

Renowned mercury expert Dr. Mergler has written in expert reports (some of which are enclosed), all of which have been provided to Ontario, that among these guidelines the US EPA level is most relevant to Grassy Narrows. However, she notes that all these guidelines are based on safe levels for a lifetime of exposure in a regular population. Mercury impacts are cumulative throughout the lifespan. None of these guidelines take into account the high, and far above guideline, levels of exposure that many Grassy Narrows people have already been exposed to. She writes that Grassy Narrows people have generally already been exposed to too much mercury and cannot safely be exposed to any additional mercury.

Clearly, off-the-shelf guidelines are not sufficient. It is necessary to develop and apply in close collaboration with Grassy Narrows locally specific guidelines that take into account the local background levels, ecology, food chain, cultural practices, and cumulative impacts from other industry, and history of exposure.

Other specific concerns

Given the constraints that we have noted, it is not possible to provide a comprehensive list of concerns here. However, some further concerns that we have identified to date,

which will require future elaboration, include:

- The contamination of the water within our Territory and water that flows into our Territory from effluents, discharges, by-products, leaching (including of metals), and changes in mercury cycling
- The creation of acid rock drainage and other forms of toxic drainage
- Changes to the flow, level, and quality of our water from water takings and discharges.
- The contamination of our air and air that flows into our Territory
- The loss of our caribou and moose, and of those who travel into and out of our Territory through impacts including habitat degradation and outside hunting pressure
- Disrupting the delicate balance of animals, predators, prey, and the web of life that supports us.
- The contamination and loss of our fish for food, commercial fishing, sport fishing, and way of life, including fish that migrate in and out of our Territory
- The loss and contamination of our birds and insects including migratory birds
- The loss of our valuable fur bearing animals including marten and otter
- The fragmentation and degradation of our forests and the loss of intact forest landscapes and old growth forest areas
- The changing of mercury exports and mercury cycling, including methylation
- The creation of additional anxiety, fear, depression, disempowerment, and despair among our people
- The further disruption of our society, our culture, and our way of life.
- The exacerbation of our suicide crisis
- The desecration of our sacred landscape
- The disturbing of spirits and beings that live in the rocks
- The tainting of our medicines
- The disruption of our people who are out on the land living their way of life
- The loss of peace and quiet for our people who are out on the land

- The loss of the ability to use the land as a healing place for our people
- The loss of our ability to teach our kids our way of life, identity, knowledge, and ways of wellness
- Impacts to our individual and collective health and wellbeing
- The loss of our ability to make a living in a way that is harmonious with our culture
- The violation of our Indigenous laws and jurisdiction
- The violation of our Treaty rights, our Treaty relationship
- The violation of the honour of the Crown and Fiduciary duties.

Other harmful impacts of industry on ANA people and Territory include, but are not limited to, the following:

- Impacts to game animal populations and their habitat including moose, and caribou which are central to our hunt and an important part of our way of life, our sustenance, our livelihood, and the exercise of our Treaty rights;
- Impacts to fur bearing animal populations and their habitat including pine marten which are central to our trapping and an important part of our way of life, our sustenance, our livelihood, and the exercise of our Treaty rights;
- Changes in forest composition including a shift from extensive coniferous dominated stands to fragmented deciduous dominated stands;
- Failure to regenerate forests or failure to regenerate to their previous composition;
- Loss of productive land base through tertiary roads, machine trails, landings, mines, tailings, buildings, erosion, etc.;
- Loss of species and genetic diversity;
- Loss of shrubs, including berries and medicines including through the use of herbicides;
- Tainting of our medicines and rendering areas unfit for sacred medicine harvesting and ceremony;
- degradation of forest soils, including compaction, rutting, scarification, and erosion;

- Disruption of nutrient cycles including the depletion of calcium in our watersheds, leading to calcium deficiency in aquatic biota;

- Increased competition with non-Indigenous hunters and fishers using forest access roads and associated depletion of animal and fish populations;

- Increased road traffic and danger of collision of people and wildlife with forest industry vehicles;

- Loss of traditional travel routes, sacred places, heritage, and archaeological sites;

- Negative impacts on water quality, fish habitat, fish populations, and fish contaminants;

- Risk of increased violence against ANA people, including gender-based violence, from an influx in workers coming into the Territory to log, and the potential establishment of man camps;

- Lack of recognition of cultural Anishinaabe way of being;

- Violation of our inherent, Treaty, and Aboriginal rights; and

- Violation of ANA Law and the will of our people.

Failure to Effectively Regulate and Remediate

According to the Government of Ontario, there "are over 5,700 abandoned mine sites in Ontario that have over 17,000 mine features, known as hazards… Deaths due to mine hazards in Ontario are rare, but deaths happen in North America every year."[18]

As of 2015, only four mines were listed as fully closed out. Only three are identified as undergoing remediation. On the other hand, there were 56 abandoned mines with 629 contaminated sites meeting provincial criteria for liability recognition. A further 306 abandoned mines had over 3,000 contaminated sites that do not meet the criteria for liability recognition.[19]

There are already many abandoned mine sites in our Interim Area of Interest for Mining, mostly in the Red Lake Area, many of which have been left in an unremediated state for decades. A number are classified as dangerous by the Ministry.

According to the Ontario Auditor 2015 report, the Ministry of Mines has not estimated

[18] Ontario, "Abandoned mines hazards" (last updated February 17, 2023).
[19] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."

the total cost of rehabilitating the 4,400 abandoned mine sites in Ontario since 1993 and therefore does not know the current cost for doing so. It also does not have a long-term plan for rehabilitating these sites. These sites may pose risks to public health and safety and the environment.[20]

The Auditor General found that the "Ministry conducts minimal inspection and follow-ups on abandoned mines."[21] In the five years before the audit "the Ministry has inspected only about 6% (248) of abandoned mines to ensure that they do not pose a risk to public health and the environment."[22]

The Crown often assures us that despite the legacy of past bad practices, mining regulation is done safely now. To the contrary, the Auditor General found many glaring flaws in Ontario's regulatory regime for current mining, including that "Ontario is the only province in Canada that does not require a provincial environmental assessment to be performed for mining projects."[23] The Auditor General's report further explained that "in Ontario, the *Mining Act* only requires mining companies to submit closure plans prior to the development of the mine… In other provinces in Canada, larger mining projects automatically trigger a provincial environmental assessment."[24]

The Auditor General found that the closure plan process lacks sufficient funding, is subject to pro-industry bias, plans are not updated, and inspections are insufficient to ensure safety.

As of 2022, the government had not inspected nearly half of Ontario's operational mines since 2011.[25] The news media has also reported that Ontario senior officials are highly concerned that following several recent tailings dam failures "there is little to no legislative authority to prevent similar situations from occurring in Ontario."[26] According to the media the regulatory gap is outlined in a section of a briefing binder for Minister Pirie dedicated to "critical decisions. Senior bureaucrats, who told Minister Pirie that the gap in offline tailings dam rules was a "high-risk gap in the regulatory framework that requires urgent attention."

Far from improving the overall mining regulatory situation, the Government of Ontario has recently watered down its regulations with respect to requirements for closure planning and closure funding through the *Build More Mines Act*. The Act gives the Minister extremely broad discretion over nearly all aspects of mining including closure planning and funding. Under the new rules the position of Director of Mine Rehabilitation

---

[20] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program" at p. 444.
[21] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."
[22] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."
[23] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."
[24] Auditor General of Ontario (2015), "2015 Annual Report: chapter 3.11: Mines and Minerals Program."
[25] The Narwhal (June 24, 2023), "Ontario minister was privately urged to fix 'high-risk gap' to avoid mining disaster."
[26] The Narwhal (June 24, 2023), "Ontario minister was privately urged to fix 'high-risk gap' to avoid mining disaster."

was removed, Ministry staff no longer review closure plans and instead industry staff may carry out the review, contrary to the Auditor's 2015 recommendations.

Given this context, Grassy Narrows does not trust that the appropriate regulations are in place to ensure mining sites will be kept safe for many generations to come. You have not earned our trust.

Lack of Protected Areas, Need for Regional Balance.

There is an imbalance in the region because nearly all forests south of Red Lake are open to industrial mining. For example, much of our Territory is in ecodistrict 4S-2 where only 4.1% of the ecodistrict is protected. Part of our Territory is in ecodistrict 4S-3 where only 3.3% of the ecodistrict is protected. The lack of protection for our landscape is the clear outcome of an unbalanced landuse designation process that did not involve us meaningfully and ignored our rights and interests.

In contrast, conservation biology generally dictates that at least half of an ecosystem must be protected to avoid loss of biodiversity and ecosystem functions. Ontario has committed to community-based land use planning in the Far North based on a joint planning process between the First Nations and the province.[27] It committed to protecting 50% of the landbase in partnership with First Nations following First Nations-led landuse planning.

Canada has committed to protecting 30% of the land in Canada by 2030 in partnership with First Nations. Respecting ANA's efforts to protect our environment will contribute to the maintenance and recovery of biodiversity and ecosystem functions and will support a balance in this region, where the vast majority of forests have been open to industrial logging and mining.

Nature Based Climate Change Solutions

Climate change and biodiversity loss are major threats to Grassy Narrows and to the world. Nature based solutions have been identified as an important part of preventing and mitigating both problems. The boreal forest is one of the world's largest storehouses of carbon. After logging or clearing of the land for mining, much of this carbon is released from the forest, plants and soils, contributing to climate change. On the other hand, protecting forests helps to keep the carbon safely stored and safeguards biodiversity. These are important ecosystem-based services that contribute to mitigating climate change and that have a significant value.

Fighting climate change and biodiversity loss are important priorities for Grassy Narrows and for Canada and respecting Grassy Narrows' land protection will contribute to progress on these priorities.

---

[27] *Far North Act, 2010*, SO 2010, c 18.

VI. Mining activity without Grassy Narrows' consent risks conflict

Barrick writes that "[a]ny perceived or actual breach of … trust or respect can have devastating consequences for a mining venture or company, and these commercial and reputational consequences can extend well beyond any particular project or First Nation group." In so writing, Barrick raises the spectre of conflict minerals, also commonly knowns as blood minerals.

Global concerns about unethical practices by mining companies, including Canadian gold mining companies, have led to increased scrutiny of the social, environmental, and ethical practices of mining companies. For the mining industry, the problem with conflict minerals is that no one wants them. Conflict minerals are hard to market, and they increase corporate risks and uncertainties associated with investment, timelines, regulatory approvals, litigation, social conflict, and brand damage.

As a consequence, Ontario and Canada have sought to market themselves as stable, safe, ethical, jurisdictions from which to source conflict-free, or ethical minerals. While there are cheaper jurisdictions in which to operate, the conflict-free reputation of Ontario and Canadian minerals is a significant competitive advantage relative to many of other global mining jurisdictions.

However, as Barrick noted, for the mining industry and a mining jurisdiction, trust is hard to gain and easy to lose. It only takes one high profile conflict to taint an entire company, a sector and an entire jurisdiction and to undermine decades of marketing.

Ontario learned this lesson in the analogous conflict with Grassy Narrows over unwanted logging. After decades of unliterally forcing clearcuts on Grassy Narrows against their will, the First Nation turned to protests, boycotts, media campaigns, public education, litigation, and grassroots blockades. Within six years, major sourcing contracts were being threatened and shortly afterwards Abitibi, the world's largest newsprint producer, withdrew from Grassy Narrows Territory.

The City of Kenora, in their 2009 report to the Ontario Good Roads Association / Rural Ontario Municipalities Association, wrote that "[t]he issue with Grassy Narrows on the Whiskey Jack Forest must be resolved... Without resolution of these issues, **the wood coming off the Whiskey Jack Forest cannot be sold**. **There is no current customer willing to accept wood products from a forest unit which is involved in a perceived controversy."** (emphasis added)

This dynamic is beginning now with respect to mining. A long and growing list of mining companies, including Barrick, Trillium, Bounty, and Kenorland have voluntarily committed not to explore without consent or have left the area. Their withdrawal reflects an enduring reality in the mining industry where compliance with international law, third party certification standards, customer, investor, and shareholder expectations, and social license preclude the use of conflict minerals.

The Crown would be wise to avoid instigating conflict with Grassy Narrows again by approving unwanted mining. Controversy with Grassy Narrows about one mine could

taint the reputation of Ontario as a conflict-free place to mine. It could give the entire regional industry a stain that heightens risk and uncertainty and discourages investment throughout the supply and production chain.

The entire region and industry benefit from an environment free of conflict. It is in the interest of Ontario and industry to resolve, not inflame, the conflict with Grassy Narrows.

VII. Gold does not justify the impact to Grassy Narrows

Gold does not serve an essential and irreplaceable function in society. The largest use of gold by far is for jewelry, followed by investment and central banks demand. Technology, a distance fourth, used only six percent of gold production in 2022 (309t out of 4,721t produced globally). Much of that technology is electronics with short life spans and abysmal recycling rates.

Because gold is not essential, but is valuable, the rationale for mining gold by Great Bear and Kinross is purely financial. Shareholders demand a return on their investment, but Ontario need not repeat the mistake of sacrificing Grassy Narrows' rights and wellbeing for the interests of corporate shareholders.

The flow of resource wealth has been used to justify the damming of our river, dumping of mercury, logging of our trees, and now proposed gold mining. The impacts we have suffered from this approach are extreme and ongoing. The mine is projected to operate for a mere 25 years, but we will be here for many generations. No longer can the Crown and third-party companies seek to sacrifice our health, way of life, livelihood, rights, and environment for short term shareholder gains. Enough is enough.

It is important to remember that it is tourism, recreation and services – not resource extraction – that now forms the backbone of Kenora's employment. This shift is not due to a lack of available wood or minerals, but rather reflects increasing mechanization and marginal profitability in the extractive sector in contrast to the growing demand and labour intensiveness of the non-extractive sector. Grassy Narrows' work to protect our landscape and our environment have helped to foster Kenora's greatest economic strength.

The Kenora and Red Lake area enjoy substantial benefits for tourism, wildlife, hunters, fishers, trappers, recreational users, and non-extractive industries. According to the municipal website "[t]he City of Kenora has transitioned from a pulp and paper mill town to a destination and lifestyle community."[28]

The tourism and services industries are Kenora's largest employers by far. The visitor and cottager sectors contribute $300 million annually to the Kenora economy. In contrast, it is estimated that the Weyerhaeuser mill contributes $60 million to the local economy, even when counting indirect economic benefits throughout the region.

---

[28] City of Kenora, "Key Industries" (accessed January 23, 2021)

Kenora's tourism labour force makes up 38% (3,314 jobs) of Kenora's total employment, while Tourism related occupations account for 51.5% (4,405 jobs) of Kenora's total employment.[29] The growth of this industry is key to Kenora's economic plans.

According to the current Whiskey Jack Forest Management Plan ("FMP"), "[t]here are numerous tourist operators in the Whiskey Jack Forest. The recreational activities provided by these outfitters include options for fishing, hunting, camping and other eco-tourism opportunities. The number of individuals, residents and non-residents, procuring services from these tourist establishments are numerous, and they contribute a significant amount of economic resources to local communities ... The Sunset Country Economic Study reports that in 2001, 443 operators provided employment to 3,785 persons of which 1,221 were located in the Whiskey Jack Forest".[30]

In contrast, the Evolution gold mine in Red Lake employs 740 people, only a sixth of the number employed in tourism related jobs in Kenora and is chronically at risk of shutting down if profitability cannot be increased for its Australian owner.[31]

As set out in the Lake of the Woods Tourism Sector Report, "[o]ngoing investments in tourist services and resources only compliment the pristine natural environment that has attracted visitors to Lake of the Woods for over a century."[32]

The current FMP notes that "public and municipal officials should be aware that provincial parks help to make their communities attractive for business as well as for tourists and retirees. The retirement community brings in pension income, which is often indexed to inflation and is "recession proof'.[33]

Respecting and supporting Grassy Narrows' efforts to protect the landscape would contribute to the region's tourism economy and maintain opportunities to grow that economy as well as to become a leader in the conservation economy through future protected areas and associated eco-tourism attractions. A conservation economy creates long-term sustainable employment potential for local and regional residents by maximizing existing skills and knowledge.

VIII. A Choice, an Opportunity

Our youth are crying out. They want to see the land protected so that we can use it to heal our people and our spirits. This is reconciliation for us. They deserve to see the light at the end of the tunnel. We do not want to have to fight, again and again, to protect out land.

However, the community of Grassy Narrows is strong. We know our history, our rights,

---

[29] LOTW Tourism Sector Report (2017), pp. 37, 38.
[30] Whiskey Jack Forest FMP 2012-2022, p 95.
[31] CKDR 927 FM Dryden (June 19, 2020), "114 Layoffs at Red Lake Evolution Mine."
[32] LOTW Tourism Sector Report, 2017.
[33] Whiskey Jack Forest FMP 2012-2022, p 98.

our language, our teachings, and our way of life. We have allies across the country and across the world. The days of forcing harm on us against our will are over.

Respecting Grassy Narrows' land protection is the best available way to minimize conflict and move towards a path of reconciliation and respect for our inherent, Aboriginal and Treaty rights in compliance with international Indigenous rights standards.

Grassy Narrows has borne the brunt of the impacts of industry in the region, while our voice has long been ignored by Crown and industry decision makers. Part of the outcome of this mistreatment has been conflict over logging and one of Canada's most infamous environmental poisoning sagas. As a consequence, the region, and the country, has a stain on its honour, its reputation and credibility.

Times have changed. It is no longer acceptable, nor viable for the Crown to approve extractive industrial activities without Indigenous parties' consent. Across Canada there is a commitment and an expectation for reconciliation. We have an opportunity now to learn from the mistakes of the past and to heed the voice of Grassy Narrows. In the process, we can move from conflict to cooperation, from destruction to restoration, from harm to hope. Grassy Narrows invites the Crown to join us in righting this historical wrong. Respecting Grassy Narrows' land protection would be an important show of good faith that would be a positive step on the path towards reconciliation.

The Crown is at a crossroads.

On the one hand, the companies are proposing to open a large and toxic gold mine upstream from us against our will. If implemented, the mine risks irreparable harm to Grassy Narrows' rights and interests including, but not limited to, harms caused by cumulative effects, neglected obligations, Treaty infringement, harm to our health, release of mercury, and loss of way of life and livelihood. This harm would be immoral, unjustified, unreasonable, dishonourable, and a breach of Ontario's fiduciary duties to Grassy Narrows.

On the other hand, respecting Grassy Narrows land protection would have a beneficial impact on the exercise of Treaty rights and on the environment, cause no harm to anyone's health, and be beneficial for the growing non-extractive economy. There is an opportunity for calm that will allow ANA and the Crown to focus on long-term resolution of our issues and that will help ANA return to the health, self-determination, and prosperity that we once enjoyed.

We are inviting you to walk with us on the path of protection, healing and reconciliation. Will you work with us, or against us?

APPENDIX A

INTERIM Issues for Negotiation/Engagement/Consultation with MINES

August 18, 2023

1. Recognition and respect for ANA inherent, aboriginal and Treaty rights
2. Recognition and respect for the ANA Land Declaration
3. Recognition and respect for the ANA IPCA
4. Harmonization of Crown Law and ANA Law with respect to mining related activities
5. Repairing the Crown – ANA relationship with respect to mining related activities
6. Outstanding Ontario obligations to ANA including those arising out of the 1978 MOU and subsequent commitments such as increased ANA control and ownership over its land base
7. Land-use redesignation of the ANA IPCA
8. Interim measures including the withdrawal of the ANA IPCA from staking
9. Suspension of all mining exploration activities on the ANA IPCA and vicinity
10. Resolution of existing third-party mining interests on the ANA IPCA created by the Crown
11. Issuing a Notice of Caution for mining related activities on lands where ANA rights and interests could be impacted
12. MINES Minister's unfulfilled commitment of November 2021 to visit Grassy Narrows to discuss mining issues in an open forum.
13. Cumulative impacts of past mining related activities on ANA
14. Cumulative impacts of mining activities and other industrial and crown policy impacts on ANA including mercury
15. Resolution of issues arising from past mining related activities which have occurred without ANA consent (restoration, compensation, apology, etc.)
16. Ending Free Entry mining exploration and resolving the issues it has created
17. ANA concerns re off-site impacts and risks of existing mining activity (e.g. at Red Lake and Goliath mines, Red Lake and Separation Rapids exploration) on ANA
18. ANA concerns and MINES failure to take into account risk of off-site impacts of proposed mining exploration and other mining related activity on ANA (including downstream, migratory, downwind, landscape level, and other impacts)
19. Addressing ANA concerns re: Changes to the Mining Act
20. Addressing ANA concerns re: Regulation and enforcement of tailings management
21. Impacts of mining related activity on mercury mobilization and cycling
22. Impacts of mining related activity on Intact Forest Landscapes and associated values and ecosystem functions
23. Impacts of mining related activity on source water protection and source water planning and management
24. Impacts of mining related activity on moose, caribou, marten, fish, and other wildlife
25. Impacts of mining related activity on ANA sacred landscape, spirituality, ceremonies, medicines

26. Impacts of mining related activity on ANA land based healing
27. Impacts of mining related activity on ANA travel routes, camp sites, occupancy sites, burials, etc.
28. Impacts of mining related activity on ANA archaeological and historical values
29. Impacts of mining related activity on ANA safety, and risk of racial and gender based violence including man camps.
30. Unanswered correspondence from ANA to MINES and Ontario
31. Barriers to meaningful ANA engagement including the ongoing Mercury Crisis, housing crisis, water crisis suicide crisis
32. Reimbursement of past ANA expenses for unfunded engagement with the Crown and mining companies.
33. Capacity support required by ANA to begin meaningful engagement
34. ANA Consultation Area with respect to mining
35. Proposed and existing mining exploration and other mining related permits

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600–55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600–55, rue York
Toronto (Ontario) M5J 1R7

March 22, 2024 **Sent by email**

Chief Bill Petiquan
Wabauskang First Nation
P.O. Box 339
Ear Falls ON P0V 1T0

Subject: Notice of Opinion that a Federal Impact Assessment is Warranted for the Proposed Great Bear Gold Project and Next Steps

Dear Chief Bill Petiquan:

Thank you for your participation in the Planning Phase of the federal impact assessment process for the Great Bear Gold Project (the Project) as proposed by Kinross Gold Corporation (the Proponent).

The purpose of this letter is to:

- inform you of the Impact Assessment Agency of Canada's (the Agency) opinion that a federal impact assessment is warranted for the Project;
- provide advance notice that a comment period on the planning documents, including the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan will be announced in the coming weeks;
- invite your community to comment on whether the Project should be referred to an independent review panel or continue as an Agency-led impact assessment;
- remind your community of the **$5,000.00** participant grant fund to support your review of the draft documents; and
- invite your community to meet with the Agency prior to and during the upcoming comment period.

…/2

As noted in our correspondence dated December 28, 2023, the Supreme Court of Canada (SCC) issued its decision on the constitutionality of the *Impact Assessment Act* (the IAA) on October 13, 2023. Following this decision, the Government of Canada released the Statement on the Interim Administration of the *Impact Assessment Act* Pending Legislative Amendments[1] on October 26, 2023.

The SCC's decision does not change the duty of the Government of Canada to consult with Indigenous Peoples on the impacts of major projects. Further, the Agency remains committed to the United Nations Declaration on the Rights of Indigenous Peoples, including the need for meaningful engagement with Indigenous Peoples.

Agency's Opinion on Impact Assessment
The Agency reviewed the Proponent's Detailed Project Description received on February 23, 2024, which includes the responses to the Agency's Summary of Issues. Based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public, the Agency is of the opinion that a federal impact assessment is warranted for the Project.

The Summary of Issues, Detailed Project Description including the Proponent responses to the Summary of Issues, and the Agency's Notice of Opinion is available at: *https://iaac-aeic.gc.ca/050/evaluations/proj/85832.*

Advanced Notice of a Comment Period on Impact Assessment Planning Documents
The Agency is currently developing guidelines and a series of plans to define the scope, content, and conduct of the impact assessment.

The Agency anticipates holding a **comment period** on the following documents:

- draft Tailored Impact Statement Guidelines
- draft Indigenous Engagement and Partnership Plan
- draft Public Participation Plan
- draft Permitting Plan
- draft Cooperation Plan

For a description of each of these required Planning Phase documents, please see the Agency's Practitioner's Guide to Federal Impact Assessments.[2]

…/3

[1] *https://www.canada.ca/en/impact-assessment-agency/news/2023/10/government-of-canada-releases-interim-guidance-on-the-impact-assessment-act.html*
[2] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*

In the coming weeks, I will notify you of a comment period on the above-noted documents and specifically seek input from your community on the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan.

As the Consultation Lead for the Project, I welcome the opportunity to work collaboratively with your community in developing the Indigenous Engagement and Partnership Plan. In addition, I also invite you to identify features of a consultation process that would best suit your community.

Views about Referring to a Review Panel
Please note, the Minister of Environment and Climate Change Canada may refer the impact assessment of the Project to an independent review panel no later than 45 days after the end of the Planning Phase. If you have views on this aspect, you are welcome to provide them by the end of the forthcoming comment period at *GreatBear@iaac-aeic.gc.ca*.

Participant Grant Funding
As a reminder, to support Wabauskang First Nation's continued participation in the Planning Phase of the impact assessment process, including the review and comment on the draft documents listed above, a subsequent grant of **$5,000.00** will be available during the comment period. Thank you for confirming your interest in grant funding. An overview of eligible activities and expenses is enclosed (**Enclosure 1**). Following the Planning Phase, you will be able to apply for contribution funding to facilitate your community's participation throughout the subsequent phases of the federal impact assessment process. Additional grants may also be made available to support your participation during the assessment process.

Invitation to Meet with the Agency
If you are interested, the Agency wishes to schedule two meetings with your community:

- A virtual meeting in early-April 2024, in advance of the upcoming comment period, to introduce the concepts and purposes of the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, and to answer any questions you may have to prepare for the upcoming comment period. The Agency will follow up promptly to schedule this meeting.
- A virtual or in-person meeting during the forthcoming comment period, for a detailed discussion about the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, in relation to potential impacts on your community. The Agency encourages you to begin considering your community's availability and will contact you in the coming weeks to schedule this meeting.

…/4

Integration of Crown Consultation into the Impact Assessment Process
To support an appropriately scaled, resourced and flexible Crown consultation process, the Agency, on behalf of the Government of Canada, will form a Crown Consultation Team involving all relevant federal authorities who may have expertise to provide to inform the federal impact assessment.

In my role coordinating the Government of Canada's consultation process, I will:

- serve as point of contact within the Government of Canada for Indigenous communities in the federal impact assessment process;
- ensure project-related comments and concerns from Indigenous communities, federal authorities and the public are shared with the Proponent; and
- maintain an ongoing two-way dialogue and collaborative working relationship with Wabauskang First Nation focused on finding solutions to issues of concern.

More information on participation opportunities can be found in the Practitioner's Guide to Federal Impact Assessments on the Agency's website at: https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html.

IMPORTANT NOTE
Information submitted to the Agency to inform this project assessment may be posted online to the Canadian Impact Assessment Registry[3] (Reference #85832) subject to certain exceptions related to privacy, security, or confidentiality. The Agency's Submission Policy[4] describes what submitted information can be shared publicly, and what should remain private. For more information on how we protect your privacy, please refer to the Privacy Notice[5]. If you wish to provide comments or documents containing sensitive information that you believe should not be disclosed to the public, please contact the Agency before submitting them.

Should you wish to provide confidential Indigenous Knowledge, note that such Knowledge can be protected as described in our guidance about confidential Indigenous Knowledge[6], but that it must not be submitted via the Registry and you need to discuss confidentiality arrangements with the Agency prior to submitting any Indigenous Knowledge.

…/5

[3] *https://www.aeic-iaac.gc.ca/050/evaluations?culture=en-CA*
[4] *https://iaac-aeic.gc.ca/050/evaluations/participation/conditions*
[5] *https://www.iaac-aeic.gc.ca/050/evaluations/protection?culture=en-CA*
[6] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/protecting-confidential-indigenous-knowledge-under-the-impact-assessment-act.html*

If you have any questions or concerns, please do not hesitate to contact me at 365-292-4819 or by email at *GreatBear@iaac-aeic.gc.ca*. If there are specific times in the coming weeks that your community will be available for a meeting, please inform me at your earliest convenience.

Sincerely,

Jenny Espitia Contreras
Crown Consultation Coordinator
Impact Assessment Agency of Canada

Enclosures:
#1 – Overview of Eligible Expenses and Activities

c.c.: Aaron MacDonell, Kinross Gold Corporation
Ryan Haines, Wabauskang Resource Office
Reggie Bacon, Wabauskang Resource Office

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600–55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600–55, rue York
Toronto (Ontario) M5J 1R7

March 22, 2024 **Sent by email**

Chief Rudy Turtle
Grassy Narrows First Nation
General Delivery c/o Grassy Narrows Band Office
Grassy Narrows ON P0X 1B0

Subject: Notice of Opinion that a Federal Impact Assessment is Warranted for the Proposed Great Bear Gold Project and Next Steps

Dear Chief Rudy Turtle:

Thank you for your participation in the Planning Phase of the federal impact assessment process for the Great Bear Gold Project (the Project) as proposed by Kinross Gold Corporation (the Proponent). The Agency acknowledges receipt of your correspondence dated March 7, 2024, and will review and consider the information in the development of the forthcoming materials.

The purpose of this letter is to:

- inform you of the Impact Assessment Agency of Canada's (the Agency) opinion that a federal impact assessment is warranted for the Project;
- provide advance notice that a comment period on the planning documents, including the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan will be announced in the coming weeks;
- invite your community to comment on whether the Project should be referred to an independent review panel or continue as an Agency-led impact assessment;
- remind your community of the **$5,000.00** participant grant fund to support your review of the draft documents; and
- invite your community to meet with the Agency prior to and during the upcoming comment period.

…/2

As noted in our correspondence dated December 28, 2023, the Supreme Court of Canada (SCC) issued its decision on the constitutionality of the *Impact Assessment Act* (the IAA) on October 13, 2023. Following this decision, the Government of Canada released the Statement on the Interim Administration of the *Impact Assessment Act* Pending Legislative Amendments[1] on October 26, 2023.

The SCC's decision does not change the duty of the Government of Canada to consult with Indigenous Peoples on the impacts of major projects. Further, the Agency remains committed to the United Nations Declaration on the Rights of Indigenous Peoples, including the need for meaningful engagement with Indigenous Peoples.

Agency's Opinion on Impact Assessment

The Agency reviewed the Proponent's Detailed Project Description received on February 23, 2024, which includes the responses to the Agency's Summary of Issues. Based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public, the Agency is of the opinion that a federal impact assessment is warranted for the Project.

The Summary of Issues, Detailed Project Description including the Proponent responses to the Summary of Issues, and the Agency's Notice of Opinion is available at: *https://iaac-aeic.gc.ca/050/evaluations/proj/85832*

Advanced Notice of a Comment Period on Impact Assessment Planning Documents

The Agency is currently developing guidelines and a series of plans to define the scope, content, and conduct of the impact assessment.

The Agency anticipates holding a **comment period** on the following documents:

- draft Tailored Impact Statement Guidelines
- draft Indigenous Engagement and Partnership Plan
- draft Public Participation Plan
- draft Permitting Plan
- draft Cooperation Plan

For a description of each of these required Planning Phase documents, please see the Agency's Practitioner's Guide to Federal Impact Assessments.[2]

…/3

[1] *https://www.canada.ca/en/impact-assessment-agency/news/2023/10/government-of-canada-releases-interim-guidance-on-the-impact-assessment-act.html*

[2] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*

In the coming weeks, I will notify you of a comment period on the above-noted documents and specifically seek input from your community on the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan.

As the Consultation Lead for the Project, I welcome the opportunity to work collaboratively with your community in developing the Indigenous Engagement and Partnership Plan. In addition, I also invite you to identify features of a consultation process that would best suit your community.

Views about Referring to a Review Panel
Please note, the Minister of Environment and Climate Change Canada may refer the impact assessment of the Project to an independent review panel no later than 45 days after the end of the Planning Phase. If you have views on this aspect, you are welcome to provide them by the end of the forthcoming comment period at *GreatBear@iaac-aeic.gc.ca*.

Participant Grant Funding
As a reminder, to support Grassy Narrows First Nation's continued participation in the Planning Phase of the impact assessment process, including the review and comment on the draft documents listed above, a subsequent grant of **$5,000.00** will be available during the comment period. Thank you for confirming your interest in grant funding. An overview of eligible activities and expenses is enclosed (**Enclosure 1**). Following the Planning Phase, you will be able to apply for contribution funding to facilitate your community's participation throughout the subsequent phases of the federal impact assessment process. Additional grants may also be made available to support your participation during the assessment process.

Invitation to Meet with the Agency
If you are interested, the Agency wishes to schedule two meetings with your community:

- A virtual meeting in early-April 2024, in advance of the upcoming comment period, to introduce the concepts and purposes of the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, and to answer any questions you may have to prepare for the upcoming comment period. The Agency will follow up promptly to schedule this meeting.
- A virtual or in-person meeting during the forthcoming comment period, for a detailed discussion about the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, in relation to potential impacts on your community. The Agency encourages you to begin considering your community's availability and will contact you in the coming weeks to schedule this meeting.

…/4

Integration of Crown Consultation into the Impact Assessment Process
To support an appropriately scaled, resourced and flexible Crown consultation process, the Agency, on behalf of the Government of Canada, will form a Crown Consultation Team involving all relevant federal authorities who may have expertise to provide to inform the federal impact assessment.

In my role coordinating the Government of Canada's consultation process, I will:

- serve as point of contact within the Government of Canada for Indigenous communities in the federal impact assessment process;
- ensure project-related comments and concerns from Indigenous communities, federal authorities and the public are shared with the Proponent; and
- maintain an ongoing two-way dialogue and collaborative working relationship with Grassy Narrows First Nation focused on finding solutions to issues of concern.

More information on participation opportunities can be found in the Practitioner's Guide to Federal Impact Assessments on the Agency's website at: *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html.*

IMPORTANT NOTE
Information submitted to the Agency to inform this project assessment may be posted online to the Canadian Impact Assessment Registry[3] (Reference #85832) subject to certain exceptions related to privacy, security or confidentiality. The Agency's Submission Policy[4] describes what submitted information can be shared publicly, and what should remain private. For more information on how we protect your privacy, please refer to the Privacy Notice[5]. If you wish to provide comments or documents containing sensitive information that you believe should not be disclosed to the public, please contact the Agency before submitting them.

Should you wish to provide confidential Indigenous Knowledge, note that such Knowledge can be protected as described in our guidance about confidential Indigenous Knowledge[6], but that it must not be submitted via the Registry, and you need to discuss confidentiality arrangements with the Agency prior to submitting any Indigenous Knowledge.

…/5

[3] *https://www.aeic-iaac.gc.ca/050/evaluations?culture=en-CA*
[4] *https://iaac-aeic.gc.ca/050/evaluations/participation/conditions*
[5] *https://www.iaac-aeic.gc.ca/050/evaluations/protection?culture=en-CA*
[6] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/protecting-confidential-indigenous-knowledge-under-the-impact-assessment-act.html*

If you have any questions or concerns, please do not hesitate to contact me at 365-292-4819 or by email at *GreatBear@iaac-aeic.gc.ca*. If there are specific times in the coming weeks that your community will be available for a meeting, please inform me at your earliest convenience.

Sincerely,

Jenny Espitia Contreras
Crown Consultation Coordinator
Impact Assessment Agency of Canada

Enclosures:

#1 – Overview of Eligible Expenses and Activities

c.c.: Aaron MacDonell, Kinross Gold Corporation
Joseph Fobister, Grassy Narrows Lands Protection Team
Mike Fobister, Grassy Narrows Lands Protection Team
Jackie Esmonde, Grassy Narrows Lands Protection Team
Dan Mossip-Balkwill, Grassy Narrows Lands Protection Team
David Sone, Grassy Narrows Lands Protection Team

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600–55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600–55, rue York
Toronto (Ontario) M5J 1R7

March 22, 2024 **Sent by email**

Councillor Theresa Stenlund
Métis Nation of Ontario (Region 1)
621 Lakeview Drive – Unit 4
Kenora, ON P9N 3P6

Subject: Notice of Opinion that a Federal Impact Assessment is Warranted for the Proposed Great Bear Gold Project and Next Steps

Dear Councillor Theresa Stenlund:

Thank you for your participation in the Planning Phase of the federal impact assessment process for the Great Bear Gold Project (the Project) as proposed by Kinross Gold Corporation (the Proponent).

The purpose of this letter is to:

- inform you of the Impact Assessment Agency of Canada's (the Agency) opinion that a federal impact assessment is warranted for the Project;
- provide advance notice that a comment period on the planning documents, including the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan will be announced in the coming weeks;
- invite the Métis Nation of Ontario to comment on whether the Project should be referred to an independent review panel or continue as an Agency-led impact assessment;
- remind Métis Nation of Ontario of the **$5,000.00** participant grant fund to support your review of the draft documents; and
- invite Métis Nation of Ontario to meet with the Agency prior to and during the upcoming comment period.

…/2

As noted in our correspondence dated December 28, 2023, the Supreme Court of Canada (SCC) issued its decision on the constitutionality of the *Impact Assessment Act* (the IAA) on October 13, 2023. Following this decision, the Government of Canada released the Statement on the Interim Administration of the *Impact Assessment Act* Pending Legislative Amendments[1] on October 26, 2023.

The SCC's decision does not change the duty of the Government of Canada to consult with Indigenous Peoples on the impacts of major projects. Further, the Agency remains committed to the United Nations Declaration on the Rights of Indigenous Peoples, including the need for meaningful engagement with Indigenous Peoples.

Agency's Opinion on Impact Assessment

The Agency reviewed the Proponent's Detailed Project Description received on February 23, 2024, which includes the responses to the Agency's Summary of Issues. Based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public, the Agency is of the opinion that a federal impact assessment is warranted for the Project.

The Summary of Issues, Detailed Project Description including the Proponent responses to the Summary of Issues, and the Agency's Notice of Opinion is available at: *https://iaac-aeic.gc.ca/050/evaluations/proj/85832.*

Advanced Notice of a Comment Period on Impact Assessment Planning Documents

The Agency is currently developing guidelines and a series of plans to define the scope, content, and conduct of the impact assessment.

The Agency anticipates holding a **comment period** on the following documents:

- draft Tailored Impact Statement Guidelines
- draft Indigenous Engagement and Partnership Plan
- draft Public Participation Plan
- draft Permitting Plan
- draft Cooperation Plan

For a description of each of these required Planning Phase documents, please see the Agency's Practitioner's Guide to Federal Impact Assessments.[2]

…/3

[1] *https://www.canada.ca/en/impact-assessment-agency/news/2023/10/government-of-canada-releases-interim-guidance-on-the-impact-assessment-act.html*

[2] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*

In the coming weeks, I will notify you of a comment period on the above-noted documents and specifically seek input from Métis Nation of Ontario on the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan.

As the Consultation Lead for the Project, I welcome the opportunity to work collaboratively with the Métis Nation of Ontario in developing the Indigenous Engagement and Partnership Plan. In addition, I also invite you to identify features of a consultation process that would best suit the Métis Nation of Ontario.

Views about Referring to a Review Panel
Please note, the Minister of Environment and Climate Change Canada may refer the impact assessment of the Project to an independent review panel no later than 45 days after the end of the Planning Phase. If you have views on this aspect, you are welcome to provide them by the end of the forthcoming comment period at *GreatBear@iaac-aeic.gc.ca*.

Participant Grant Funding
As a reminder, to support the Métis Nation of Ontario's continued participation in the Planning Phase of the impact assessment process, including the review and comment on the draft documents listed above, a subsequent grant of **$5,000.00** will be available during the comment period. Thank you for confirming your interest in grant funding. An overview of eligible activities and expenses is enclosed (**Enclosure 1**). Following the Planning Phase, you will be able to apply for contribution funding to facilitate the Métis Nation of Ontario's participation throughout the subsequent phases of the federal impact assessment process. Additional grants may also be made available to support your participation during the assessment process.

Invitation to Meet with the Agency
If you are interested, the Agency wishes to schedule two meetings with the Métis Nation of Ontario:

- A virtual meeting in early-April 2024, in advance of the upcoming comment period, to introduce the concepts and purposes of the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, and to answer any questions you may have to prepare for the upcoming comment period. The Agency will follow up promptly to schedule this meeting.
- A virtual or in-person meeting during the forthcoming comment period, for a detailed discussion about the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, in relation to potential impacts on the Métis Nation of Ontario. The Agency encourages you to begin considering the Métis Nation of Ontario's availability and will contact you in the coming weeks to schedule this meeting.

…/4

Integration of Crown Consultation into the Impact Assessment Process
To support an appropriately scaled, resourced and flexible Crown consultation process, the Agency, on behalf of the Government of Canada, will form a Crown Consultation Team involving all relevant federal authorities who may have expertise to provide to inform the federal impact assessment.

In my role coordinating the Government of Canada's consultation process, I will:

- serve as point of contact within the Government of Canada for Indigenous communities in the federal impact assessment process;
- ensure project-related comments and concerns from Indigenous communities, federal authorities and the public are shared with the Proponent; and
- maintain an ongoing two-way dialogue and collaborative working relationship with the Métis Nation of Ontario focused on finding solutions to issues of concern.

More information on participation opportunities can be found in the Practitioner's Guide to Federal Impact Assessments on the Agency's website at: *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*.

IMPORTANT NOTE
Information submitted to the Agency to inform this project assessment may be posted online to the Canadian Impact Assessment Registry[3] (Reference #85832) subject to certain exceptions related to privacy, security or confidentiality. The Agency's Submission Policy[4] describes what submitted information can be shared publicly, and what should remain private. For more information on how we protect your privacy, please refer to the Privacy Notice[5]. If you wish to provide comments or documents containing sensitive information that you believe should not be disclosed to the public, please contact the Agency before submitting them.

Should you wish to provide confidential Indigenous Knowledge, note that such Knowledge can be protected as described in our guidance about confidential Indigenous Knowledge[6], but that it must not be submitted via the Registry and you need to discuss confidentiality arrangements with the Agency prior to submitting any Indigenous Knowledge.

…/5

[3] *https://www.aeic-iaac.gc.ca/050/evaluations?culture=en-CA*
[4] *https://iaac-aeic.gc.ca/050/evaluations/participation/conditions*
[5] *https://www.iaac-aeic.gc.ca/050/evaluations/protection?culture=en-CA*
[6] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/protecting-confidential-indigenous-knowledge-under-the-impact-assessment-act.html*

If you have any questions or concerns, please do not hesitate to contact me at 365-292-4819 or by email at *GreatBear@iaac-aeic.gc.ca*. If there are specific times in the coming weeks that the Métis Nation of Ontario will be available for a meeting, please inform me at your earliest convenience.

Sincerely,

Jenny Espitia Contreras
Crown Consultation Coordinator
Impact Assessment Agency of Canada

Enclosures:
#1 – Overview of Eligible Expenses and Activities

c.c.: Aaron MacDonell, Kinross Gold Corporation
Erin Reimer, Métis Nation of Ontario
Andrea Marcon, Métis Nation of Ontario

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600–55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600–55, rue York
Toronto (Ontario) M5J 1R7

March 22, 2024 **Sent by email**

Chief Clifford Bull
Lac Seul First Nation
P.O. Box 100 c/o Frenchman's Head Band Office
Hudson ON P0V 1X0

Subject: Notice of Opinion that a Federal Impact Assessment is Warranted for the Proposed Great Bear Gold Project and Next Steps

Dear Chief Clifford Bull:

Thank you for your participation in the Planning Phase of the federal impact assessment process for the Great Bear Gold Project (the Project) as proposed by Kinross Gold Corporation (the Proponent).

The purpose of this letter is to:

- inform you of the Impact Assessment Agency of Canada's (the Agency) opinion that a federal impact assessment is warranted for the Project;
- provide advance notice that a comment period on the planning documents, including the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan will be announced in the coming weeks;
- invite your community to comment on whether the Project should be referred to an independent review panel or continue as an Agency-led impact assessment;
- remind your community of the **$5,000.00** participant grant fund to support your review of the draft documents; and
- invite your community to meet with the Agency prior to and during the upcoming comment period.

…/2

As noted in our correspondence dated December 28, 2023, the Supreme Court of Canada (SCC) issued its decision on the constitutionality of the *Impact Assessment Act* (the IAA) on October 13, 2023. Following this decision, the Government of Canada released the Statement on the Interim Administration of the *Impact Assessment Act* Pending Legislative Amendments[1] on October 26, 2023.

The SCC's decision does not change the duty of the Government of Canada to consult with Indigenous Peoples on the impacts of major projects. Further, the Agency remains committed to the United Nations Declaration on the Rights of Indigenous Peoples, including the need for meaningful engagement with Indigenous Peoples.

Agency's Opinion on Impact Assessment

The Agency reviewed the Proponent's Detailed Project Description received on February 23, 2024, which includes the responses to the Agency's Summary of Issues. Based on the Agency's review of the Detailed Project Description and the responses to the Summary of Issues, along with the consideration of other factors, including comments received to date from Indigenous communities, federal authorities, provincial ministries, and the public, the Agency is of the opinion that a federal impact assessment is warranted for the Project.

The Summary of Issues, Detailed Project Description including the Proponent responses to the Summary of Issues, and the Agency's Notice of Opinion is available at: *https://iaac-aeic.gc.ca/050/evaluations/proj/85832.*

Advanced Notice of a Comment Period on Impact Assessment Planning Documents

The Agency is currently developing guidelines and a series of plans to define the scope, content, and conduct of the impact assessment.

The Agency anticipates holding a **comment period** on the following documents:

- draft Tailored Impact Statement Guidelines
- draft Indigenous Engagement and Partnership Plan
- draft Public Participation Plan
- draft Permitting Plan
- draft Cooperation Plan

For a description of each of these required Planning Phase documents, please see the Agency's Practitioner's Guide to Federal Impact Assessments.[2]

…/3

[1] *https://www.canada.ca/en/impact-assessment-agency/news/2023/10/government-of-canada-releases-interim-guidance-on-the-impact-assessment-act.html*

[2] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*

In the coming weeks, I will notify you of a comment period on the above-noted documents and specifically seek input from your community on the draft Tailored Impact Statement Guidelines and the draft Indigenous Engagement and Partnership Plan.

As the Consultation Lead for the Project, I welcome the opportunity to work collaboratively with your community in developing the Indigenous Engagement and Partnership Plan. In addition, I also invite you to identify features of a consultation process that would best suit your community.

Views about Referring to a Review Panel
Please note, the Minister of Environment and Climate Change Canada may refer the impact assessment of the Project to an independent review panel no later than 45 days after the end of the Planning Phase. If you have views on this aspect, you are welcome to provide them by the end of the forthcoming comment period at *GreatBear@iaac-aeic.gc.ca*.

Participant Grant Funding
As a reminder, to support Lac Seul First Nation's continued participation in the Planning Phase of the impact assessment process, including the review and comment on the draft documents listed above, a subsequent grant of **$5,000.00** will be available during the comment period. Thank you for confirming your interest in grant funding. An overview of eligible activities and expenses is enclosed (**Enclosure 1**). Following the Planning Phase, you will be able to apply for contribution funding to facilitate your community's participation throughout the subsequent phases of the federal impact assessment process. Additional grants may also be made available to support your participation during the assessment process.

Invitation to Meet with the Agency
If you are interested, the Agency wishes to schedule two meetings with your community:

- A virtual meeting in early-April 2024, in advance of the upcoming comment period, to introduce the concepts and purposes of the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, and to answer any questions you may have to prepare for the upcoming comment period. The Agency will follow up promptly to schedule this meeting.
- A virtual or in-person meeting during the forthcoming comment period, for a detailed discussion about the Tailored Impact Statement Guidelines and Indigenous Engagement and Partnership Plan, in relation to potential impacts on your community. The Agency encourages you to begin considering your community's availability and will contact you in the coming weeks to schedule this meeting.

…/4

Integration of Crown Consultation into the Impact Assessment Process
To support an appropriately scaled, resourced and flexible Crown consultation process, the Agency, on behalf of the Government of Canada, will form a Crown Consultation Team involving all relevant federal authorities who may have expertise to provide to inform the federal impact assessment.

In my role coordinating the Government of Canada's consultation process, I will:

- serve as point of contact within the Government of Canada for Indigenous communities in the federal impact assessment process;
- ensure project-related comments and concerns from Indigenous communities, federal authorities and the public are shared with the Proponent; and
- maintain an ongoing two-way dialogue and collaborative working relationship with Lac Seul First Nation focused on finding solutions to issues of concern.

More information on participation opportunities can be found in the Practitioner's Guide to Federal Impact Assessments on the Agency's website at: *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act.html*.

IMPORTANT NOTE
Information submitted to the Agency to inform this project assessment may be posted online to the Canadian Impact Assessment Registry[3] (Reference #85832) subject to certain exceptions related to privacy, security or confidentiality. The Agency's Submission Policy[4] describes what submitted information can be shared publicly, and what should remain private. For more information on how we protect your privacy, please refer to the Privacy Notice[5]. If you wish to provide comments or documents containing sensitive information that you believe should not be disclosed to the public, please contact the Agency before submitting them.

Should you wish to provide confidential Indigenous Knowledge, note that such Knowledge can be protected as described in our guidance about confidential Indigenous Knowledge[6], but that it must not be submitted via the Registry and you need to discuss confidentiality arrangements with the Agency prior to submitting any Indigenous Knowledge.

…/5

[3] *https://www.aeic-iaac.gc.ca/050/evaluations?culture=en-CA*
[4] *https://iaac-aeic.gc.ca/050/evaluations/participation/conditions*
[5] *https://www.iaac-aeic.gc.ca/050/evaluations/protection?culture=en-CA*
[6] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/protecting-confidential-indigenous-knowledge-under-the-impact-assessment-act.html*

If you have any questions or concerns, please do not hesitate to contact me at 365-292-4819 or by email at *GreatBear@iaac-aeic.gc.ca*. If there are specific times in the coming weeks that your community will be available for a meeting, please inform me at your earliest convenience.

Sincerely,

Jenny Espitia Contreras
Crown Consultation Coordinator
Impact Assessment Agency of Canada

Enclosures:

#1 – Overview of Eligible Expenses and Activities

c.c.: Aaron MacDonell, Kinross Gold Corporation
Karen Ningewance, Lac Seul First Nation
Haley Kocis, Lac Seul First Nation
Rod Bacon, Lac Seul First Nation
Tekay Nelson, Lac Seul First Nation

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

April 4, 2024

Attention: Anjala Purvanathan (Director, Ontario Region) (greatbear@iaac-aeic.gc.ca)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario M5J 1R7

Dear IAAC,

RE: The Great Bear Gold Mine Project

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or "Grassy Narrows First Nation"), we write in response to your March 22, 2024 correspondence to Chief Turtle advising of the Impact Assessment Agency of Canada's (the "Agency") opinion that a federal impact assessment is warranted for the Great Bear Gold Project proposed by Kinross Gold Corporation. In your correspondence you state that "the Agency remains committed to the United Nations Declaration on the Rights of Indigenous Peoples, including the need for meaningful engagement with Indigenous Peoples."

We remind you that the standard for consultation with Indigenous peoples under the United Nations Declaration on the Rights of Indigenous Peoples (the "Declaration") is free, prior, and informed consent. This is the standard of consultation that Grassy Narrows expects with respect to the Great Bear Gold Mine Project, which is consistent with Canada's commitments under the Declaration and the *United Nations Declaration on the Rights of Indigenous Peoples Act* ("UNDRIP Act") and Action Plan.

This letter is provided for the purpose of addressing the role of the Declaration in the Impact Assessment process and should not be taken as Grassy Narrows' comments on Phase 1 of the Impact Assessment.

The Declaration

The Declaration is clear that the standard for consultation with Indigenous peoples is consent:

> Article 32(2): States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

In 2016, Canada endorsed the Declaration "without qualification" and committed to its "full and effective implementation."[1]

The UNDRIP Act and Action Plan

Under Canada's UNDRIP Act, which provides a framework for Canada's implementation of the Declaration, Canada must ensure that federal laws are consistent with the Declaration. In doing so, Canada must harmonize the *Impact Assessment Act* ("IAA") processes with the Declaration, including Article 32. Canada's June 21, 2023 Action Plan also specifies that the IAA must be implemented in a manner consistent with the Declaration. Measure 51 of the Action Plan, which must be completed in partnership with Indigenous peoples, states that "the Impact Assessment Agency will implement the *Impact Assessment Act* (IAA) in a way that aligns with the objectives and spirit of the UN Declaration." In particular, this includes "carrying out impact assessments in a manner that emphasizes the need to seek free, prior, and informed consent."

Grassy Narrows expects that the Agency will carry out the federal impact assessment process for the Great Bear Gold Project in a manner consistent with the Declaration and that respects Grassy Narrows' right to give or to withhold our free, prior, and informed consent. Anything less would be contrary to Canada's commitments under the Declaration, its own UNDRIP Act and recent Action Plan, and the Crown's stated efforts to "advance reconciliation in a tangible way."[2]

In particular, we urge you to:

a. Carry out the Impact Assessment using a process that is appropriate for Grassy Narrows' unique circumstances, is co-created with Grassy Narrows, and has Grassy Narrows' consent.
b. Pause the Impact Assessment process until the concerns expressed in Grassy Narrows' previous letters have been resolved and Grassy Narrows' consent for the Impact Assessment process is obtained.
c. Include within the scope of the Impact Assessment the question of whether Grassy Narrows' free, prior, and informed consent for the project has been obtained consistent with the Declaration.
d. Ensure that the scope of the Impact Assessment includes all activities that may impact Grassy Narrows' rights and interests.
e. Ensure that no impacts to Grassy Narrows from the project in areas of federal authority are authorized unless Grassy Narrows' free, prior, and informed consent is obtained.
f. Ensure that the decision outcome of the Impact Assessment process has Grassy Narrows' free, prior, and informed consent.
g. Not authorize or otherwise allow the project to proceed without Grassy Narrows' free, prior, and informed consent.

Please provide a written response to this letter, and a written explanation as to how Article 32 of the Declaration will be implemented in the Impact Assessment process in a manner consistent with the Declaration.

[1] https://www.rcaanc-cirnac.gc.ca/eng/1524502914394/1557512757504
[2] https://www.justice.gc.ca/eng/declaration/ap-pa/index.html

The Grassy Narrows Lands Protection Team is willing to meet with the Agency to further discuss the federal Impact Assessment process and our preliminary concerns with the Project as set out in Chief Turtle's March 7, 2024 correspondence to the Agency.

Sincerely,

Joseph B. Fobister
Lead Negotiator, Grassy Narrows Lands Protection Team

Cc:

Chief Rudy Turtle, Chief of Grassy Narrows First Nation (rudyturtle@outlook.com)

Grassy Narrows Lands Protection Team
Mike Fobister, Supervisor (mike.fobister@googlemail.com)
Dan Mossip-Balkwill, Advisor (dan.mossip.balkwill@gmail.com)
David Son, Advisor (david.sone@gmail.com)
Jackie Esmonde, Legal Counsel (jesmonde@cavalluzzo.com)
Sydney Lang, Legal Counsel (slang@cavalluzzo.com)

Impact Assessment Agency Canada
Natalie Boyd, Project Manager (greatbear@iaac-aeic.gc.ca)
Ian Lindsay, Senior Consultation Analyst (greatbear@iaac-aeic.gc.ca)

Kinross / Great Bear
Aaron MacDonell, Director of Environmental Services (aaron.macdonell@kinross.com)
Mac Potter, External Relations Manager (mac.potter@kinross.com)

Ontario Ministry of Mines
Patrick Barnes, Consultation and Aboriginal Treaty Rights Advisor (patrick.m.barnes@ontario.ca)
Teri McDonald, Indigenous Consultation and Partnerships Branch (teri.mcdonald@ontario.ca)

Ontario Ministry of Indigenous Affairs
Candice Telfer, Acting Assistant Deputy Minister, Negotiations and Reconciliation Division (candice.telder@ontario.ca)

Indigenous Services Canada
Michelle Kovacevic, Associate Deputy Minister (michelle.kovacevic@sac-isc.gc.ca)
Julia Gregory, Policy Analyst, Lands and Economic Development (julia.gregory@sac-isc.gc.ca)

Crown-Indigenous Relations
Rob Wright, Associate Deputy Minister (rob.wright@rcaanc-cirnac.gc.ca)

KINROSS Great Bear

4 April 2024

Great Bear Resources Ltd.'s (GBR) Preliminary Response to ANA Specific Concerns noted in its 6 March 2024 Letter

- This table outlines GBR's preliminary response to the specific concerns that ANA noted in its letter on 6 March 2024 (**ANA Letter**)
- GBR seeks to establish and maintain good relations with local Indigenous communities whose interests may be affected by its Project. As part of that effort, GBR will engage with those communities to explain our Project, listen to their interests, and work to reconcile the various interests with our interests.
- Many of the specific concerns in the ANA Letter relate to the mine phase of the Project and are already included within the scope of the planned Project study. GBR will respond to these concerns during the upcoming federal impact assessment (**IA**) of the Project.
- For the concerns that are relevant to GBR's Advanced Exploration (**AEX**) Permit, GBR has responded to those concerns as set out in the table below.
- Great Bear will continue to engage with ANA as the Project proceeds through further stages of review to gather information about ANA's interests to inform its Project planning and respond to reasonable concerns as appropriate.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
1.	The Great Bear Gold Project falls within the area that Grassy Narrows people have historically and currently use for the exercise of our rights and way of life. It is also upstream from our community. Pollutants in the water and impacts on the surrounding land, fish and wildlife will have a direct impact upon us and could also exacerbate mercury contamination in our waterways.	GBR understands that water quality is an important issue for Indigenous communities in the area. GBR will assess the potential for impacts to water, land, fish and wildlife in the Impact Statement for the main mine phase of the Project. That review of the issue will occur during the upcoming federal IA. On 28 July 2023, GBR provided ANA with additional information on potential impacts to fish, fish habitat and water quality regarding the AEX project. Further information is set out in the attached memo on water quality. Great Bear will install state-of-the-art water treatment facilities as part of the AEX program of work. The water treatment plant targets removal of metals and ammonia by both biological, chemical treatment and ultrafiltration of particles in the water to less than one micron. Great Bear is also funding an independent evaluation of water quality in the region that will be conducted by LSFN and WFN.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
2.	Grassy Narrows people fish extensively on the English River around Grassy Narrows. Grassy Narrows people also fish on the English River and its tributaries near the inflow of the Chukuni River. We are aware that the fish that we eat swim a distance of 30 km, or more, up and downstream in the course of their lifecycle and are exposed to, and bioaccumulate, toxins throughout their travels. In particular, our walleye travel long distances upstream in order to spawn.	GBR welcomes further discussion with ANA on fishing on the Chukuni River by Grassy Narrows people to inform our assessment of potential for impacts to Indigenous communities and peoples in the Impact Statement. On 28 July 2023, GBR provided ANA with additional information on potential impacts to fish, fish habitat and water quality regarding the AEX project. Further information is set out in the attached memo on water quality.
3	Caribou are an important clan animal to Grassy Narrows and used to be seen throughout our Territory. The Great Bear Gold Project area is within the range of the Sydney Caribou herd, the last remaining herd in our Territory. This range is already degraded beyond the threshold at which it is able to sustain Caribou in the long term, unless its intactness is restored. All of the habitat within the range is considered critical.	GBR understands that caribou are important to Grassy Narrows, and other Indigenous communities. GBR will include moose, caribou and other wildlife as Valued Components in the Impact Statement. The potential direct and indirect to moose, caribou, and other wildlife (such as loss of habitat) as well as cumulative effects will be assessed in the Impact Statement.
4	In addition, Grassy Narrows must be consulted on activities that may have off-site impacts on our territory, such as downstream, downwind, or migratory species impacts. Grassy Narrows continues to document the full extent of its Territory and the “ANA Preliminary Area of Interest With Respect to Mining” is without prejudice to the determination of the full geographical extent of Grassy Narrows’ Territory.	GBR welcomes future opportunity to discuss the Project with Grassy Narrows and consult on potential impacts.
5	Industrial disturbances will release even more mercury into our ecosystem and further impair our Treaty rights.	GBR is currently completing studies to determine the potential effects of the Main Mine Project on the environment, including the potential for direct or indirect changes to mercury in the ecosystem. That study will help inform the Impact Statement, which will assess the potential impacts from the Project, including the potential for direct or indirect releases of mercury to air, water, land and biota. On 28 July 2023, GBR provided ANA with additional information on potential impacts to fish, fish habitat and water quality regarding the AEX project. Further information is set out in the attached memo on water quality.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
6	Mining exploration and mining activities often have the effect of artificially changing water levels. This can happen through water takings, water discharges, dewatering of areas, and other industrial processes. Studies have found that the artificial lowering and raising of water levels in boreal water bodies often causes the release of mercury.	GBR is completing environmental baseline studies to document the status of mercury at the site and local area. Most mercury in the environment is in the form of inorganic mercury which tends not to accumulate in the food chain. Under low oxygen (anoxic) conditions, such as flooded landscapes, a portion of the inorganic mercury gets converted to methyl mercury. Water level increases can cause flooding and associated anoxic (low oxygen) conditions which can increase concentrations of methyl mercury from mercury already present in the environment. GBR is aware of this process and have incorporated this it into the Project design. GBR does not expects any changes in water levels from the AEX work that may cause any flooding.
7	Mining exploration and mining activities also risk altering water quality in ways that increase the methylation of existing mercury in downstream watersheds. This can be through the addition of sulfate, change in acidity, water colour, temperature, and other parameters. In Grassy Narrows, where mercury levels are already elevated by emissions from Dryden, any increase in net methylation is intolerable.	The potential for changes in mercury content in waters surrounding the site will be assessed in the Impact Statement. On 28 July 2023, GBR provided ANA with additional information on potential impacts to fish, fish habitat and water quality regarding the AEX project. Further information is set out in the attached memo on water quality.
8	Large parts of the site will be deforested for decades at least. Three open pit mines will be created along with three underground mines, large tailings holding areas will be created, and a large ore processing facility will be built. The project area will effectively be completely removed for the foreseeable future from the land base that is accessible to us to live our way of life and to practice our rights.	GBR acknowledges that development of the Project will affect the vegetation within the Project footprint and trees will require time to regrow after closure. There has been a long history of forestry in the region. Where reasonable, GBR has preferentially used existing infrastructure corridors / lands already affected by forestry industry and aggregate resource practices to minimize cumulative effects. GBR welcomes additional information regarding how development of the Project will affect how Grassy Narrows people exercise their rights.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
9	It also appears that water bodies including lakes and creeks on the site will be at extremely risk because they will be located immediately adjacent to and downstream / downgradient of heavy industrial operations including mining, ore processing, and tailings storage. We are concerned that the on-site water bodies will be damaged and we know that once they are damaged it can be hundreds, if not thousands of years before they are safe again.	GBR has been completing environmental baseline studies to document the status of waterbodies at the site and local area, not limited to water quality, flows / water levels, and fish presence and habitat. The potential for direct and indirect effects to the local and downstream waterbodies from the Project will be assess in the Impact Statement.
10	We fear that the impacts from the Great Bear Gold Project site will extend far beyond the mine site itself, further disrupting the balance of the environment that the Creator has established for us and which gives us what we need for a good life.	The Impact Statement will assess both direct and indirect effects from the Project on the natural and human environment. GBR welcomes further information on how Grassy Narrows people exercise their rights in the Project site and environs, to improve the assessment of potential effects and cumulative effects
11	Water quality changes that may appear innocuous in themselves, and which are not regulated, can alter the cycling of pollutants, nutrients, and other aquatic processes in damaging ways. For example, dissolved organic carbon (DOC), sulphate, and other substances are a naturally occurring part of aquatic ecosystems and are not considered toxic. However, they known to play a strong role in mercury cycling affecting mercury speciation, solubility, mobility, and toxicity in the aquatic environment. Alteration of water chemistry can have serious consequences.	GBR has been completing environmental baseline studies to document the current status of water quality at the site and local area and will be completing modelling to assess the potential for water quality changes from the Project. The Impact Statement will summarize the findings and will consider indirect effects related to water quality changes. On 28 July 2023, GBR provided ANA with additional information on potential impacts to fish, fish habitat and water quality regarding the AEX project. Further information is set out in the attached memo on water quality. GBR is also funding an independent evaluation of the Water Quality in the Region that will be conducted by Wabauskang and LacSeul First Nations. GBR is collaborating with Wabauskang and LacSeul First Nation's on implementing Adaptative Management and Monitoring Plans for the AEX project.
12	The wind can carry pollutants and other chemicals long distances before they are breathed by our people and deposited on the ground and in the water.	The potential for changes to local and regional air quality from the Project will be assessed in the Impact Statement. Information regarding any potential impacts to air regarding the AEX project were addressed in the information provided to Grassy Narrows on Sept, 28 2023.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
13	Off-site impacts can also happen through animals, fish, and birds and other forms of life that travel. If moose can no long find winter refuge on the project site, or if roads, trails and clearings created associated with the project increase access and success for non- native hunters and predators, then fewer moose will be available to hunt. That impact will not be restricted to the boundary of the project site but will extend as far as a moose would range from the project site, or conversely the area from which moose would range into the project site and face predation, hunting, and lack of suitable habitat. Other animals like wolverine, wolf, bear and cougar travel even further distances. Impacts to their populations, their travel routes, and their hunting success in turn influence the populations of the moose, caribou, rabbits, and other animals that are important to us.	GBR appreciates ANA's input that moose, caribou, rabbits, and other animals are important wildlife to Grassy Narrows. GBR will include moose, caribou, and other wildlife as Valued Components in the Impact Statement. The potential direct and indirect to moose, caribou, and other wildlife (such as loss of habitat) as well as cumulative effects will be assessed in the Impact Statement We welcome receiving Indigenous knowledge that Grassy Narrows is willing to share regarding the following and related aspects: - Moose ranges - Wolverine, wolf, bear and cougar travel routes - Species important to Grassy Narrows
14	Beyond the on-site and off-site impacts, the project will have landscape-level impacts. Looking at each site in isolation fails to see that the landscape as a whole and its many processes and functions that sustain life. The many parts of the landscape work together, each playing their part. If one is disturbed, then all are disturbed. If too many are disturbed, then the landscape's ability to sustain our good Anishinaabe way of life can be severely undermined. Indeed, this is what we experienced in the southern part our Territory where no single project alone caused the local extinction of caribou, but rather it was a death of a thousand cuts as more and more impacts over time made the landscape unable to sustain caribou. We know that the landscape in the range of the Sydney Caribou herd already exceeds this disturbance	The potential for effects to terrestrial and aquatic habitat will be assessed in the Impact Statement. Cumulative effects will also be assessed, which considered past, current and proposed developments in addition to the Great Bear Project. GBR welcomes Grass Narrows further information would share regarding the Anishinaabe way of life to help with the preparation of related aspects in the Impact Statement. The potential for direct and indirect to moose, caribou, and other wildlife (such as loss of habitat) will be assessed in the Impact Statement.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
	threshold and is need of recovery. The Gold Bear Gold project will add further disturbance, making the local extinction of caribou even more likely.	
15	Woodland Caribou – the project site is within the range of the Sydney Caribou Herd. The range of the Sydney Caribou Herd is currently approximately 64% disturbed (likely higher due to recent fires in Woodland Caribou Provincial Park). This amount of disturbance exceeds the threshold above which the range becomes unlikely to be able to support a viable caribou population. The range is in need of recovery to lower the level of disturbance and therefore the entire range is considered critical habitat. The project will add disturbance, further degrading the ability of the range to sustain caribou and increasing the likelihood that Woodland Caribou, a threatened species, will be extirpated from this area. Caribou is an important clan animal for Grassy Narrows.	GBR understands that caribou are important to Grassy Narrows, and other Indigenous communities. GBR will include moose, caribou and other wildlife as Valued Components in the Impact Statement. The potential direct and indirect to moose, caribou, and other wildlife (such as loss of habitat) as well as cumulative effects will be assessed in the Impact Statement
16	Although they behave very differently, moose also rely on a healthy landscape. When there is too much industry, the dense mature conifer forests that moose require for winter shelter become too small, fragmented, and scattered to support moose. When too may roads are put in, outside hunters gain easier access, and when clearings are made those hunters have higher kill rates. When the forest becomes too disturbed, the deer move in, and with them comes sicknesses that hurt the moose.	GBR understands that moose are important to Grassy Narrows, and other Indigenous communities. GBR will include moose, caribou and other wildlife as Valued Components in the Impact Statement. The potential direct and indirect to moose, caribou, and other wildlife (such as loss of habitat) as well as cumulative effects will be assessed in the Impact Statement
17	Wolverine – Wolverine play an important and unique role in our ecosystem and in the balance of life. The company has indicated that wolverine have been observed on the project site using trail cameras. Direct observation of wolverines is a rare. Wolverine avoid humans and human impacted areas. The project is almost certain to permanently displace the wolverine that have been observed at the site and to destroy any wolverine dens, trails, habitat, and food sources that are on the site.	GBR has identified Wolverine as a potential Valued Component for the Impact Statement, whereby direct and indirect to Wolverine (such as loss of dens, habitat and trails) will be assessed in the Impact Statement. GBR welcomes input from Grassy Narrows to inform the assessment of Wolverine impacts, and any unique aspects from other wildlife.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
18	Sturgeon – Sturgeon are an important clan animal in Grassy Narrows an important food source for the Anishinaabe of the Treaty 3 area. The damming of the English River has had a big impact on sturgeon. A small and delicate population remains in the river, which we are trying to protect and recover. Sturgeon live for many years, are sensitive to industrial disturbances, and can accumulate large amounts of toxins in their bodies.	GBR understands that Sturgeon is important to Grassy Narrows. Aquatic baseline investigations have been completed since 2022 in the waterbodies at the Great Bear Project site. To date, Sturgeon has not been identified as present within the waterbodies studied. GBR welcomes knowledge regarding the presence of Sturgeon near the Project site that Grass Narrows would share, including within the Chukuni River to inform the preparation of the Impact Statement.
19	Federal involvement is required because of the numerous areas of claimed federal jurisdiction that will be affected by the Great Bear Gold project, including the completion of a Federal Impact Assessment.	GBR has submitted an Initial Project Description and Detailed Project Description to the Impact Assessment Agency of Canada, as required by the Designated Projects Regulation, and expects that the impact assessment process pursuant to the Federal *Impact Assessment Act* will be required.
20	Given the constraints that we have noted, it is not possible to provide a comprehensive list of concerns here. However, some further concerns that we have identified to date, which will require future elaboration, include: - The contamination of the water within our Territory and water that flows into our Territory from effluents, discharges, by-products, leaching (including of metals), and changes in mercury cycling - The creation of acid rock drainage and other forms of toxic drainage - Changes to the flow, level, and quality of our water from water takings and discharges. - The contamination of our air and air that flows into our Territory - The loss of our caribou and moose, and of those who travel into and out of our Territory through impacts including habitat degradation and outside hunting pressure	GBR appreciates receiving this preliminary list of concerns. Most of these topics were already planned to be considered as topics in the Impact Statement. We welcome the opportunity for additional discussion on these and other aspects including other concerns. Note that GBR does not intend to use herbicide on the Property. We would appreciate receiving Indigenous Knowledge on the following and other aspects that you are willing to share to inform the Impact Statement preparation: - Caribou and moose travel routes - Commercial and sport fishing - Trapping and other harvesting of fur bearers including pine marten - Old growth forest areas - Sacred areas

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
	- Disrupting the delicate balance of animals, predators, prey, and the web of life that supports us. - The contamination and loss of our fish for food, commercial fishing, sport fishing, and way of life, including fish that migrate in and out of our Territory - The loss and contamination of our birds and insects including migratory birds - The loss of our valuable fur bearing animals including marten and otter - The fragmentation and degradation of our forests and the loss of intact forest landscapes and old growth forest areas - The changing of mercury exports and mercury cycling, including methylation - The creation of additional anxiety, fear, depression, disempowerment, and despair among our people - The further disruption of our society, our culture, and our way of life. - The exacerbation of our suicide crisis - The desecration of our sacred landscape - The disturbing of spirits and beings that live in the rocks - The tainting of our medicines - The disruption of our people who are out on the land living their way of life - The loss of peace and quiet for our people who are out on the land - The loss of the ability to use the land as a healing place for our people	- Spirits and beings that live in the rocks - Traditional medicines - Use of local lands for people land living their way of life - Traditional travel routes, sacred places, heritage, and archaeological sites.

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
	- The loss of our ability to teach our kids our way of life, identity, knowledge, and ways of wellness - Impacts to our individual and collective health and wellbeing - The loss of our ability to make a living in a way that is harmonious with our culture - The violation of our Indigenous laws and jurisdiction - The violation of our Treaty rights, our Treaty relationship - Impacts to game animal populations and their habitat including moose, and caribou which are central to our hunt and an important part of our way of life, our sustenance, our livelihood, and the exercise of our Treaty rights; - Impacts to fur bearing animal populations and their habitat including pine marten which are central to our trapping and an important part of our way of life, our sustenance, our livelihood, and the exercise of our Treaty rights; - Changes in forest composition including a shift from extensive coniferous dominated stands to fragmented deciduous dominated stands; - Failure to regenerate forests or failure to regenerate to their previous composition - Loss of productive land base through tertiary roads, machine trails, landings, mines, tailings, buildings, erosion, etc.; - Loss of species and genetic diversity; - Loss of shrubs, including berries and medicines including through the use of herbicides;	

#	ANA SPECIFIC CONCERN	GREAT BEAR RESPONSE
	- Tainting of our medicines and rendering areas unfit for sacred medicine harvesting and ceremony; - Degradation of forest soils, including compaction, rutting, scarification, and erosion; - Disruption of nutrient cycles including the depletion of calcium in our watersheds, leading to calcium deficiency in aquatic biota; - Increased competition with non-Indigenous hunters and fishers using forest access roads and associated depletion of animal and fish populations; - Increased road traffic and danger of collision of people and wildlife with forest industry vehicles; - Loss of traditional travel routes, sacred places, heritage, and archaeological sites; - Negative impacts on water quality, fish habitat, fish populations, and fish contaminants; - Risk of increased violence against ANA people, including gender-based violence, from an influx in workers coming into the Territory to log, and the potential establishment of man camps; - Lack of recognition of cultural Anishinaabe way of being; - Violation of our inherent, Treaty, and Aboriginal rights; and Violation of ANA Law and the will of our people.	

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

Attention: Minister George Pirie (Minister of Mines) (minister.mines@ontario.ca)
99 Wellesley Street West
Room 5630, Whitney Block
Toronto, Ontario M7A 1W3

Attention: Anjala Puvanathan (Director, Ontario Region) (greatbear@iaac-aeic.gc.ca)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario M5J 1R7

Attention: Aaron MacDonell, Director of Environmental Services (aaron.macdonell@kinross.com)
Mac Potter, External Relations Manager (mac.potter@kinross.com)
Great Bear Resources Ltd. A Kinross Company
104 Howey Street
Red Lake, Ontario P0V 2M0

Dear MINES, IAAC, Kinross and Great Bear Resources:

RE: The Great Bear Gold Mine Project

I wrote to you on March 29 and April 15 to provide initial findings from Dr. Kevin Morin concerning metal leaching and acid rock drainage, water quality and hydrogeology with respect to the Great Bear Gold Project.

Please find enclosed:

- Dr. Morin's response to Kinross Gold's consultant, WSP. He concludes that he remains concerned about the many potential environmental impacts that are not recognized and not anticipated by Kinross Gold and about the many impacts that are recognized but poorly addressed and characterized. His concerns pertain to both the proposed advanced exploration and the proposed mining.

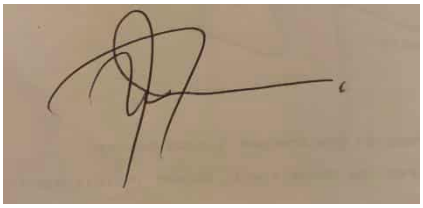
- Dr. Morin's report following his review of the technical documents provided to Grassy Narrows to date: Project Definition; Geochemical Characterization Workplan; Advanced Exploration Program Reclamation Strategy; Program Closure Plan (Draft for Indigenous Review); Hydrogeological Workplan; Surface

Water Quality Workplan; Fugitive Dust Best Management Practices Plan; PTTW Application for Dewatering; Draft Detailed Project Description; Water Treatment during Proposed Exploration and Proposed Mining.

Based on Dr. Morin's export reports, Grassy Narrows is extremely concerned that the project is moving ahead swiftly in the absence of required information and at great risk to the environment, the health, inherent, Treaty and Indigenous rights of Grassy Narrows.

I repeat Grassy Narrows' call to freeze the regulatory process work on this project until full credible information is available and the barriers to Grassy Narrows' meaningful involvement have been resolved. I also repeat Grassy Narrows' position that this project, including the extensive mining of valuable ore that the company is calling "bulk sampling", must be subjected to a rigorous environmental assessment.

Miigwetch,



Joseph B. Fobister, Lead Negotiator of Grassy Narrows Lands Protection Team

CC:

Grassy Narrows Lands Protection Team
Joseph Fobister, Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Supervisor (mike.fobister@googlemail.com)
Dan Mossip-Balkwill, Advisor (dan.mossip.balkwill@gmail.com)
David Sone, Advisor (david.sone@gmail.com)
Jackie Esmonde, Legal Counsel (jesmonde@cavalluzzo.com)

Ontario Ministry of Mines
Susanna Laaksonen-Craig (deputy.mines@ontario.ca) (Deputy Minister, MINES)
Patrick Barnes (patrick.m.barnes@ontario.ca) (MINES Consultation and Aboriginal Treaty Rights Advisor)
Neal Bennett (neal.bennett@ontario.ca) (MINES Acting Regional Manager Thunder Bay Office)
Teri McDonald (teri.mcdonald@ontario.ca) (MINES Indigenous Consultation and Partnerships Branch)

Ontario Ministry of Natural Resources and Forestry
Minister Graydon Smith (minister.mnrf@ontario.ca)
Drew Vanderduim (deputy.mnrf@ontario.ca) (Deputy Minister MNRF)

Ontario Ministry of Indigenous Affairs

Minister Greg Rickford (minister.indigenousaffairs@ontario.ca)
Shawn Batise (shawn.batise@ontario.ca) (Deputy Minister, Ontario Ministry of Indigenous Affairs)
Emily Vassos (Emily.vassos@ontario.ca) (Chief of Staff, Minister's Office, Ontario Ministry of Indigenous Affairs)
Candice Telfer (Candice.telfer@ontario.ca) (Acting Assistant Deputy Minister, Negotiations and Reconciliation Division)

Ontario Ministry of Environment Conservation and Parks
Minister Andrea Khanjin (minister.mecp@ontario.ca)
Serge Imbrogno (serge.imbrogno@ontario.ca) (Deputy Minister)

Crown-Indigenous Relations
Minister Gary Anandasangaree (gary.anandasangaree@rcaanc-cirnac.gc.ca)
Valerie Gideon (valerie.gideon@rcaanc-cirnac.gc.ca) (Deputy Minister)
Rob Wright (rob.wright@rcaanc-cirnac.gc.ca) (Associate Deputy Minister)

Indigenous Services Canada
Minister Patty Hajdu (ministresa-ministeris@sac-isc.gc.ca)
Gina Wilson (gina.wilson@sac-isc.gc.ca) (Deputy Minister)
Michelle Kovacevic (michelle.kovacevic@sac-isc.gc.ca) (Associate Deputy Minister)
Julia Gregory (julia.gregory@sac-isc.gc.ca) (ISC, Policy Analyst; Lands and Economic Development)

Canada - Ministry of Environment and Climate Change
Minister Steven Guilbeault (steven.guilbeault@parl.gc.ca) (Minister of Environment and Climate Change)
Jean-Francois Tremblay (JF.Tremblay@ec.gc.ca) (Deputy Minister)
Lawrence Hanson (Lawrence.Hanson@ec.gc.ca) (Associate Deputy Minister)

Impact Assessment Agency Canada
Natalie Boyd (greatbear@iaac-aeic.gc.ca) (IAAC, Project Manager)
Ian Lindsay (greatbear@iaac-aeic.gc.ca) (IAAC, a/Senior Consultation Analyst)

MINESITE DRAINAGE ASSESSMENT GROUP
(A Division of Morwijk Enterprises Ltd.)

contact@mdag.com
www.MDAG.com
CANADA

BY EMAIL

April 24, 2024
FILE: 5025.01

Grassy Narrows First Nation
c/o Cavalluzzo
474 Bathurst Street, Suite 300,
Toronto, Ontario M5T 2S6
Attn: Grassy Narrows Lands Protection Team

Dear Grassy Narrows Lands Protection Team,

RE: Great Bear Mining Project - Response to Kinross Gold on MDAG Initial Comments of March 27 2024

I have submitted to you two letters in the past about environmental concerns at the Great Bear Project, dated March 27 and April 11. These letters were based on some of my initial findings from some documents that were within my focus on metal leaching and acid rock drainage (ML-ARD), water quality, and hydrogeology. My review is now complete, including more detailed explanations for those earlier, initial comments as well as additional comments and concerns. My full review accompanies this letter of April 23.

Kinross Gold's consultant, WSP, replied to my first letter of March 27 on April 4. WSP sent a table with 18 issues, listed as "MSDAG [sic] Letter - Comments and Rationale" with a corresponding "GBR Response".

Please note that I did not include full "Rationales" with my initial letters because my detailed review was still in progress. Thus, it was not possible for WSP to provide satisfactory responses. My detailed "Rationales" were provided to you only today.

In any case, I explained that there was little reliable and professionally certified information on ML-ARD, water quality, and hydrogeology at this point for the Great Bear Project. Most Great Bear reports included labels like "preliminary", "draft", and "initial", which meant they were not complete, not certified as reliable, and subject to change one or more times in the future. In fact, some information and designs already changed substantially in 2023, as the accompanying review confirms.

Many of WSP's Responses reflected this. For example, the first WSP Response starts with:

> "The geochemical information presented in these reports represent initial draft documents for the Project, based on data collected in 2022 and early 2023 which was developed [sic] qualified professionals."

As I explained previously, my opinion is that preliminary, draft, and initial reports for the Great Bear Project that are not signed and certified by qualified professionals should not be reviewed. They are subject to change, and already some reports issued in 2023 contradicted others. I expect this to continue for at least a few years until final, reliable monitoring data and testwork are completed.

As a result, it is not worthwhile or meaningful to reply to WSP's Responses to my first letter. There are insufficient information and data at this time to debate and clarify many of my concerns and issues. There may or may not be sufficient information and data in future years. Only time will tell.

Therefore, based on the information available at this time for the Great Bear Project, I remain concerned about the many potential environmental impacts that are not recognized and not anticipated by Kinross Gold and about the many impacts that are recognized but poorly addressed and characterized. My concerns pertain to both the proposed advanced exploration and the proposed mining.

Sincerely,

Kevin A. Morin, Ph.D., P.Geo., L.Hydrogeo.
President

Great Bear Mining Project -

Review of ML-ARD and Water Quality Expected during and after Advanced Exploration and Proposed Mining

prepared for:

Grassy Narrows Lands Protection Team
c/o Cavalluzzo LLP
474 Bathurst Street, Suite 300,
Toronto, Ontario M5T 2S6

prepared by:

Kevin A. Morin, Ph.D., P.Geo., L.Hydrogeo.
Minesite Drainage Assessment Group
www.MDAG.com
contact@MDAG.com

April 23, 2024

TABLE OF CONTENTS

Report Summary ii

1. Introduction 1

2. Project Definition Document (December 2022) 4

3. Geochemical Characterization Workplan (January 9, 2023) 10

4. Great Bear Advanced Exploration Program Reclamation Strategy (September 2023) 14

5. Program Closure Plan, Draft for Indigenous Review (November 2023) 19

6. Hydrogeological Workplan (December 21, 2022) 23

7. Surface Water Quality Workplan (December 21, 2022) 24

8. Fugitive Dust Best Management Practices Plan, final draft (September 2023) 25

9. PTTW Application for Dewatering, final draft (October 2023) 26
- 9.1 Main Report 26
- 9.2 Appendix B 28
- 9.3 Appendix C and Its Several Draft Monitoring Programs 31
- 9.4 Appendix D 31
- 9.5 Summary 31

10. Draft (?) Detailed Project Description (November 2023) 33
- 10.1 Section C.3.3 Proposed Mine Facilities and Infrastructure 33
- 10.2 Section C.3.4 Preliminary List of Mine Activities 37
- 10.3 Section C.3.5 Preliminary Decommission Approach 37
- 10.4 Section F Potential Effects of The Project 39
- 10.5 Summary 41

11. Water Treatment during Proposed Exploration and Proposed Mining 44

12. References 48

Report Summary

This MDAG review has focussed on the potential for contamination of water by metal leaching and acid rock drainage (ML-ARD) on, under, and around the Great Bear Project during proposed exploration and proposed mining.

It is important to note that some report titles for Great Bear contain the words "draft", "preliminary" or "initial", meaning newer drafts and revised final versions from Kinross Gold may or may not change from what has been reviewed here. Also, the first cover page for the Detailed Project Description of November 2023 says "draft" while the second WSP cover page does not. Thus, I have found that the reviewed documents for the Great Bear Project as a whole is a confusing mess of shifting, changing, contradicted, and assumed details, with none signed and certified by qualified professionals.

Also, the contents of some documents are password protected. This protected text and information cannot be extracted for detailed evaluation, quotation, review, and comment now or in the future. Thus, they preclude detailed reviews by Grassy Narrows First Nation, which is what Kinross Gold seeks.

Each section of this MDAG review looked in detail at a particular report on proposed exploration and/or proposed mining. The following paragraphs are the summaries taken from each section, and each section should be consulted for details and context.

Section 2 of this MDAG Review

For the password-protected Project Definition Document of December 2022, sufficient details and omissions are present for me to be very concerned about ML-ARD and water-quality degradation during and after the relatively large, at-least-four-years-long proposed Advanced Exploration that would essentially be a first phase of mining at Great Bear. These concerns carry over to the proposed mining.

Although this document is not marked as "draft" and is thus final, it contains many details contradicted by later documents as explained in later sections of this MDAG review. Thus, it is not possible to know exactly what is proposed for Advanced Exploration and, in turn, to know reliably how bad the environmental problems and impacts could be.

Section 3 of this MDAG Review

Problems detected in the January 2023 Geochemical Characterization Workplan include:

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross wants to proceed with

Advanced Exploration.

- All that is available now is 96 rock core analyses according to the September 2023 Reclamation Summary (see below), which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". In any case, the 96 samples were not collected and analyzed as required under the Ontario Mining Act (see next bullet). Thus, Kinross Gold and its consultants, WSP, are guessing how bad the contamination will be, but admit that some of it will be bad, and are likely years away from completing the ML-ARD work required under Regulation 240/00 of the Ontario Mining Act (Mine Development and Closure under Part VII Of the Act).

- The stated approach and methodology used for Advanced Exploration is "based on the requirements" of two British Columbia documents from 1997-1998 (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997). In reality, the Ontario Mining Act says the approach and methodology must be based on the much more detailed 2009 federal Prediction Manual, not just as "guidance" as Great Bear has done. Thus, the work for Advanced Exploration to date does not meet the Ontario Mining Act through Regulation 240/00 and does not meet the 2009 federal ML-ARD Prediction Manual (Price, 2009).

- Even if this Geochemical Characterization Workplan was applicable and consistent with the 2009 federal ML-ARD Prediction Manual, such work requires at least 2-3 years to obtain all required information and interpretations. Therefore, perhaps in 2025 or some year after, there might be sufficient ML-ARD for Advanced Exploration, but not any time soon.

Section 4 of this MDAG Review

Concerns on the Reclamation Strategy from September 2023 include the following.

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross Gold wants to proceed with Advanced Exploration.

- All that is available now is 96 core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". Also, 30 samples of overburden, which is intended to be left on surface and used for reclamation, were collected yet the results are not reported although there is ~50% probability that the overburden will release ML-ARD and thus be toxic. Kinross Gold and WSP are guessing how bad the contamination will be, but admit that some of it will be bad. They are likely years away from completing the ML-ARD work required under the Ontario Mining Act and Regulation 240/00, because the work for Great Bear was not initially consistent with Regulation 240/00. In part, this is because the 2009 federal ML-ARD Prediction Manual (Price, 2009) was not recognized or followed as required. Even the

definitions of ML-ARD acronyms used for the Great Bear Project are not correct according to the federal Manual, which is additional evidence the Prediction Manual is not being followed.

- The bad ML-ARD rock appears to be associated with "rapid acid generation" according to the Program Closure Plan (reviewed in the next section below). This is an incorrect explanation of the phenomenon, but still shows that the bad water quality will start coming out of the disturbed rock, including the underground mine walls, very quickly after initial disturbance. Informally, this is called "lag time" to ML-ARD, but most of the ML-ARD work has not yet been done to quantitatively estimate the lag time beyond "rapid". This contaminating rock will be stored on surface and possibly only later, likely after the lag time, some might be taken underground. When this rock contacts water underground as the workings partially flood and submerge, it will quickly release more contamination. This means the underground water flowing into the surrounding groundwater system, and the surface overflow if any, would have to be monitored and likely be treated for many years or in perpetuity after Advanced Exploration.

Section 5 of this MDAG Review

For the password-protected Program Closure Plan, Draft for Indigenous Review from November 2023, the following concerns were noted.

- In November 2023, the volume of overburden has approximately doubled from previous documents without an explanation. Because overburden generally has a 50% probability of releasing ML-ARD and contaminating water, overburden represents a major but unexamined threat to water quality on, around, and beneath the Great Bear exploration site.

- "Preliminary" criteria are provided for separating "PAG" and "NPAG" rock and for "NML" rock. However, these acronyms are not used in an accurate manner that is consistent with the 2009 federal Prediction Manual (Price, 2009) required by Regulation 240/00. The preliminary criteria are not rational based on ML-ARD science unless justified with detailed and intensive site-specific studies, which have not yet been completed and professionally certified for the Great Bear Project.

- The potential for ML-ARD after closure is presented all the way to detailed predictions of aqueous concentrations in mg/L for on-site water and effluent to the environment, but only after closure and not during operations when the water quality would be reasonably worse. However, these predictions are not explained in any detail, are not justified, appear anomalous, and are not certified by a qualified professional. Some predictions are actually pre-exploration baseline that are erroneously assumed to be re-established immediately at closure. Furthermore, these predictions are missing more than a dozen potential contaminants.

- The "PAG" rock, which would likely create the highest contaminant concentrations, is not included

in this Program Closure Plan, presumably because this "PAG" rock will be backfilled underground. However, when placed underground, this "PAG" rock will likely continue to release severe ML-ARD until submerged, at which point a relatively huge amount of accumulated contamination would be released into the underground water. After the mine is refilled to equilibrium, and the minewater begins flowing into the surrounding groundwater system and through the more than 500 km of permeable drillholes to the environment, it will contaminate large surrounding areas. This major risk to water quality and the environment is not even mentioned in this Closure Plan, which is a major omission.

- The backfilling of "PAG" rock at closure is the largest individual cost item for closure totalling around $10 million. However, this reflects the currently minimum volume based on preliminary, unreliable information. In the worst case, which was assumed in the Great Bear Project Definition and still not disproven here, total closure costs could exceed $20 million.

Section 6 of this MDAG Review

In the Hydrogeological Workplan from December 2022, there is a major omission that would preclude a reliable and comprehensive assessment of current baseline hydrogeologic conditions and of future impacts from proposed mining. The groundwater monitoring network does not extend far enough to the west and northwest, beyond the proposed western portion of the Tailings Management Facility.

Section 7 of this MDAG Review

In the Surface Water Quality Workplan from December 2022, there are insufficient information and details to determine if appropriate work is planned and conducted. This is because important details are listed only as "including". For example, major potential contaminants like manganese and thallium are not specifically listed, but perhaps they are implicitly included? There is no way to know.

Section 8 of this MDAG Review

Based on the final-draft Fugitive Dust Best Management Practices Plan of September 2023 for Advanced Exploration, this work is unacceptable because it grossly underestimates the potential impacts from ML-ARD geochemical contamination of soil, vegetation, water, and biota by dust. This work assumes the on-site sources of dust "would be similar in concentration to the background rock". This is wrong and ignores the ongoing ML-ARD assessment of ore, rock, and overburden.

Section 9 of this MDAG Review

In the PTTW (Permit To Take Water) Application for Dewatering, Final Draft, and its several

important appendices from October 2023, there are alarming errors and ambiguities that should preclude approval of PTTW. These should also trigger a detailed impact assessment, which this PTTW report conversely says is not needed for Advanced Exploration at Great Bear.

In the introduction to the main PTTW report, the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning because the actual total water withdrawal from the local groundwater/surface-water balance would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these flows are unrealistically low as explained here.

The errors begin with groundwater modelling that is based on long-term "steady state conditions" after the mine is "fully developed" and dewatered, and not on the correct, higher-inflow "transient conditions". Thus, inflow, pumping, and dewatering are significantly underestimated by the groundwater model and the PTTW Application. Additionally, there are problems with unrealistically low estimated effects on partial dewatering of Dixie Creek and other creeks and rivers. For example, simulated groundwater levels are around 9 m higher than measured around the mine and Dixie Creek, which artificially and incorrectly prevent additional dewatering of Dixie Creek.

Groundwater levels are shown to be drawn down during dewatering to a maximum of only 36 m even though the dewatered workings will be 600 m deep. This reflects (1) nearly fully dewatering of the shallow overburden and (2) the lack of admission on the likely huge drawdown and much larger "Zone of Influence" in the rock beneath the overburden.

Baseflows into Dixie Creek and other waterbodies can be critical to aquatic, benthic, and terrestrial ecosystems because of groundwater's typically different water quality and temperature compared to water already flowing at the surface. This becomes more critical during droughts when baseflow may be the main source of surface flows. The PTTW Application ignores the fact that more than 34 to 55% of existing baseflow would be lost during Advanced Exploration. It instead points out that the loss to groundwater would be only 2.4% and less of total flow depending on the chosen surface-flow statistic.

Overburden is routinely ignored in this PTTW document and its appendices, despite the proposed hundreds of thousands of tonnes of overburden likely having at least some ML-ARD potential and capacity to degrade water quality. In fact, some underground dewatering would be sprayed on the overburden for dust suppression, which in turn could lead to contaminated runoff across and off the site.

Section 10 of this MDAG Review

In the perhaps-draft Detailed Project Description of November 2023, the first cover page by Kinross says this document is "draft", but the second cover page by the authors, WSP, does not say "draft" so perhaps this is or is not the final document. If so, it has not been signed by qualified professionals and thus should be rejected.

In any case, there are so many problems, misleading statements, errors and omission concerning ML-ARD, water quality, and environmental impacts that they cannot all be summarized well here. These problems include the following.

- There is a false statement that there will be no sources of mercury from the ore processing when in fact the tailings and concentrate from the process will contain mercury. The processing could even cause mercury and other elements to leach more quickly and become more mobile.

- Contrary to the impression given by this Detailed Project Description, cyanide destruction is not perfect and can simply mask the cyanide temporarily in the environment, but the important testwork to determine this has not yet been done for the Great Bear Project.

- Significant impacts on water quality can arise from seemingly benign proposed activities like paste backfill of tailings into the underground mine and dewatered filter-cake tailings. However, the potentials for serious impacts are not recognized or not even mentioned in this perhaps-draft Great Bear document that can supposedly be used to determine what impacts could occur.

- Storm events and equipment upsets can lead to relatively large variations and unexpected impacts, day-to-day or even hour-to-hour, during proposed exploration and proposed mining. Instead, these Great Bear documents use averages like monthly which incorrectly assume flows will be the same every day of a month which is far from reality. Environmental impacts and spills can also be caused by large variations, as well as longer-term averages, so the environmental risks of proposed exploration and proposed mining at Great Bear remain mostly unknown and not identified.

- Nonsense pseudo-scientific statements are used, like the aggregate required to build the project would be “nonreactive mine rock and overburden” which does not exist. This clearly shows that experienced and qualified professionals were not included in the writing of this perhaps-draft Detailed Project Description. If there is a true commitment to “nonreactive mine rock and overburden” which does not exist, then the Great Bear Project stops now.

- There is a lack of ML-ARD assessments for some site components like aggregate.

- There is a prevalent but likely false belief that “NPAG”rock will have little to no impacts on ML-ARD, water quality, and the environment. However, this has not been proven for the Great Bear Project and is likely wrong based on other minesites around Canada. “NPAG” rock can actually generate more acid than “PAG” rock and could still release seriously contaminated levels of many metals and other elements at near-neutral pH.

- The financial assurance to ensure proper and fully paid closure of the proposed Great Bear Project is grossly underestimated based on existing information. Furthermore, the financial assurance should also include contingencies for costs of early or premature closure, but it does not.

- There are likely devastating, expensive, and unrecognized ML-ARD consequences on water quality from the proposed relocation of "PAG" rock into the underground workings after operation.

- The ongoing, unproven, and likely wrong, belief continues that overburden would be environmentally benign, can be used across the site for reclamation, and can be sprayed with water to control dusting when it could instead create contaminating water around, below, and beyond the Great Bear site.

- There are unfounded beliefs that dewatering during exploration and mining would have minimal effects on the local and regional water balance, and would not significantly dewater surface creeks and lakes including their environmentally important baseflow. These false beliefs are based on flawed groundwater modelling for the Great Bear Project explained earlier in this MDAG review.

- There is a false belief that dust blown off the site during proposed exploration and proposed mining and into the surrounding environment, vegetation, soil, water, and aquatic ecosystems is benign at "background" levels.

- A false belief is stated that only elevated and toxic ammonia, and no other contaminating nitrogen species from explosives that consistently accompany the ammonia, will appear in mine water during proposed exploration and proposed mining.

- There is an unsupported and likely substantially underestimated statement that the mine walls in the pits and underground workings "may potentially contribute minor quantities of metals to the mine water" instead of the more typical significant quantities of metals seen at many other minesites around Canada. This is taken as far as the likely ludicrous statement that there would be "Potential for creation of fish habitat in new pit lakes, expected to be re-connected [sic] to the Dixie Creek system".

- There is no recognition of the implications, costs, and impacts of storing months of contaminated mine water on the site should one or more "unexpected" yet currently predictable inorganic contaminants and ML-ARD occur on the site water during and after proposed exploration or proposed mining.

Section 11 of this MDAG Review

In summary for water treatment, Great Bear documents invoke water treatment as the major process that would prevent or minimize environmental impacts of proposed exploration and proposed mining. This is not literally true, because there will be fugitive contaminated water and contaminated dust leaving the site, but this fugitive contamination is ignored or not recognized in many reviewed Great Bear documents.

In any case, water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts, and thus requires intensive study and characterization.

However, at this time, water treatment for proposed exploration and proposed mining is ambiguous and contradictory among the documents. This should be expected because the input flows and input contaminant concentrations (ML-ARD) will not be known reliably for at least a few years. Nevertheless, there are serious concerns about water treatment now including the following.

- Kinross Gold does not expect to treat site water to non-toxic levels. Instead, treatment would only be down to still-toxic levels based on the Metal and Diamond Mine Effluent Regulations (MDMER). Thus, Kinross Gold intends to rely on significant dilution of its contaminated effluent within a "mixing zone" in the Chukuni River. Such a mixing zone would include zones of significant toxicity and would require formal authorization from Fisheries and Oceans Canada. In any case, this discharge of effluent would add to cumulative effects, which is a particular concern of Grassy Narrows First Nation.

- Expensive and intensive treatment for ammonia, derived from blasting residues, is proposed. However, toxic levels of nitrate and nitrite, that always accompany the ammonia and which can cause eutrophication and other impacts in the Chukuni River and Dixie Creek, are completely ignored.

- Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

- Ultrafiltration may substantially reduce effluent concentrations of elements not fully dissolved, mixing-zone size, and cumulative effects. However, there are no details on this ultrafiltration in the reviewed Great Bear documents.

- Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called "sludge", which can reach "hazardous" and "special" waste levels in some jurisdictions. Thus, treatment sludge requires the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and sediments including soils and benthic ecosystems. All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge that will remain and be managed somewhere in perpetuity.

1. Introduction

Metal leaching (ML) and acid rock drainage (ARD) are often water-chemistry and water-quality issues for minesites (e.g., Morin and Hutt, 1997 and 2001). As a result, the accurate prediction and control of ML-ARD at mining projects and proposed minesites in Ontario are high priorities of the provincial and federal governments.

This is explained in Part 7 (*Metal Leaching and Acid Rock Drainage Requirements*) of Ontario Regulation 240/00 (*Advanced Exploration, Mine Development and Closure under Part VII of the Act*), and in the federal ML-ARD Prediction Manual (Price, 2009). Section 57(1) of Regulation 240/00 states,

> "A program shall be undertaken to sample all materials remaining on the site that have been excavated, exposed or otherwise disturbed by mining activities, including but not limited to,
>
> (a) drill core;
> (b) metallurgical samples;
> (c) pit walls;
> (d) existing waste rock, ore, concentrate and *overburden* [MDAG emphasis] piles;
> (e) construction rock; and
> (f) tailings."

For detailed guidance, Ontario Regulation 240/00 states,

> "The sampling program shall be conducted by a person who is qualified in Ontario as a professional geoscientist, professional agrologist or professional engineer in accordance with a report prepared by William A. Price on behalf of the Mine Environment Neutral Drainage (MEND) program, entitled 'Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials', MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..." [Price, 2009]

ARD is caused by oxidation of sulphide minerals, which are found at the Great Bear Project, particularly iron-bearing sulphides like pyrite and pyrrhotite. Whether sulphide minerals are present or not, weathering can still lead to accelerated metal leaching (ML). For example, the simple dissolution of near-neutral or alkaline carbonate minerals can release metals like manganese and zinc into the water. Thus, ARD is a subset of the more generic ML.

In practice, ML is not limited to true metals in the Periodic Table, but to all elements that could become potential environmental contaminants. For example, sulphate and nitrate are regularly included in ML assessments. Sulphate can reportedly increase the methylation of mercury and other elements like cadmium and arsenic.

Therefore, ML-ARD is an acronym representing the full spectrum of inorganic water chemistry and quality on, beneath, and around a minesite. Put simply, ML-ARD potential is synonymous with the potential for inorganic water contamination and the degradation of on-site water quality.

Kinross Gold Corporation (Kinross Gold) proposes Advanced Exploration and later mining at its Great Bear Gold Mining Project in the Red Lake mining district of Ontario, approximately 25 km southeast of the Town of Red Lake. The Great Bear Project is located in the Interim Area of Interest for Mining of Asubpeeschoseewagong Netum Anishinabek (ANA), which Kinross documents also name as Grassy Narrows First Nation (GNFN). The Great Bear Project is also in an area where Grassy Narrows First Nation people use the land and water to practice their Indigenous way of life. It is located upstream of the English River which flows directly to the Grassy Narrows village site and Grassy Narrows' most important fishing grounds.

Through Cavalluzzo LLP, the Grassy Narrows Lands Protection Team has asked me, Dr. Kevin Morin of the Minesite Drainage Assessment Group (MDAG), to review and comment on the proposed exploration and proposed mining. This MDAG review focuses on predicted surficial and subsurface ML-ARD and water quality on and around the Great Bear Project.

My qualifications for making the comments in this review document include the following. I have been assessing water contamination at minesites by metal leaching and acid rock drainage (ML-ARD) for 46 years. I have done this at several hundreds of exploration, operating, and closed mining-related sites on all continents except Antarctica, from north of the Arctic Circle to south of the Tropic of Capricorn, in biogeoclimatic zones ranging from virtually no annual precipitation up to a rare daily rainfall of one meter. I earned my Doctor of Philosophy degree in contaminant hydrogeology from the University of Waterloo, where my supervisor was the renowned Dr. John Cherry along with a thesis committee including Drs. Emil Frind (a well-known groundwater modeller) and Eric Reardon (a well-known geochemist). To date, I have authored or co-authored 99 published papers and presentations, five books, and 80 online case studies. I have been and am a peer reviewer for a number of international journals related to ML-ARD and environmental contamination. More details can be found at www.MDAG.com.

The Kinross documents reviewed in the following sections are listed below. Again, the main focus is on the potential for contamination of water by ML-ARD on, under, and around the Great Bear Project during proposed exploration and proposed mining.

- Project Definition Document (December 2022)
- Updated Site Plan
- PTTW Application for Dewatering, final draft (October 2023)
- Fugitive Dust Best Management Practices Plan, final draft (September 2023)
- Reclamation Strategy (September 5, 2023)
- Program Closure Plan, Draft For Indigenous Review (November 2023)
- Surface Water Quality Workplan (December 21, 2022)
- Hydrogeological Workplan (December 21, 2022)
- Geochemical Characterization Workplan (January 9, 2023)
- Preliminary Impact Assessment Methodology, draft (May 31, 2023)
- Preliminary Listing of Potential Valued Components for the Great Bear Project (May 31, 2023)
- Initial Project Description (June 1, 2023)
- Detailed Project Description (November 2023)

- PowerPoint Presentation by Kinross to ANA (November 10, 2023)
- ANA IPCA Map

It is important to note that some report titles above contain the words “draft”, “preliminary” or “initial”, meaning newer drafts and revised final versions from Kinross Gold may or may not change from what has been reviewed here.

Also, the contents of some documents above are password protected. This protected text and information cannot be extracted for detailed evaluation, quotation, review, and comment now or in the future. This precludes the detailed review by Grassy Narrows First Nation that Kinross Gold seeks. I strongly recommend that unlocked versions of all Kinross documents be obtained and kept by Cavalluzzo LLP and the Grassy Narrows First Nation for future reference and usage.

2. Project Definition Document (December 2022)

The Great Bear Resources Great Bear Advanced Exploration Project Project Definition Document, dated December 2022 by WSP E&I Canada Limited (WSP), is a password-protected document from which its content cannot be extracted or copied for detailed evaluation and reinterpretation.

In the Preface of this document, WSP states,

> "The Project as described in this document is subject to change as engineering progresses, in response to feedback from government agencies, Indigenous communities and stakeholders, as well as constraints not currently known, that are identified by ongoing environmental baseline and engineering works, and Indigenous consultation and engagement."

No new or updated Project Definition could be located and thus this version from December 2022 is reviewed here from the perspective of ML-ARD and potential water contamination.

Section 1.3 explains the objective of the proposed Advanced Exploration and its key activities:

> "The objective of this Project is to obtain additional information on the known mineralized zones (LP Fault, Limb Zone and Hinge Zone; Figure 1-3) through underground drilling, and to extract a bulk ore sample of up to 60,000 tonne (t) by underground mining methods. Extraction of a bulk sample allows the testing of representative areas of the mineralization off site, in order to gain a better understanding of the geology of the mineralized zones including, grade, structural controls on the mineralization, continuity, mining dilution, optical sorter performance and metallurgical recoveries. This information will support the assessment and development of a viable commercial production scenario.
>
> "The Project will also support future engineering designs by improving knowledge of key factors (ground conditions, water inflows, costs, labor, etc.). It will also improve the knowledge base to increase the confidence in environmental predictions associated with the proposed underground mine and to a lesser extent open pit mine.
>
> "Key Project activities are provided below:
> - Establish portal(s) and decline(s) to provide access underground in order to establish required underground workings
> - Develop drill platforms off the decline to facilitate efficient underground drilling of the known mineralized zones at depth
> - Extract up to 60,000 t of ore (bulk) sample from test stopes and drifts in the mineralized zones
> - Transport the ore to surface along the decline(s) by truck for crushing, sorting and sampling; samples will transported off site by highway truck for test processing
> - Mine rock that must be removed from the underground workings in order to provide access to the ore will be brought to surface by truck and will be stored in stockpile(s) unless appropriate for use as a construction material on site
> - Additional activities on surface and underground, such as environmental management."

These quotations raise several concerns as explained next.

Section 1.4 "Consultation to Date" with First Nations mentions Wabauskang First Nation (WFN) and Lac Seul First Nation (LSFN) in several places including an Exploration Accommodation Agreement. In contrast, Grassy Narrows First Nation (GNFN) in mentioned only twice, including where the Ontario Ministry of Mines instructed Kinross Gold to include GNFN in notifications of significant updates on exploration works. Later, Section 7.4.1 adds,

> "On September 29, 2022, the Company communicated its interest in an introductory meeting to GNFN, who respectfully declined the offer."

Section 1.5 on "Involvement of Federal Agencies" in this Project Definition starts by saying "Not currently applicable". Then it clarifies:

> "No Federal government departments or agencies are expected to grant Federal land or providing financial support to the project (include indirect funding support, such as for infrastructure and training). There is the potential that Federal departments may be required to provide environmental approvals or authorizations (see Section 7.3.1)."

Federal agencies like Fisheries and Oceans Canada will very likely be involved in authorizations as the Great Bear Project intends to discharge toxic water including from its advanced-exploration treatment plant into fish-bearing waters and fish habitat as "mixing zones" requiring authorizations. This is discussed further in Section 11 of this MDAG review.

Section 5.1.1 on Existing / Previous Development, Operations and Facilities says:

> "The first exploration work documented by Geology Ontario on the Property dates from 1944. Prior to acquisition by Great Bear Resources Ltd. in 2017, 176 diamond drillholes had been completed totalling 32,602.8 metres (m).... As of October 2022, there has been over 500,000 m of diamond drilling on the Property."

For understanding how groundwater might move during and after proposed Advanced Exploration, these hundreds of drillholes more than 500 km in total length create very permeable pathways for subsurface water to travel long distances quickly, in violation of normal hydrogeologic principles like hydraulic gradients and hydraulic conductivities. This is not acknowledged in other Great Bear documents, as explained in sections of this MDAG review such as Sections 6 and 9.2.

Section 5.1.3 on Geology and Mineralogy says:

> "The Property lies locally within a regional northwest-southeast trending belt of metavolcanic and metasedimentary rocks, bound by intrusive batholiths (see Figure 5-1). The Project is targeting gold mineralization, currently identified within three mineralized zones (see Figure 1-3):
>
> - LP Fault Zone, disseminated gold within high strain
> - Limb Zone (previously known as the Dixie Limb), silica-sulphide replacement
> - Hinge Zone, quartz veining."

The 2009 federal ML-ARD Prediction Manual (Price, 2009) shows that the ML-ARD and potential contamination from each of these zones requires separate ML-ARD evaluations. However, the proposed underground drifts are from a limited area of the ore zones, contrary to a statement that Advanced Exploration is needed to check "the continuity of underground access gold deposits" (see below).

Section 5.1.4 on Geochemical and Geotechnical Considerations states:

> "Geochemical characterization work has been initiated in order to support potential future development, including meeting the requirements of the Mine Rehabilitation Code for a future Advanced Exploration Closure Plan. Ongoing work include static testing (acid base accounting, short-term leaching), mineralogy and metal content. Humidity cells and rain barrel tests are also proposed. The conservative [worst-case] assumption pending results of the comprehensive testing program, is that ore and mine rock is potentially acid generating. This assumption will be amended on receipt of the pending test results and further assessment."

This worst-case assumption (incorrectly stated as "potentially acid generating" in comparison to the federal ML-ARD Prediction Manual) that all ore and mine rock will release ML-ARD could still be the case now, despite recent statements to the contrary (see the sections below in this review). This is because important ML-ARD work has not been completed and then certified by a qualified professional.

Section 5.1.4 also describes the overburden at the Project, which requires ML-ARD assessment equal to those of waste rock and ore according to the federal ML-ARD Prediction Manual and Ontario Regulation 240/00.

> "At the northwest portion of the Property, surficial soils are glaciofluvial in origin, consisting of sands and gravels. In the central portion of the Property, the surficial soils are described as deep-water deposits comprised of laminated to varved clay, silt and fine sand (Natural Resources Canada, 1996). Based on current exploration drilling information, overburden thickness at the Property is expected to range between 0 to 40 m. There are limited bedrock exposures within the Project area. Overburden encountered to date is a mix of sand, gravel and clay; however zones of soft sensitive clays may be encountered. An extensive geotechnical drilling program is currently underway on the Property to further investigate these and other aspects."

Section 5.1.5 on Proposed Mining Activities contains many important details such as:

> "There is no production mining proposed for the site." [MDAG Note: This appears to be a play on words because significant mining for several years is in fact proposed and Section 5.1.5 is specifically entitled "Proposed Mining Activities"; see my comments below on Section 5.1.8]. This Project includes use of underground mining methods to obtain a bulk sample of up to 60,000 t. The work is to be initiated in 2023, pending consultation, regulatory approvals and a corporate decision to proceed."

Kinross Gold further explained details of the proposed Advanced Exploration in Section 5.1.5:

> "The goal of the advanced exploration program (and ongoing exploration drilling from surface), is to collect additional information to support a decision on whether to proceed to develop a mine and to support engineering design. The advanced exploration bulk ore sample will be trucked off site over the existing Provincial road network to an existing mineral testing facility. No onsite processing is proposed.
>
> "GBR proposes to collar one or two portals from surface (approximately 6 m by 6 m) and to develop associated decline ramp(s) of approximately the same dimension. Secondary

egress and ventilation may be provided through a raise. The ramp is projected to extend to a vertical depth of approximately 600 m below surface and length of approximately 9,000 m during the Project. A preliminary long-section and plan view of the advanced exploration underground workings showing the preferred portal and raise location is provided in Figure 5-2 and Figure 5-3. The ramp is designed to provide access to the investigation areas, promote efficient truck haulage and reduce ventilation losses. Personnel will access the underground workings by means of the ramp. A shaft is not proposed for the Project.

"A bulk sample will be extracted from underground workings developed from the ramp(s) using conventional drilling and blasting using explosives, from several locations within the deposit. Blasting is proposed to use prepackaged and bulk explosive products....

"The objective of this Project is to obtain additional information on the known mineralized zones (LP Fault, Limb Zone and Hinge Zone; see Figure 1-3) through underground drilling and extraction of a bulk ore sample. Extraction of bulk sample allows testing of representative areas of the mineralization in order to gain a better understanding of the geology of the mineralized zones including, grade, structural controls on the mineralization, continuity, mining dilution, optical sorter performance, crushing and grinding properties and metallurgical recoveries to support development of a viable commercial production scenario.

"Industry-specific factors that were considered by GBR when establishing the size of the bulk sample include as follows:

- The proposed bulk sample is approximately 1% of the currently defined mineralized envelope and is consistent with other Ontario advanced exploration projects, such as the Timmins West Project (100,000 t), Sugar Zone Project (70,000 t) and Upper Beaver Project (60,000 t)
- Representative bulk samples extracted using realistic mining methods that help to prove the continuity of underground access gold deposits are very important to potential financiers
- National Instrument 43-101 resource definition and economic modeling standards are becoming more stringent to satisfy stricter due diligence standards imposed by industry and the investment community, often requiring bulk samples to validate and refine resource models prior to production decisions."

The problem with these details is that the three reasons given by Kinross Gold do not justify the 60,000 t bulk sample nor the proposed locations for the removal of the bulk sample. For example, the figure shows that most of the bulk sample will be taken from two laterally-limited areas. As a result, most of the ore from northwest to southeast will not be sampled. This is not consistent with proving "the continuity of underground access gold deposits".

Section 5.1.8 on Project Duration and Rate of Mining shows that Underground Development will take place across more than four years "on a continuous (24-hour) basis" and the Bulk Sample will be collected across roughly 2.5 years. These details plus the two 6x6 m portals show this is not typical Advanced Exploration to determine if future mining might be justified, but this is the first phase of mining.

Section 5.3.8 Buildings and Large Facilities includes Table 5.2 "Primary Buildings and Facilities on Surface". "Mine Rock Stockpiles (2)" has an approximate scale of 1,000,000 t, although it is not clear on whether this is maximum capacity or expected capacity. This is only clarified later under Section 5.4.3 (see below) which is the only description of the volume of disturbed waste rock (1,000,000 t) left on site simply to obtain 60,000 t of ore (a ratio of 17:1). This implies a large percentage of waste rock will be mined during Advanced Exploration, which further supports the view that Advanced Exploration would be the first phase of mining.

Remarkably, the various ponds listed in Table 5.2 are only described as lateral areas and do not provide depths and volumes, precluding a discussion of mass balances and spills due to extreme weather events and failures of the treatment plant. Also, the total catchment of this proposed exploration site is not provided despite all its runoff and infiltration requiring routine monitoring and treatment as needed. These are serious omissions. These omissions continue in the perhaps-draft Detailed Project Description, reviewed in Section 10 below.

Despite 60,000 t of ore being mentioned many times in this Project Definition, Section 5.4.3 "Stockpiles" is the only section of this Project Definition that mentions the substantially greater amount of waste rock with ML-ARD potential:

> "It is estimated that a total quantity of approximately 1,000,000 t of mine rock will be generated and stockpiled during the Project."

Additionally:

> "A stockpile of up to 100,000 m^3 [of overburden] is proposed", which likely means about an additional 200,000 t of disturbed overburden.

Notably, less than a year later, documents (see the later sections of this MDAG review below) have increased the overburden to ~400,000 t with no clear explanation for it.

Overburden stockpiles at minesites around Canada have released significant ML-ARD, which is why they are specifically mentioned and referenced through the Ontario Mining Act, but this Project Definition fails to recognize this. Later Kinross Gold documents fail to show the overburden stockpile and fail to show its runoff reporting to ML-ARD treatment (e.g., the undated "AEX Site Plan - Updated.pdf" on which overburden is called "topsoil"). For example, "Memo - Reclamation Strategy - Sept 5 2023.pdf" says,

> "Runoff from the overburden stockpiles (will be monitored and treated to manage suspended solids as required and discharged)".

The undated "AEX Site Plan - Updated.pdf" does not show this. This is one of many glaring contradictions and errors among the Great Bear documents reviewed here.

The understanding of groundwater at this Project is incomplete or contradictory. Section 6.25. Says:

> "The bedrock is generally tight with some potential for limited groundwater flow in the upper fractured bedrock and a few deep structures."

However, a figure in Section 5.5.2 shows groundwater as the only source of inflowing water to the underground workings. Thus, Kinross is saying groundwater inflow is "limited" but also is the only source of this water that has to be actively pumped out of the mine. This escalates to serious errors in groundwater modelling explained in Section 9.2 below that incorrectly predicts relatively low groundwater inflow and relatively little dewatering of surface creeks and lakes.

Section 6.2.6 Air Emission Information has an important omission concerning ML-ARD, environmental impacts, and cumulative effects. This section simply says,

> "A meteorological station has been established on the site, and baseline air quality and sound data is being collected. Based on a review of current Project, air emissions are anticipated to be limited and no offsite impacts are predicted. A management plan will be established to mitigated dust from materials movement and traffic on gravel roads."

However, hundreds of thousands of tonnes of blasted waste rock plus disturbed overburden will remain on site in piles up to 30 m high, likely in perpetuity after Advanced Exploration. This contaminated, blasted, and disturbed materials can release ML-ARD contaminated dust that can be carried into the surrounding environment where it can affect and degrade water quality, soil quality, vegetation, microbes, fish, and animals. As explained in Section 8 of this MDAG review, this invalidates the fugitive dust study for the Great Bear Project.

In summary of this password-protected Project Definition Document of December 2022, sufficient details and omissions are present to be very concerned about ML-ARD and water-quality degradation during and after the relatively large, at-least-four-years-long proposed Advanced Exploration that would be essentially a first phase of mining at Great Bear. These concerns carry over to the proposed mining. Although this document is not marked as "draft" and is thus final, it contains many details contradicted by later documents as explained in later sections of this MDAG review. Thus, it is not possible to know exactly what is proposed for Advanced Exploration and thus to know reliably how bad the environmental problems and impacts could be.

3. Geochemical Characterization Workplan (January 9, 2023)

This very short, three-page summary of ML-ARD "geochemical characterization", apparently issued in January 2023 by WSP, does not provide much information to review and comment on since it is only a "Workplan". However, later documents show this Workplan was not followed.

Under "Purpose of the 2023 Program", it says:

> "Samples that have been or will be tested as part of the geochemistry program include drill core (representing mine rock), overburden, and synthetic tailings generated from metallurgical test programs conducted in the laboratory. Related water quality modelling will be undertaken in 2023, focusing on the proposed Advanced Exploration (AEX) phase. Additional water quality modelling, representing the overall Project, will be undertaken at a later date."

As explained below, this Workplan is not sufficiently thorough and complete under the 2009 federal ML-ARD Prediction Manual (Price, 2009) to justify water-quality modelling and its conclusions. In any case, it is now April 2024 and no verified modelling results from 2023 have been found.

Under "Mine Rock Static Testing", this Workplan states,

> "A mine rock characterization program was initiated in 2022. A total of approximately 300 samples of drill core were collected for this purpose as part of field work in 2022. Drill core samples were obtained from a variety of locations and depths around the deposit, including rock in the vicinity of the proposed open pit and underground developments, along with the proposed AEX volume. Samples of all major rock types were collected. The purpose of this work is to evaluate the ML/ARD potential of the rock and help determine how mine rock may need to be managed.... Testwork is underway and results will be available in the first quarter (Q1) of 2023."

However, nine months later in September 2023, the Reclamation Strategy (see the next section of this MDAG review) mentions only 96 samples that are only "proximal" and thus not necessarily representative of rock to be removed for Advanced Exploration or proposed mining. Perhaps the other 200 samples are not relevant for Advanced Exploration and proposed mining, but then because they are "proximal" it is possible that the 96 samples are not relevant either.

Under "Mine Rock Static Testing", it says

> "All samples will be tested for Acid Base Accounting (ABA) parameters (that includes paste pH, sulphur content and speciation, and Neutralization Potential content and form) and elemental content analysis (aqua regia digestion and ICP analysis). Some of the samples will be subjected to more detailed static tests including the Shake Flask Extraction (SFE) test, Net Acid Generation (NAG) test, and Rietveld X-Ray Diffraction. Testwork is underway and results will be available in the first quarter (Q1) of 2023."

This is insufficient detail to ensure the correct tests are being done. In fact, "aqua regia" is a partial digestion that detects only part of the heavy metals and other elements in a sample, and thus is not acceptable for most ML-ARD work including comparisons to total crustal abundances.

Also, the September 2023 Reclamation Strategy (see the next section) mentions the results of 96 core samples, without stating which methods were used and what the analytical results were. All this information "will be available in the first quarter (Q1) of 2023", but more than a year later the information is not available as qualified-professional-certified results and interpretations.

Under "Mine Rock Kinetic Testing Programs", it says:

> "Kinetic tests are used to assess how a material responds to oxidation / weathering processes over time, and are used to estimate the time until samples may start to produce acidity and the rates at which the samples release metals. Several mine rock kinetic testing programs will be conducted in 2023, including a program conducted in the laboratory (humidity cell tests) and a program conducted in the field (field leach barrel tests).
>
> • The humidity cell test program will be initiated in the laboratory in 2023. Ten tests are currently planned and the specific number of tests will be confirmed following receipt of the static testing results. Samples to be tested will include key mine rock materials with a risk for ML/ARD along with test samples that are representative of typical Project mine rock. Initial reporting on the humidity cell tests will be available in Q4 2023."
>
> • A field leach barrel program will be initiated in the spring of 2023. Ten tests are currently planned but the specific number of tests will be confirmed following receipt of the static testing results. The objective of this program is to evaluate rates of sulphide oxidation and metal release under field conditions. This information will be integrated with the results of ongoing laboratory humidity cell tests to evaluate lag times to acid onset and metal release from mine rock. The tests will be routinely monitored throughout the open water season in 2023. Initial reporting on the field leach barrel program will be available in Q4 2023."

It is now April 2024. Where are the progress reports "available in Q4 2023"? In any case, these tests take at least one year, and often longer, to complete according to the federal ML-ARD Prediction Manual (Price, 2009). Thus, reliable and professionally certified results will not likely be available until late 2024 or 2025 at the earliest.

Under "Overburden Characterization", it says:

> "A preliminary geochemical characterization program for overburden is underway. Thirty samples of the various types of overburden present around the property were collected as part of field work conducted in 2022. Samples were submitted to the laboratory for static testing (ABA and elemental content) and a subset of samples were selected for more detailed static tests. Results will be available in Q2 2023."

Strangely, in the September 2023 Reclamation Strategy (see next section), the preliminary results are mentioned for mine rock but not for overburden. This is important because this Project Definition estimates there will be about 200,000 tonnes of overburden disturbed (with recent documents less than a year later saying ~400,000 t). This is about three times more overburden than the ore being mined as a bulk sample. On average around Canada, about half of overburden at mineral deposits has significant ML-ARD potential, so there is a significant risk that Great Bear overburden will devastate water quality on, beneath, and around the site.

Under "Mine Water Quality Estimates", this Workplan states:

> "Mine water quality estimates for the AEX phase will be prepared in Q1 2023. Modelling will be conducted via mass balance approaches and will be supported by the AEX site water balance and available geochemistry data. The model results will be used to ensure that site water management needs are identified and addressed. Additional water quality modelling, representing the overall Project, will be undertaken at a later date as the project advances."

Mine-water mass balances are not often representative of leachates from sulphide-bearing rock and overburden as found at the Great Bear Project. There is no justification here for mass-balance modelling and its results could be irrelevant for Advanced Exploration as well as proposed mining. This approach should be examined in detail including the data on which it is based once qualified-professional-certified documents become available.

Under "Technical Data Collection Methodologies", it says:

> "The approach and methodology for the geochemistry programs were based on the requirements described under the Ontario Mining Act; namely guidance found within the documents DRAFT Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (Price 1997), and Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (MEM 1998). Additional guidance was provided by the reference document Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (MEND 2009), which represents best practice and industry standard approaches and methodologies for ML/ARD sampling and characterization in Canada."

In fact, this is wrong. The Ontario Mining Act states:

> "The sampling program shall be conducted by a person who is qualified in Ontario … in accordance with a report prepared by William A. Price on behalf of the [federal] Mine Environment Neutral Drainage (MEND) program, entitled "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..."

Therefore, for the Great Bear Project, "[t]he approach and methodology for the geochemistry programs were based on" 1997 and 1998 British Columbia documents with only "guidance" from the federal Prediction Manual. In reality, the approach and methodology are required under the Act to be based fully on the 2009 600-page federal Prediction Manual, which instead was only used for "additional guidance". The 1997 and 1998 BC documents (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997) provided relatively little detailed instructions compared with the federal Prediction Manual, so the Great Bear ML-ARD testwork started off as likely insufficient under the Prediction Manual and would have to be expanded.

Under "Field and Laboratory Work Timing", it says:

> "Some field and laboratory work associated with the geochemical characterization programs was conducted in 2022 as described in the previous sections. Additional lab work is planned for 2023 as outlined above. Field work will be conducted in 2023 to construct the Field Leach Barrel tests and monitor and collect leachate from the tests. Reporting for the various programs will be available through 2023 as described above."

I have not yet seen this reporting from 2023 and am not aware if it has in fact been reported and

certified in 2023.

In summary, problems encountered in this January 2023 Geochemical Characterization Workplan include:

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross wants to proceed with Advanced Exploration.

- All that is available now is 96 rock core analyses according to the September 2023 Reclamation Summary (see below), which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". In any case, the 96 samples were not collected and analyzed as required under the Ontario Mining Act (see next bullet). Thus, Kinross Gold and WSP are guessing on how bad the contamination will be, but admit that some of it will be bad, and are likely years away from completing the ML-ARD work required under the Ontario Mining Act and its Regulation 240/00 (Mine Development and Closure under Part VII Of the Act).

- The stated approach and methodology used for Advanced Exploration is "based on the requirements" of two British Columbia documents from 1997-1998 (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997). In reality, the Ontario Mining Act says the approach and methodology must be based on the 2009 federal Prediction Manual, not just as "guidance" as Great Bear has done. Thus, the work for Advanced Exploration to date does not meet the Ontario Mining Act through Regulation 240/00 and does not meet the 2009 federal ML-ARD Prediction Manual (Price, 2009).

- Even if this Geochemical Characterization Workplan was applicable and consistent with the 2009 federal ML-ARD Prediction Manual, such work requires at least 2 to 3 years to obtain all required information and interpretations. Thus, perhaps in 2025 or some year after there might be sufficient ML-ARD for Advanced Exploration, but not any time soon.

4. Great Bear Advanced Exploration Program Reclamation Strategy (September 2023)

The Introduction of this document explains:

> "This memorandum was prepared to summarize the reclamation strategy for the AEX [Advanced Exploration] Program. The regulatory Closure Plan which will be filed with the Ontario Ministry of Mines is currently being developed. The purpose of this memorandum is to seek input from Indigenous communities regarding the proposed closure strategy for the AEX Program."

Thus, this memo is only to "summarize" the reclamation strategy in order to "seek input from Indigenous communities". As shown below, this summary is insufficient for Grassy Narrows First Nation to provide input and this reclamation "summary" in fact already reveals errors and misconceptions.

Section 2 entitled Project Information lists "major components" for Advanced Exploration. For tonnages and sizes, only the ore is mentioned and it will be shipped offsite. So there is no overall summary of areas, volumes, and heights of waste and disturbed materials remaining on site and requiring careful reclamation. This is important, because there will be at least 17 tonnes of mine waste rock generated for each 1 tonne of ore (see Sections 2 and 10 of this MDAG review), which is a substantial ore:waste ratio and one that requires intensive efforts to protect the surrounding environment. There would also be ~7 tonnes of overburden mined for each 1 tonne of ore, which increased through 2023 from an initial ~3:1 ratio.

Therefore, this Reclamation Strategy does not sufficiently protect the environment due to the lack of sufficient data, which is replaced by information that at best "suggests". The decision to mine a huge bulk sample of ore worth tens of millions of dollars, likely to offset exploration costs, has not been based on suggestions, so why are associated reclamation and environmental protection based on suggestions?

There is no explanation in this or other documents on why an underground bulk sample requires the destruction of surface vegetation and shallow soils to remove a relatively enormous volume of 400,000 tonnes of overburden (the most recent estimate, which had been increasing). Additionally, 96 ML-ARD samples are mentioned for rock "proximal" to the underground workings, but there is no mention of the 30 samples of overburden also tested for ML-ARD potential.

Because roughly half of overburden stockpiles at sites similar to Great Bear have significant ML-ARD potential, the Great Bear overburden should be assumed to have the same strong potential for water contamination and ARD (called "PAG" in this document) unless proven otherwise. It is alarming that Kinross Gold is assuming 100% of the overburden is environmentally benign.

Figure 2 of this Reclamation Strategy shows an unlined overburden stockpile where its seepage can contaminate local water and soil, and Figure 3 shows the overburden runoff and seepage is completely ignored. This serious omission can also be seen in Section 2.3 which ignores contaminant potential from overburden by simply addressing surface runoff and not subsurface

seepage and groundwater:

> "Runoff from the overburden stockpiles (will be monitored and treated to manage suspended solids as required and discharged)"

Section 2.1 on Underground Mining Methods Summary does not describe advanced exploration where a bulk sample of several tonnes is obtained and tested. Instead, Section 2.1 describes an initial four-year phase of mining of more than 1 million tonnes of waste rock and 200,000 tonnes (more recently, ~400,000 t) of overburden to obtain only 60,000 tonnes of ore worth tens of millions of dollars. In reality, four years of this type of advanced exploration is essentially being used as the first phase of the underground mine plan so that there is relatively little delay to start mining should the project be approved.

In the Project Definition (see Section 2 of this MDAG review), Kinross Gold provided three reasons for a relatively huge bulk sample along with 17 times more waste rock and now 7 times more overburden. However, as explained above, these reasons do not make sense. For example, Kinross says that bulk samples help to prove the continuity of underground access gold deposits and are very important to potential financiers. Yet, most of the proposed underground workings are focussed into two small lateral areas and not throughout the ore zone "to prove the continuity".

In Section 2.2 on Geochemistry Summary, it says:

> "The sampling approach and testing methods for the preliminary geochemical assessment are based on the requirements described under the Ontario Mining Act, namely guidance found within the DRAFT Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (MEM 1998)."

This same error occurs in the January 2023 Geochemical Characterization Workplan. The Ontario Mining Act through its Regulation 240/00 does not mention the 1998 British Columbia document. Instead, the relevant wording is:

> "The sampling program shall be conducted by a person who is qualified in Ontario … in accordance with a report prepared by William A. Price on behalf of the [federal] Mine Environment Neutral Drainage (MEND) program, entitled "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..."

Page P-24 of this 600-page federal Prediction Manual specified by the Ontario Regulation 240/00 says, "Major technical assistance was provided by Kevin Morin (Mine[site] Drainage Assessment Group)... and Kevin Morin provided major editorial assistance." Therefore, for the Great Bear Project, I can attest that "[t]he sampling approach and testing methods" are based on the wrong document.

Based on the 2009 federal Prediction Manual required by Regulation 240/00, the proposed ML-ARD work "in progress" is not sufficient, likely because the Manual was used by Kinross Gold only as "[a]dditional guidance" instead of a required document. This is easily seen in words like "preliminary geochemical assessment" and "initial evaluation". The ML-ARD predictions and information are the main basis for design of water treatment and for reclamation/closure. Thus, it is not acceptable for treatment and closure to be based on "preliminary" and "initial" information.

This can lead to misleading impact assessments and receiving-environment effects.

There are already errors in the Great Bear ML-ARD work as found in this Reclamation Strategy. These range from an incorrect definitions of the fundamental acronyms of "PAG" and "NPAG", to major problems with samples collected to date. For ML-ARD, all that is mentioned as of September 2023 is 96 rock-core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be mined during Advanced Exploration, but only "proximal" which could also mean "very different". Some percentage of this proximal rock, such as 50% to 67%, is considered not to have much ML-ARD potential based on "preliminary" data, but that is unreliable or wrong.

Kinross Gold is guessing on how bad the ML-ARD contamination will be, and admits some of it will be bad. However, it is likely years away from completing the appropriate ML-ARD work required under the Ontario Mining Act and Regulation 240/00, including the federal ML-ARD Prediction Manual (Price, 2009).

Section 2.4 of this Reclamation Strategy on Closure Objectives says:

> "The primary objective of closure is to rehabilitate the area to a long-term safe and sustainable state that considers the desires of local Indigenous land users to the extent practical (such as post closure land uses) by promoting vegetation communities that support habitat for local species diversity and aquatic habitat that will support healthy fish populations. The purpose of this memorandum is to seek input from indigenous communities regarding end land uses and closure concepts."

It is remarkable that Kinross Gold considers leaving "NPAG" rock perhaps with a cover of 0.3 m of potentially contaminated overburden, plus a large amount of stockpiled overburden at the surface, to be a "long-term safe and sustainable state...". To the contrary, this reclamation strategy can result in perpetual water treatment. A cover over "NPAG" rock does not stop ML and contaminated effluent, which could instead require perpetual water treatment. The closure plan and its estimated cost of only ~$10 million would not pay for this.

Section 3 on Progressive Rehabilitation Measures says:

> "Mine rock will be moved underground during the program as needed for use as road material, and potentially as backfill in underground areas for stability."

This issue arises later where "PAG" rock is proposed to be moved underground after mining of the bulk sample and the many underground workings. The seriously major problem here is that "PAG" rock can release relatively enormous amounts of heavy metals and other elements as it is flooded and submerged. This can create a toxic "soup" of underground water, worse than any seen at the surface, that eventually flows out into the surrounding environment and groundwater system. This would likely require long-term pump-and-treat remediation of the surrounding groundwater. Such pump-and-treat remediation is not included or costed in the ~$10 million total closure costs, and would likely cost much more than $10 million itself.

As part of closure, Section 5.1 says:

> "The portals will be backfilled with NPAG rockfill."

Because this rock will probably be an ML concern, including leaching heavy metals and other elements, backfilling the portals with this NPAG rock that will remain partially exposed and oxidizing will lead to perpetual ongoing water contamination. Adding to this contamination will be backfilled oxidized-and-contaminated PAG material that will likely release relatively large amounts of heavy metal and other elements. Contaminated water from this PAG material, backfilled into the underground workings and partially flooded to the maximum level, and from the NPAG material plugging the portals, would start flowing out of the mine area and into the surrounding groundwater system unless there is perpetual collection and treatment.

Section 5.6 on Soils Testing mistakenly says:

> "The primary soil contamination that could be expected from the AEX activities would result from the use / spillage of petroleum / diesel fuels. A soil sampling plan will be developed at the time of closure to evaluate potential hydrocarbon or chemical contamination, as appropriate."

In reality, the primary soil contamination would likely be from the elevated levels of heavy metals and other elements in wind-blown fugitive dust (see Section 8 of this MDAG review). This dust would come from the PAG and NPAG blasted-rock stockpiles, from the overburden stockpile(s), and from mine roads and building foundations made of the blasted rock and overburden.

Section 5.7 of this Reclamation Strategy says:

> "The primary long term closure concern with respect to the mine rock stockpiles is acid rock drainage and metals leaching. Preliminary geochemical investigations suggest that up to approximately 35% of the AEX mine rock could be PAG, as discussed in Section 2.2. During the AEX Program, the PAG and NPAG mine rock will be segregated in accordance with the AEX Mine Waste Management Plan, which is currently being developed at the time this document was prepared."

"Preliminary geochemical investigations suggest that..." is not acceptable for design of the waste-rock piles and the treatment system. Preliminary geochemical investigations can be seriously wrong and substantially underestimate contamination from the rock and overburden.

Section 5.7 also says:

> "It is anticipated that up to 127,200 m^3 of PAG mine rock will be stockpiled at the AEX Program and will need to be appropriately rehabilitated either progressively or at closure."

The closure costs from the Program Closure Plan (see Section 5 of this MDAG review below) show it will cost $30.00 per m^3 to relocate the PAG rock back into the underground workings, where it would then contaminate the underground water that will eventually flow into the environment. This would be a total cost of $3,816,000. However, Table 12-1 from the Program Closure Plan (issued two months after this Reclamation Strategy) estimates PAG rock higher at 191,000 m^3 (a remarkable 50% more) costing $5,730,000.

Section 5.7 also says:

> "The NPAG Stockpile footprint may be covered with up to 0.5 m of overburden and seeded for revegetation. Additional cover depth is provided overlying the NPAG Stockpile to account for potential losses to void spaces in the mine rock. It is anticipated that the overburden material will fill in the void spaces and support revegetation."

However, the overburden could have ML-ARD potential, and thus would not support vegetation but instead kill vegetation.

In summary of the Reclamation Strategy from September 2023,

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross Gold wants to proceed with Advanced Exploration.

- All that is available now is 96 core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". Also, 30 samples of overburden, which is intended to be left on surface and used for reclamation, were collected yet the results are not reported although there is ~50% probability that the overburden will release ML-ARD and thus be toxic. Kinross Gold and WSP are guessing how bad the contamination will be, but admit that some of it will be bad. They are likely years away from completing the ML-ARD work required under the Ontario Mining Act and its Regulation 240/00, because the work for Great Bear was not initially stated as consistent with Regulation 240/00. Even the definitions of ML-ARD acronyms used for the Great Bear Project are not correct according to the federal Manual specified by Regulation 240/00, which is additional evidence the Prediction Manual is not being followed.

- The bad ML-ARD rock appears to be associated with "rapid acid generation" according to the Program Closure Plan (reviewed in the next section below). This is an incorrect explanation of the phenomenon, but shows that the bad water quality will start coming out of the disturbed rock, including the underground mine walls, very quickly after initial disturbance. Informally, this is called "lag time" to ML-ARD, but most of the ML-ARD work has not yet been done to quantitatively estimate the lag time beyond "rapid". This contaminating rock will be stored on surface and possibly only later, likely after the lag time, some might be taken underground. When it contacts water underground as the workings partially flood and submerge, it will quickly release more contamination. This means the underground water moving into the surrounding groundwater system, and surface overflow if any, would have to be monitored and likely be treated for many years or in perpetuity after Advanced Exploration.

5. Program Closure Plan, Draft for Indigenous Review (November 2023)

This password-protected draft document for Advanced Exploration is only "for Indigenous review". This is odd to me since it is Kinross Gold's responsibility to design and justify the closure plan through certified professionals, rather than submit a draft to see if any First Nations notice the weaknesses and problems explained below.

In fact, since this draft report it is password protected, none of its content can be extracted for detailed re-interpretation and review. Thus, Kinross Gold is limiting the "Indigenous review" it is seeking.

In Table 5-3 entitled Approximate Mine Rock and Overburden Volume and Production Schedule in Section 5.7 on Mineral Materials Management, the total waste rock remains around 1,060,000 t relative to past documents (see the sections of this MDAG review above).

However, overburden has risen remarkably from past documents to "~170,400 m^3", expressed as m^3 instead of tonnes like the waste rock. It would be ~350,000 to ~400,000 tonnes of overburden. The overburden's ML-ARD status and its impact on water quality are poorly defined. This means that overburden at Great Bear becomes an environmental danger capable of substantial environmental impacts not currently identified or estimated.

Table 5-4 contains Preliminary Threshold Criteria for Segregation the AEX Program Mine Rock. The criteria for "PAG" do not say whether the criteria are "AND" or "OR", which is a huge difference and serious omission. Thus, ML-ARD is clearly still not reliably estimated, predicted, and understood at the Great Bear Project as of November 2023.

The text in Section 5.7.2 alarmingly says,

> "A preliminary sulphur threshold (TS) of 0.15% has also been proposed to differentiate between PAG rock and NPAG rock. The proposed threshold values are generally accepted as industry best practices in the absence of a site specific geochemical value."

No, 0.15%S is not "industry best practices". Quebec uses ~0.05%S and other provinces have not established a minimum value because technically there is no minimum value. Furthermore, it is rarely the sulphur level alone that distinguishes "PAG" (incorrectly defined in this document as "potentially acid generating" and "NPAG" (incorrectly defined in this document as "non-potentially acid generating"). Instead, according to the federal ML-ARD Prediction Manual (Price, 2009), the amount of Effective Neutralization Potential (ENP) plays a major role, as does site-specific criteria for the ENP-to-sulphur ratio.

This is explained in detail in the 600-page federal ML-ARD Prediction Manual that this ML-ARD work for the Great Bear Project is legally supposed to follow but does not. As a result, this "preliminary sulphur threshold" is an unreliable, questionable, and uncertified attempt to proceed with the design and planning for Advanced Exploration. Insufficient reliable information is available at this time, and even Appendix A "Certifications" is missing from this document. As a professional

in ML-ARD, I want to know the certified professional(s) who created these "preliminary" criteria.

"NML" is defined in this Closure Plan as "non-metal leaching" which does not apply to any rock in the world, as all rock is capable of leaching some metals and even nonmetals. In any case, "NML" in Table 5-4 for the Great Bear Project is rarely definable by the solid-phase level of a single element like "Arsenic < 30 mg/kg", but Kinross Gold does not know this because it has not yet completed the on-site and laboratory-based kinetic tests. If leaching were dependent on solid-phase levels as believed here, then Great Bear waters would contain thousands of mg/L of aluminum and silica because most of its rock is made of those elements. But this is not the case. This is why these are called "preliminary threshold criteria" in Table 5-4, which in reality are likely wrong and nonsensical.

Section 9.16 on Watercourses and Site Drainage contains Tables 9-1 to 9-5. Tables 9-4 and 9-5 contain predictions of on-site and effluent contaminant levels only after closure, which would obviously be much less than during active exploration. However, the text does not even discuss or explain Tables 9-4 and 9-5. They appear to be "thrown in" to appear complete.

Table 9-4 contains Geochemical Source Terms, which are the predicted aqueous concentrations for all contaminants in Great Bear water caused by Advanced Exploration. In reality, there are many problems with this Table 9-4 including:

- It does not include "PAG" concentrations which will be much worse and will be present for at least four years, because this Table is intended only for closure but alarmingly does not include the likely more severe PAG contamination when it is backfilled into the underground workings.
- It assumes closure drainage from "Covered and Revegetated Area" will be instantaneously at pre-exploration "baseline water quality", which is wrong.
- It shows elements likely requiring perpetual post-closure treatment include aluminum, antimony, arsenic, and selenium.
- It does not include predictions for many potential contaminants such as manganese, magnesium, sodium, potassium, barium, hardness, alkalinity, acidity, fluoride, chloride, bismuth, chromium 6+, lithium, silicon, strontium, tellurium, thorium, tin, titanium, and zirconium.
- It does not allow for federal emerging contaminants such as platinum-group metals and tantalum.
- It is based on a report "WSP 2023f" which is the draft "WSP, 2023f. Advanced Exploration (AEX) Phase – Preliminary Water Quality Estimate Update - Draft. WSP E&I Limited, April 2023". This report is only draft and thus is unreliable and not professionally certified.

Table 9-5 contains Mine Water Pond Overflow Estimated Water Quality which apparently would be overflow off the exploration site upon closure. It raises important questions, like how does aqueous sulphate decrease from 75-100 mg/L (Table 9-4) to 18-25 mg/L (Table 9-5) in mine-water-pond overflow when there is no treatment? In any case, some predicted concentrations are likely too high to discharge to the environment like arsenic. Also, sulphate reportedly increases the methylation of mercury and other elements.

Table 12-1 is the Closure Cost Estimate. The cost for moving PAG rock back underground is set at $30.00/m^3 which is ~$15.00 /tonne. The total waste rock from Advanced Exploration is estimated at 1,060,000 t. Kinross Gold currently guesses, based on preliminary uncertified information, the waste rock will be about one-third to one-half "PAG" requiring backfilling to the underground. Therefore, the cost for this task alone is $5,000,000 to $7,500,000 based on the unverified guess, and could reach a maximum of $15,000,000. Because the current Grand Total for Closure is estimated at ~$10,000,000, the backfilling of rock is the major cost item and could cost much more than the $5,730,000 currently estimated. In turn, Total Cost could cost many millions of dollars more than currently estimated from the guessed minimal amount. Put simply, closure costs are likely grossly underestimated.

All six appendices of this Program Closure Plan are missing, including professional certifications. This is likely not an error or oversight, meaning this Program Closure Plan should not be considered reliable and dependable.

In summary of the password-protected Program Closure Plan, Draft for Indigenous Review from November 2023,

- In November 2023, the volume of overburden has approximately doubled from previous documents without an explanation. Because overburden generally has a 50% probability of releasing ML-ARD and contaminating water, overburden represents a major but unexamined threat to water quality on, around, and beneath the Great Bear exploration site.

- "Preliminary" criteria are provided for separating "PAG" and "NPAG" rock and for "NML" rock. However, these acronyms are not used in an accurate manner consistent with the 2009 federal Prediction Manual (Price, 2009) required under Regulation 240/00. The preliminary criteria are not rational based on ML-ARD science unless justified with detailed and intensive site-specific studies, which have not yet been completed and certified for the Great Bear Project.

- The potential for ML-ARD after closure is presented all the way to detailed predictions of aqueous concentrations in mg/L for on-site water and effluent to the environment only after closure. However, these predictions are not explained in any detail, are not justified, appear anomalous, and are not certified by a qualified professional. Some predictions are actually pre-exploration baseline which are erroneously assumed to be re-established immediately at closure. Furthermore, these predictions are missing more than a dozen potential contaminants.

- The "PAG" rock, which would likely create the highest contaminant concentrations, is not included in this Program Closure Plan, presumably because this "PAG" rock will be backfilled underground. However, when placed underground, this "PAG" rock will likely continue to release severe ML-ARD until submerged, at which point a relatively huge amount of accumulated contamination would be released into the underground water. After the mine is refilled to equilibrium and the minewater begins flowing into the surrounding groundwater system and through the many permeable drillholes more than 500 km long to the

environment, it will contaminate large surrounding areas. This major risk to water quality and the environment is not even mentioned in this Closure Plan, which is a major omission.

- The backfilling of "PAG" rock at closure is the largest individual cost item for closure totalling around $10 million. However, this reflects the currently minimum volume based on preliminary, unreliable information. In the worst case, which was assumed for the Great Bear Project Definition and still not disproven, total closure costs could exceed $20 million.

6. Hydrogeological Workplan (December 21, 2022)

This Workplan for 2023 says:

> "The purpose of the program will be to develop a refined hydrogeological model of the site, support groundwater model calibration and be used for long-term monitoring. The information collected in the upcoming field surveys will supplement the existing information.... Hydrogeological testing and groundwater sampling will occur at specific locations near the Project site shown in Figure 1."

However, Figure 1 of the Hydrogeologic Workplan shows a major omission which would preclude fully meeting its purpose and objectives. The currently proposed mine plan shows the "Tailings Management Facility" extending at least 2 km to the west and northwest of Tear Drop Lake. Figure 1 shows that the Tailings Management Facility and its hydrogeologic effects would extend far beyond the western limit of the monitoring wells. Thus, many more monitor wells are needed westward and northward at least to Stone Lake, Gullrock Lake, and Genessee Lake.

In summary of this Hydrogeological Workplan from December 2022, there is a major omission that would preclude a reliable and comprehensive assessment of current baseline hydrogeologic conditions and of future impacts from proposed mining. The groundwater monitoring network does not extend far enough to the west and northwest, beyond the proposed western portion of the Tailings Management Facility.

7. Surface Water Quality Workplan (December 21, 2022)

This Workplan for 2023says:

> "Baseline surface water quality work has been ongoing for the proposed Great Bear Project (the Project) since 2020. This proposed workplan for 2023 is to gather supplemental water quality data that will be used to further support long term monitoring and the development of the Project."

This Surface Water Quality Workplan provides incomplete lists of important details prefaced by "including", like "These sampling locations include..." and "Standard suite of total and dissolved metals including...". This can lead to major problems in the future if a sampling location or water-quality parameter is missing.

For example, the "Standard suite of total and dissolved metals including..." does not mention important elements like manganese, titanium, thallium, and federal emerging elements like tantalum and platinum-group elements. Therefore, Kinross Gold is risking major omissions and flaws that can arise later by not being comprehensive in its "including" lists.

In summary of this Surface Water Quality Workplan from December 2022, there are insufficient information and details to determine if appropriate work is planned and conducted. This is because important details are listed only as "including". For example, major potential contaminants like manganese and thallium are not specifically listed, but perhaps they are implicitly included? There is no way to know.

8. Fugitive Dust Best Management Practices Plan, final draft (September 2023)

Section 4.5 on Material Stockpiles in this "Final Draft" states there will be two overburden stockpiles created during Advanced Exploration, one north of the mine-rock pile and another east of the crusher area. Some Great Bear documents reviewed above and the undated "AEX Site Plan - Updated.pdf" do not show this. Because the overburden has a general 50% probability of contaminating water and because overburden is specifically listed as a site component requiring ML-ARD evaluation and potential mitigation, this contradiction on overburden stockpiles is not acceptable. It further shows that Kinross Gold's ongoing issuing of "preliminary", "initial, and "draft" documents is causing confusion inside the project itself and thus should not be approved at this time.

Section 5.1 on the Composition and Characterization of Particulate Emissions contains a major error that would grossly underestimate the geochemical contamination of soil, vegetation, water, and biota by dust, and is thus not acceptable. Section 5.1 says:

> "Fugitive dusts from roadways and stockpiles may contain trace metals which may be considered negligible as these would be similar in concentration to the background rock."

The ML-ARD studies currently underway on ore, waste rock, and overburden have already shown that some material will contain substantial solid-phase levels of many elements and will leach to some degree. This is certainly not "background rock" as assumed in this fugitive-dust study. Therefore, fugitive dust should be an important component of impact assessment for Advanced Exploration and proposed mining.

Furthermore, proposed dust suppression by watering could lead to widespread metal leaching and water-quality degradation across and around the proposed exploration site.

In summary of the final-draft Fugitive Dust Best Management Practices Plan of September 2023 for Advanced Exploration, this work is unacceptable because it grossly underestimates the potential impacts from geochemical contamination of soil, vegetation, water, and biota by dust. This work assumes the on-site sources of dust "would be similar in concentration to the background rock". This is wrong and ignores the ongoing ML-ARD assessment of ore, rock, and overburden.

9. PTTW Application for Dewatering, final draft (October 2023)

This is one of the few Great Bear documents that provide names for the qualified person writing the report, appropriately signed as "DRAFT" at this time. However, the reviewer but not the author is a P. Geo. So additional information is needed on the qualifications and certifications of the author(s). PPTW stands for "Permit To Take Water", meaning using and removing water from the Great Bear site.

9.1 Main Report

The tone of this "final draft" report for Advanced Exploration is apparent from Section 1.1 on the Purpose and Scope of This Submission. It says:
"Water takings during the AEX Program will include:

- Water pumped from the underground exploration workings (underground dewatering)
- Incidental surface water and groundwater takings, expected to occur during excavation of water management ponds.
- Direct taking from Dixie Creek (up to 250 cubic metres per day; m^3/day) to be used for dust suppression, industrial activity (e.g. in support of development pad construction and packing) and advanced exploration drill water cooling (underground drilling).

"No other takings from other area waterbodies (lakes, rivers, streams) are proposed.

"Most of the dewatering water pumped from the underground exploration workings will be directed to ponds within the AEX water management system, treated and ultimately discharged to the environment to be approved under an Environmental Compliance Approval for Industrial Sewage Works (ECA ISW)"

First, note that the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning that the actual total water withdrawal from the local water balance, as shown in Table 4-1 (discussed below), would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these values are unrealistically low (see Section 9.2 below). This major withdrawal of water, that could upset and dewater groundwater zones like aquifers and surface waterbodies like creeks and lakes, is much more extreme that numerically indicated in Section 1.1. This justifies an impact assessment on the proposed Advanced Exploration, despite this final-draft document stating:

> "The AEX Program does not meet the requirements of the Impact Assessment Act, Physical Activities Regulations. A Federal Impact Assessment is therefore not anticipated to be required."

Second, note that the quotation above states that water taken from Dixie Creek would be used for "dust suppression" among others. As explained in the previous Section 8 of this MDAG review, adding such water to ML-ARD dust from ore, rock, and overburden could seriously degrade water quality throughout the site and surrounding environment. However, this major environmental risk

is not considered or even mentioned here or in the fugitive-dust study. In fact, it is unreliably assumed to be no environmental risk at all.

Third, the discharge of up to 7,703,000 L/day of water that is only partially treated (see the details in other sections of this MDAG review like Sections 5 and 11) into any receiving environment could cause significant impacts from (1) the physical volume of the additional water and/or (2) its altered chemistry from baseline with implications on the receiving environment and cumulative effects.

Table 4-1 on Requested Water Takings shows that the requested surface-water withdrawal from Dixie Creek is 250,000 L/day and an additional 170,000 L/day from pond excavations. However, more than 10 times this amount will be removed from the groundwater system every day. The additional groundwater withdrawal is estimated at 783,000 L/day from pond excavations, 2,000,000 L/day from underground pumping, and on perhaps 30 days each year an additional 4,500,000 L/day removed as a contingency. Furthermore, as explained below for Appendix B of this PTTW document (see Section 9.2 of this MDAG review), the groundwater model incorrectly underestimates the much higher inflows that would arise during desaturation of the overburden and the rock surrounding the mine inside its "Zone of Influence".

Total water withdrawal from the existing water balance could thus likely be much more than 7,703,000 L/day relative to the Dixie Creek withdrawal of only 250,000 L/day. All this water would be taken from the existing baseline groundwater/surface-water balance which has likely reached some type of baseline equilibrium over the last thousands of years. When up to 7,703,000 L/day or more is removed from this equilibrium, there could be major disruptions to local and regional surface waters and groundwaters.

For example, a significant portion of the underground pumping of more than 6,500,000 L/day could be pulled from Dixie Creek through the underlying groundwater system. Thus, "takings" from Dixie Creek could in reality be 250,000 L/day plus substantially much more than this through groundwater. "Takings" could also come from other streams, lakes, and groundwater zones like aquifers, despite this report clearly stating, "No other takings from other area waterbodies (lakes, rivers, streams) are proposed". This statement is not reliable and could be seriously wrong.

Section 5 of this PTTW Application discusses Potential Environmental Impacts, with Section 5.2.1 specifically on Dixie Creek. There appears to be significant confusion here on the impacts of dewatering the underground workings on Dixie Creek.

Part of this confusion arises in the false thinking that baseflow coming from groundwater is simply part of the total flow in Dixie Creek. In reality, groundwater baseflow likely has a different, more stable temperature and a different water quality than the surface water flowing past the Great Bear Project. Therefore, it is important environmentally and to the benthic ecosystem to consider baseflow coming from groundwater separately from surface flow already in the creek.

Another part of this confusion on the physical impact of mine dewatering on Dixie Creek is related to which surface flow is used. Section 5.2.1 uses Average Annual Flow, Low Flow Period Average Flow (March), and Low Flow 7Q20. These show that mine dewatering will reduce flow in Dixie

Creek by only 0.2 to 2.4%. Again, these impacts would be greater because the groundwater of Appendix B (see Section 9.2 below) has underestimated the amount of underground water that has to be pumped.

Table 5-2 is more relevant for Dixie Creek, also copied as Table 7-2 in Appendix B. It shows the important, separate baseline baseflow for Dixie Creek is 2,601,000 L/day. This is predicted to be reduced by 873,000 L/day during dewatering for Advanced Exploration, although this is likely substantially underestimated by the groundwater model. Thus, much more than 34% of Dixie Creek baseflow will be taken away by the mine, which would have significant adverse effects during drought periods and on the quality of the benthic aquatic habitat. Additionally, the baseflow for Unnamed Waterbody 3 (called "Dixie Creek Tributary (TL-3)" in Appendix B) would be reduced a substantial 55%. This justifies an impact assessment for the proposed PTTW Application.

It is very important to note that this PTTW Application for Dewatering, final draft, contains and is based on critical information in its Appendices. The following comments pertain to these appendices, which in turn shows the main report is not reliable and not reasonable as a PTTW Application.

9.2 Appendix B

Appendix B of this PTTW report is a "Draft" Groundwater Modelling Report to Support PPTW Application for Underground Dewatering Final Draft. It contains a serious error in the groundwater modelling that underestimates initial groundwater inflow rates and thus dewatering pumping rates.

Table 4-1 of the main report says 3,203,000 L/day of groundwater would be removed every day, reaching up to 7,703,000 L/day on some days. Table 6-2 of this groundwater appendix says that the groundwater grid, from Genessee Lake on the west to half of Rice Lake to the east, has total groundwater inflows and outflows of ~10,000,000 L/day. If this modelling were correct, this means that roughly 32% of all groundwater in the area of the Great Bear Project will be drawn into and out of the mine on a daily basis, with up to 77% drawn into and out of the mine on some days as a contingency. However, it could well be worse as explained next. This justifies an impact assessment for the proposed PTTW Application.

If dewatering starts and continues for several years as proposed for Advanced Exploration at the Great Bear Project, and later during the expansion of proposed mining, groundwater inflow will come from two basic sources. The first, initial inflow will predominantly reflect the desaturating drainage of pores in the overburden and fractures in the rock, which will be relatively high at first and then decrease. Notably, the modelling currently shows that the overburden will eventually be virtually 100% dewatered to its base. This is called "transient conditions" and reflects the "specific yield" of the overburden and the "storage coefficient" of the rock. As this first transient inflow slows, likely years after Advanced Exploration ceases, the groundwater inflow will then come from "steady state", reflecting the hydraulic gradients and the hydraulic conductivities.

This modelling for Great Bear in Appendix B and for the PTTW Application is solely "steady state",

with no high transient inflow considered and no values for specific yields and storage coefficients even mentioned. Section 6 of Appendix B on Groundwater Model Development is clear on this:

> "Groundwater modelling was conducted for two phases: pre-mining site conditions for model calibration and mine operations conditions to predict *groundwater discharge rate to the proposed fully developed and dewatered underground mine workings* [MDAG emphasis]. These numerical groundwater flow models consider 3D *steady-state flow conditions* [MDAG emphasis] and implement an Equivalent Porous Media (EPM) approach, which is deemed sufficient for characterizing the overall groundwater flow regime at the scale of this analysis."

Thus, groundwater inflows in the years of active mining during Advanced Exploration have been clearly underestimated by considering only steady-state inflows after the proposed workings are "fully developed". Also note the ambiguous and unjustified "deemed sufficient" for the overall "EPM" modelling of groundwater at the Great Bear Project.

Table 6-3 showed that pre-mining single-value "measured interpreted" baseflows at two locations agreed with the Simulated Baseflow reflecting only long-term steady-state conditions by 14% or better. These single-value baseflows were 2,281,000 L/day and 847,000 L/day, which are less than the total groundwater that would be pumped from the mine during Advanced Exploration. Thus, a concern arises on whether baseflows could be significantly decreased by this pumping during Advanced Exploration. The main report (see comments above in Section 9.1 of this MDAG review) says the (underestimated) pumping effect would be minimal on most statistical values of flow in Dixie Creek. It is not emphasized that pumping would substantially reduce baseflow, with differing water quality and temperature than the surface water, and would be even more significant during droughts.

Figure 6-6 shows that the pre-mining Simulated Groundwater Levels were often 5 to 10 m higher than Observed Groundwater Levels, showing a strong bias towards overestimated (higher) simulated groundwater levels. It is not clear if this suggests simulated hydraulic conductivities may be too low. In any case, this problem manifests in Figure 6-7 where the simulated levels around Great Bear and Dixie Creek are typically around 9 m too high, which incorrectly and falsely indicate Dixie Creek could not be significantly dewatered during pumping because the water table is simulated to be very high. This is probably why Table 7-2 shows that the substantial yet likely underestimated partial dewatering of Dixie Creek Tributary (TL-3) and baseflow of Dixie Creek is 55% and 34%, respectively, and these dewatering percentages could be much higher if modelling were more accurate.

Of note, Table 7-1 indicates dewatering of Dixie Creek is only 1% because it uses the average annual flow that includes the sum of all storm events. It does not consider lost baseflow during dry times when aquatic life, vegetation, and water quality can be more severely degraded. Again, the simulated groundwater levels around Dixie Creek and Great Bear are often modelled around 9 m too high and thus actual dewatering of creeks and lakes could be much higher than stated in this groundwater report. In this case, Section 10 incorrectly states and underestimates based on the modelling that:

> "At the end of the AEX project, when dewatering is at its maximum, the model simulates a baseflow reduction for the Dixie Creek of 8.5% of the estimated 7Q20 (10,368 m^3/d) and 1% of the average annual flow (114,912 m^3/d), which is unlikely to change the nature of the flow

regime in the creeks."

In Section 7.1 on Groundwater Inflow Rate and Zone of Influence:

> "... the simulated long-term groundwater inflow rate into underground mine workings is 1,920 m^3/d [1,920,000 L/day]. This estimate of groundwater inflow into the fully developed mine does not consider uncertainty, seasonal variations or any loss from aquifer storage."

This simulated inflow is consistent with the estimated 2,000,000 L/day requested "taking" in the main report and in Table 8-1. However, the occasional contingency of 6,500,000 L/day which is apparently from "uncertainty, seasonal variations or any loss from aquifer storage" is relatively major. It highlights the expected variability of withdrawals and discharges of water into the surrounding environment during Advanced Exploration. Moreover, the reference to "aquifer storage" highlights the failure of the modelling to consider higher-inflow transient conditions which would be most important in the early several years of Advanced Exploration.

However, even ignoring the important high-flow transient conditions, Table 7-1 shows that the steady-state 2,000,000 L/day can be easily exceeded by non-base-case conditions like three-times-higher hydraulic conductivity of bedrock and by the water-conducting LP Shear Fault 1.

Section 7.1 explains:

> "The model-predicted Zone Of Influence (ZOI), defined here as 1 m drawdown of head in the glacial till unit is shown in Figure 7-1. The ZOI is predicted to extend about 1.2 to 2.5 km from the centre of the AEX site to surrounding environs."

Using the 1 m drawdown contour is not appropriate here, because modelled groundwater levels are already around 9 m too high and because Figures 4-9 and 4-12 show that some shallow groundwater levels can vary by 1 m naturally. Thus, the Zone of Influence could turn out to be much larger and thus affect lakes and creeks. In any case, even a 1 m decrease in groundwater level beneath a creek or lake can lead to substantial dewatering.

Figure 7-1 shows Simulated Drawdown Contours in Glacial Till. However, drawdown is only shown as a maximum of around 36 m, which is obviously not correct for dewatered drifts up to 600 m deep. Moreover, the maximum drawdown of 36 m in the overburden means most of the pores of the overburden would be primarily drained into the mine, which occurs during the ignored transient conditions.

The apparent explanation for the discrepancy between the maximum 36 m drawdown and the dewatered workings 600 m deep is that the drawdown in the bedrock is not shown, but would locally obviously be around 600 m. This 600-m drawdown would likely create a relatively huge drawdown zone in bedrock around the Advanced Exploration and the proposed mine extending for many kilometers around. This would be much larger than in the Zone of Influence in the overburden shown in Appendix B Figure 7-1. This justifies an impact assessment of this proposed dewatering since many impacts of the dewatering have been ignored or underestimated.

9.3 Appendix C and Its Several Draft Monitoring Programs

Appendix C contains draft monitoring programs. The "Working Draft" AEX ISW Groundwater Monitoring Plan, like many other Great Bear documents, ignores the overburden that likely has ML-ARD potential and can seriously contaminate water. This lack of consideration for potentially contaminating overburden can be seen in Figure 1-7 Water Management Schematic that has no mention or recognition of the overburden stockpile(s). The same is noted in Figure 1-6 of both the "Draft" ECA ISW - Advanced Exploration Surface Water Monitoring Plan Draft and the "draft" AEX ECA ISW Aquatic Resources Monitoring Plan in Appendix C.

9.4 Appendix D

Appendix D Consultation Records is missing from this file.

9.5 Summary

In summary of this PTTW (Permit To Take Water) Application for Dewatering, Final Draft, and its several important appendices from October 2023, there are alarming errors and ambiguities that should preclude approval of PTTW. These should also trigger a detailed impact assessment, which this PTTW report conversely says is not needed for Advanced Exploration at Great Bear.

In the introduction to the main PTTW report, the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning because the actual total water withdrawal from the local groundwater/surface-water balance would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these values are unrealistically low as explained here.

The errors begin with groundwater modelling that is based on long-term "steady state conditions" after the mine is "fully developed" and dewatered, and not on the correct, higher-inflow "transient conditions". Thus, inflow, pumping, and dewatering are significantly underestimated by the groundwater model and the PTTW Application. Additionally, there are problems with unrealistically low estimated effects on partial dewatering of Dixie Creek and other creeks and rivers. For example, simulated groundwater levels are modelled around 9 m higher than measured around the mine and Dixie Creek, which artificially and incorrectly prevent additional dewatering of Dixie Creek.

Groundwater levels are shown to be drawn down during dewatering to a maximum of only 36 m even though the dewatered workings will be 600 m deep. This reflects (1) nearly fully dewatering of the shallow overburden and (2) the lack of admission on the likely huge drawdown and much larger "Zone of Influence" in the rock beneath the overburden.

Baseflows into Dixie Creek and other waterbodies can be critical to aquatic, benthic, and terrestrial ecosystems because of groundwater's typically different water quality and temperature compared to water already flowing at the surface. This becomes more critical during droughts when baseflow

may be the main source of surface flows. The PTTW Application ignores the fact that more than 34 to 55% of existing baseflow would be lost during Advanced Exploration. It instead points out that the loss to groundwater would be only 2.4% and less of total flow depending on the chosen surface-flow statistic.

Overburden is routinely ignored in this PTTW document and its appendices, despite the proposed hundreds of thousands of tonnes of overburden likely having at least some ML-ARD potential and capacity to degrade water quality. In fact, some of the underground dewatering would be sprayed on the overburden for dust suppression, which in turn could lead to contaminated runoff across and off the site.

10. Draft (?) Detailed Project Description (November 2023)

In June 2023, Kinross Gold released the [final] Initial Project Description for the Great Bear Gold Project. Five months later, Kinross Gold issued the Detailed Project Description, where the first cover page showing "Kinross" says "DRAFT", but the second cover page for WSP E&I Canada Limited does not say "Draft".

The Kinross/WSP documents reviewed so far for proposed exploration and proposed mining are a mess with confusions over draft, preliminary, initial, and final. There is no reliable way to know what information issued by WSP and Kinross is considered final, reliable, and still applicable. In my opinion, all reviews for Great Bear should stop until Kinross Gold and WSP identify the final designs and plans for proposed exploration and proposed mining. Only then should they issue the final documents, signed and approved by qualified professionals.

Because the Initial Project Description was followed five months later by this perhaps-draft-perhaps-not-draft Detailed Project Description that apparently includes responses to Initial concerns, only the latter document is reviewed here.

10.1 Section C.3.3 Proposed Mine Facilities and Infrastructure

Section C.3.3 and Table C.1 provide a detailed list of all proposed mine facilities, many of which would be created during Advanced Exploration, which as explained above is closer to a first phase of mining. Many of the listed facilities require ML-ARD assessment including all under the headings of Underground and Open Pit Mine including mine walls and sumps, Stockpiles including overburden and waste rock, Tailings and Site Water Management including ditches, Aggregate Supply, Waste Management, Fuels and Reagents, all access roads and haul roads, all excavations and foundations for buildings, facilities, pipeline corridors, upgrades to bridge crossings, and the core shack including core-storage areas. Because these ML-ARD assessments are not completed at this time, it is prudent to conduct an impact assessment on all these components.

The Stockpiles section says:

> "Stockpiles will be created on the surface near the mine to store ore, mine rock, and overburden / organics resulting from site and mine development. Preliminary storage capacities of the stockpiles for the Project are the following, subject to revision as a result of ongoing exploration and technical studies:
>
> - Run of mine (i.e., uncrushed rock as transported from the mine) ore stockpile: approximately 0.1 to 0.5 million tonnes (Mt)
> - Low grade ore stockpile: approximately 5 to 20 Mt
> - Mine rock stockpile(s): approximately 210 Mt
> - Overburden / organics stockpile: approximately 40 Mt."

Thus, upon full mining, there would hundreds of millions of tonnes of mine waste, with most of it likely remaining on the surface and requiring perpetual maintenance. Additionally, low-grade ore

stockpiles are sometimes left on site after closure as waste-rock dumps. Because of this, some jurisdictions require financial assurances on perpetual maintenance of the low-grade dumps until/if they are processed. This should also be done for the Great Bear Project.

> " Based on the scale of the stockpiles and the environmental baseline studies which are in progress, it is expected that one or more of the Project stockpiles will overprint minor creeks which may contain fish."

Thus, there will be "overprint" impacts through destruction of fish, fish habitat, and associated water quality.

The Ore Processing section says:

> "Ore processing will entail several stages of conventional mineral processing such as grinding and classification, and cyanide leaching to separate the gold / silver from the gangue leading to production of doré bars."

Thus, the processing will add contaminants including cyanide and accelerated leaching of metals and other elements that will contaminate the water in the process, in the tailings impoundment, and in the fugitive seepage that will flow into the environment.

Also:

> "There are no sources of mercury from the ore processing."

This appears impossible because the ore rock going in, and the tailings and concentrate coming out, of ore processing should and will contain some level of mercury. The processing could even increase the solubility or leaching rate of mercury and other elements. Therefore, this appears to be an error unless Kinross Gold can prove the tailings and concentrate from the ore processing contain absolutely no mercury. This is highly unlikely if not impossible to prove.

The section on Tailings Management explains:

> "The primary by-product of ore processing is tailings. Tailings consist of ground rock and associated process effluents that result from the processing of ore. Tailings will be treated for cyanide destruction before storage. As part of the ongoing geochemistry investigations it was determined that the tailings may be potentially acid generating, Kinross is investigating the potential to desulphurize the initial tailings stream resulting in a non acid generating flotation tailings, and a smaller quantity of sulphide tailings that would be managed in a manner to mitigate their acid generating potential."

Cyanide destruction is rarely perfect and sometimes simply converts the cyanide to thiocyanide or cyanate which can then revert to cyanide after release to the environment. Because the details of Great Bear's cyanide destruction are not given, it is prudent to assess it for potential environmental impacts.

Tailings Management further says:

> "Tailings will be transferred from the processing plant to an onsite surface management facility as a slurry, or potentially as a filtered cake. A quantity of the tailings will also be sent to a paste backfill plant where they will be mixed with a binder (such as cement) to increase their strength, so that they can be returned to the underground workings to provide additional underground stability. Tailings could also potentially be stored in the open pit after mining

is complete.

Tailings paste backfill, dewatered filter-cake tailings, and the relocation and in-pit disposal of tailings each could have unique adverse impacts on water quality and this should be assessed by Kinross Gold.

> "Further detail on tailings management facility, including dam designs as applicable, will be developed as engineering progresses for the Project. The facility will be designed in accordance with all regulatory requirements including the Canadian Dam Association Dam Safety Guidelines as applicable."

Thus, the details for evaluating potential environmental impacts will not be available until "engineering progresses", which is consistent with the ML-ARD work which will not be completed for at least a few years.

Notably, this section on Tailings Management has no detailed description of water management including any water recirculation. This is a major omission that precludes a reliable assessment of impacts from how much water would be needed daily to run this proposed mine.

The section on Buildings and Yard Areas states:

"The following new permanent facilities are planned for the Project:

- Process plant and crusher / conveying system
- Mine office / dry / maintenance / wash bay complex
- Cold and warm storage buildings
- Reagent storage facilities
- General laydown areas and parking
- Additional core shack, laboratory and outbuildings
- Accommodations / camp
- Explosives storage facilities.

These will be supported by related road, piping and power infrastructure as needed."

The disturbed rock or overburden used in any of these Areas requires an ML-ARD assessment as explained in the 2009 federal ML-ARD Prediction Manual (Price, 2009).

The section on Water Management Facilities and Drainage Works explains:

> "Kinross proposes to establish an integrated water management system for the site to manage contact water from the underground mine, open pits and surface facilities. The underground mine will intercept groundwater, while the open pit will collect groundwater, runoff and direct precipitation. Mine water from the required dewatering of the underground mine and open pit, to enable mining to occur will be collected in sumps and pumped to the surface for additional management. The mine water management and treatment infrastructure developed for the AEX program is expected to be re-used at the beginning of operations and will potentially be incorporated into the overall integrated water management system for the operating mine.
>
> "Precipitation and surface runoff that comes into contact with mine-related facilities on surface will be collected in ditches and collection ponds designed. As needed, the water will be directed to the integrated water management system for treatment and discharge with

other site contact water.

> "The integrated water management system and associated effluent treatment plant will be designed and operated to ensure that effluent from the site meets all regulatory requirements and can be discharged to the environment. Effluent will be discharged to the Chukuni River a large watercourse with high assimilative capacity. This will allow continued use of the pipeline corridor established for the AEX program. The additional infrastructure required for the mine has not yet been determined."

This section on Water Management Facilities and Drainage Works does not explain the storm return periods for which the drainage works would be sized. Nor does it specify the design return period for the post-closure water management, such as the 24-hour 1-in-200-year precipitation or the Probable Maximum Flood. This is a major omission that precludes a reliable assessment of impacts from storm events that could lead to spills of contaminated site water, and thus confuses the decision on whether an impact assessment should be conducted.

Under Access and Site Roads:

> "A network of roads of will be established within the site as needed, minimizing water crossings. New roads will be constructed of aggregate or non-potentially acid generating mine rock. New major road and watercourse crossings are not expected for the Project, although minor crossings and cross drainages may be needed. The water pipeline corridor which will be developed for the AEX program, and potentially expanded with additional pipelines for the mine, includes an access road to allow for pipeline inspections, environmental monitoring and maintenance, and is expected to cross four headwater creeks / low-lying swales, likely as culverts (Figure C.1 and Figure C.2). The existing prefabricated truss bridge across Dixie Creek may be upgraded."

Any surface and subsurface disturbance including new roads require ML-ARD assessments before an impact assessment can be done according to the 2009 federal ML-ARD Prediction Manual (Price, 2009).

The Section on Aggregate Operations contains a serious error:

> "Aggregate will be required to develop the Project. The primary source of material is proposed to be *nonreactive mine rock and overburden* [MDAG emphasis] from stripping and other construction activities within the site. There are licensed commercial aggregate pits nearby (along Tuzyk's Road) that also represent a potential source of aggregate for the Project. Discussions with the owners of these aggregate facilities are planned to explore potential commercial arrangements.
>
> "New quarries for crushed rock and sand and gravel pits may be established on the Property if needed under the care and control of Kinross. Locations are not as yet known but may be situated at future development locations (such as within the tailing management area)."

Because there is no such thing as "nonreactive mine rock and overburden", then there will be no aggregate which is "required to develop the Project", which in turn literally means there can be no Great Bear Project or mine. This illustrates how Kinross Gold is submitting perhaps-draft

documents with statements intended to alleviate concerns that are instead false and misleading.

This document is not signed and certified by Qualified Professionals, so at least portions of this Detailed Project Description are more akin to Public Relations than technical accuracy. Grassy Narrows First Nation should be aware of these false statements in important documents supposed to describe accurately and reliably the proposed exploration and proposed mining of the Great Bear site. It is not prudent to decide impacts of proposed exploration and mining based on false technical statements.

10.2 Section C.3.4 Preliminary List of Mine Activities

This section C.3.4 lists many "preliminary" activities during Construction, Operations, and Decommissioning and Closure. While many sound like generally good ideas, they can turn out to be bad ideas and not even possible at the Great Bear Project.

For example, here are some "preliminary" activities:

> "Overburden and organic material from the open pits will be either stockpiled or used for progression reclamation"
>
> "Mine rock extracted from the underground workings and open pits will be stockpiled, re-used as aggregate, or potentially re-used a consolidated rockfill underground"

The Project Definition Document of December 2022 assumed all the mine rock would have strong ML-ARD potential and would substantially contaminate water. Overburden was not even assessed although required by Ontario Regulation 240/00. It is understandable that the initial worst-case scenario may be modified as years go by and as ML-ARD studies are completed according to the 2009 federal ML-ARD Prediction Manual. However, there may be little change from the worst case at the Great Bear Project, but no one knows at this time. Thus, these "preliminary" activities can cause wider and worse impacts; no one knows at this time. Nevertheless, this perhaps-draft Detailed Project Description lists them anyway without pointing out their potential for adverse impacts.

This section also says,

> "As operations continue the open pit will have a progressively larger surface area and will become deeper"

The proposed pits are a concern to me as I do not see them justified by Kinross Gold. In fact, Figure C.5 shows that most of proposed pits and excavations are not needed to access most of the ore. Thus, there seems to be another, unstated reason for them, but I cannot see what it is.

10.3 Section C.3.5 Preliminary Decommission Approach

This section says:

> "Decommissioning and final closure of the Project site will be governed by the Ontario Mining Act, and its associated Regulations and Codes, and will be informed by ongoing engagement with Indigenous Nations and potentially affected stakeholders. The Act requires

> that a Closure Plan be filed for mining project before construction, and that financial assurance be provided so sufficient funds are in place to carry out the decommissioning activities.
>
> "A preliminary description of the proposed decommissioning and reclamation measures is provided in the text that follows. The preliminary measures are subject to consultation, additional engineering and regulatory review. The active phase of decommissioning and reclamation is expected to be completed within approximately three years of the end of operations. Environmental monitoring will continue after reclamation is completed, until such time as the closure objectives as determined in the Closure Plan have been achieved."

It is important to note that this preliminary closure plan, which should include early and unexpected closure but does not, will determine the initial financial security. Thus, all potential major sources of contamination should be identified and costed now, but this is far from the case.

Many serious long-term concerns are omitted and thus cannot be added at this time to the cost of the initial financial assurance. For example, the section on the Underground Mine does not mention the costly and serious water-quality degradation that would likely accompany the backfilling of "PAG" rock into the mine, where the rising, flooding water can become seriously contaminated beyond that seen at the surface. This seriously contaminated flooding water would likely eventually reach an equilibrium level where it would begin flowing out into the surrounding groundwater system and the environment years after closure. This would require long-term or perpetual pumping and treatment of groundwater, which could substantially or enormously raise the financial assurance.

Alternatively, the "PAG" rock (and overburden) could be kept in a stockpile at the surface where its ongoing seepage of infiltrating water through some type of cover would require perpetual collection and treatment. This section implies the ML-ARD would stop by incorrectly saying:

> "Reclamation measures will be designed to mitigate acid mine drainage / metal leaching concerns as needed. This may include design and placement of an appropriate cover over the mineral waste."

ML-ARD is not mitigated cheaply and permeable covers do not stop infiltration but may reduce it if well maintained in perpetuity, still leading to perpetual maintenance and water treatment. Very expensive impermeable covers may virtually encapsulate and isolate the contaminating rock and overburden if carefully maintained in perpetuity, which also includes additional costs for perpetual maintenance and repair.

Or perhaps as Section C.6 on Potential Alternatives states, the mine rock would be used as "reclamation material" where it could contaminate more of the site. Or the mine rock would be placed into "storage in depleted open pit". In the pits, the backfilled mine rock would contaminate inflowing water that would eventually fill and flow into the surrounding environment, or eventually drain down into the underground workings where the second paragraph above explains the fate of the underground water.

One way or the other, the closure cost only for the rock and overburden alone will likely be much higher than envisioned in this perhaps-draft Detailed Project Description.

There are other examples like this that are not recognized and costed in this Section C.3.5.

Therefore, whatever the current estimated cost of financial assurance based on Section C.3.5, it should be raised substantially higher. This would also cover the expense should early or unexpected closure occurs, which is credible and often expected but is not mentioned or considered in this Great Bear document.

10.4 Section F Potential Effects of The Project

Section F on potential effects of the project during Construction, Operations, and Closure starts with Table F.1 Preliminary List of Change to the Environment under Federal Jurisdiction.

The row of Table F.1 for the Fisheries Act during the Construction Phase says:

> "Alteration, disruption and destruction of fish and benthic fauna habitat from direct disturbance (including potentially from overprinting by mine rock and tailings management facilities), blasting and mine dewatering" with the Preliminary Area of Influence only "Project footprint"

For mine dewatering, the ongoing drawdown of groundwater and ongoing dewatering of surface waterbodies does not stop immediately as the pumps are turned off at the end of Operations, but can continue for many years afterwards through Closure. Also, the Area of Influence could be much greater than the Project Footprint (see Section 9.2 of this MDAG review). However, Operations and Closure does not mention this long-term ongoing impact. This illustrates how "Preliminary Changes" are only partially recognized in this Detailed Project Description, and important ones are not mentioned and considered.

Additionally, for Closure under the Fisheries Act Table F.1 says:

> "Potential for creation of fish habitat in new pit lakes, expected to be re-connected to the Dixie Creek system"

This shows a lack of understanding of water-quality impacts and ML-ARD, similar to the Great Bear "nonreactive mine rock and overburden" that does not exist (see Section 10.1 of this review). It sounds good to non-technical readers to say the pit lakes will be fish habitat and "re-connected" to Dixie Creek although they are not currently connected. On the other hand, technical readers know this is highly unlikely considering the type of rock and ML-ARD likely to come from Great Bear rock, pit walls, and underground mine walls. These Great Bear pits as proposed, long after Closure, should not be expected to meet the requirements of the Fisheries Act.

Table F.2 Preliminary Summary of Potential Environmental Effects says:

> "- Underground mine and open pit dewatering will affect the local groundwater levels and may affect surface water flows
> - Groundwater quality is not expected to be affected"
>
> "Preliminary Areal Extent:
> - Dewatering may result in a depression in the local groundwater level which is currently under investigation"

Section 9.2 of this MDAG review explains how Kinross Gold's groundwater modelling is aware of, but avoids showing, the substantial lowering of groundwater levels by dewatering to a remarkable depth of ~600 m in the rock, while the overlying overburden is virtually fully dewatered to its base. This dramatic lowering will be much more than the comfortable sounding word of "local" in the above quotations. It will be much worse than "local". This will also likely have a major impact on groundwater quality, as Section 9 of this MDAG review explains, despite Kinross Gold's unjustified and unreasonable expectation that "Groundwater quality is not expected to be affected".

Furthermore, surface creeks and lakes could be dewatered much more than modelled because modelled groundwater levels are simulated around 9 m higher than measured, reducing the modelled and predicted dewatering below reality. Baseline flows to local surface waterbodies, which are critical to the benthic ecosystem and aquatic life due to their differing chemistry and temperature, will be reduced by 34% and more, but no one yet knows how much more.

Section F.6.1 on Atmospheric Emissions has a major omission that shows the environmental impact from atmospheric emissions would be much greater than stated. Section 8 of this MDAG review has explained that fugitive dust at Great Bear, and any water used to suppress this dust, would have a substantially larger environmental impact than currently recognized and modelled. Thus, impacts from air emissions have been underestimated in this Detailed Project Description that could be used to determine an impact assessment.

Section F.6.2 Liquid Discharges states:

> "Mine water will contain suspended solids from mining and earthmoving activities, ammonia residuals from ammonia-based explosives, and residual hydrocarbons from heavy equipment operation. Leaching of the exposed bedrock within the underground mine and open pit may potentially contribute minor quantities of metals to the mine water."

This is another example of bad science appearing as technical information in this perhaps-draft Detailed Project Description.

- First, underground mine water will also contain dissolved metals and other inorganic contaminants.
- Second, since ammonia is expected to be so high from underground explosives that a special treatment circuit is needed for it, then the always accompanying high nitrate and nitrite that will not be treated but discharged to the environment will also be high and contaminating.
- Third, since underground mine water will contain hydrocarbons, why is there no option to treat these potential organic contaminants?
- Fourth, leaching of mine walls in underground workings and open pits can, and elsewhere have, seriously contaminated the mine water, with the contamination increasing as the area of mine walls increases during mining. This could happen at Great Bear because more than 10 km of underground workings would likely be mined. However, the ML-ARD testwork to predict this under the federal ML-ARD Prediction Manual will be in progress for at least a few years. So, once again this Detailed Project Description misleads by already concluding that the leaching "may potentially contribute minor quantities of metals to the mine water". The reality could just as easily turn out to be "the leaching will contribute substantially high and toxic quantities of metals to the mine water". No one knows yet, not even Kinross Gold and its consultant, WSP.

Some day in a future year, reliable "Modelling will be completed to assess the volume and quality of the water requiring management, which will be used in the design of the integrated water management and treatment facilities on site." At this time, the groundwater requiring management has clearly already been underestimated (see Section 9.2 of this MDAG review). Until then, no one knows with reasonable confidence how much water has to be treated, how severely it will be contaminated, and how thoroughly it will be treated.

The subsection on Process Plant says:

> "Excess process plant water is expected to be pumped with the tailings to a tailings management facility for storage. The tailings and process plant water will contain metals from the processing of metal-containing ore and residual processing reagent products. A cyanide destruction circuit will be established within the process plant to treat residual cyanide concentrations in the tailings and process plant water, prior to pumping to the tailings management facility."

A major aspect of water management and tailings management is the percentage of discharged process water that will be recirculated back to the process to minimize freshwater usage and contamination by "metal from the processing". This issue is not mentioned and thus is a serious omission. Additionally, "cyanide destruction" is not perfect and may not literally destroy cyanide but temporarily mask it until its release to the environment. These important issues are not mentioned either. Thus, this quotation gives the false impression that cyanide and metals will only be "residual" and will be treated to minimize them, but this is simply guessing that is not consistent with ML-ARD testwork so far.

Section F.6.4 on the Environmental Management System does not explain the currently likely scenario that one or more additional contaminants not currently recognized will arise in on-site water (see also Section 11 of this MDAG review). This would require at least months of storage of contaminated water on site until the treatment plant is expanded and updated. Therefore, the on-site storage of months of site-contaminated surface water and groundwater should be a major objective of the Environmental Management System.

10.5 Summary

In summary of this perhaps-draft Detailed Project Description of November 2023, the first cover page by Kinross says this document is "draft", but the second cover page by the authors, WSP, does not say "draft" so perhaps this is the final document. If so, it has not been signed by qualified professionals and thus should be rejected.

In any case, there are so many problems, misleading statements, errors and omission concerning ML-ARD, water quality, and environmental impacts that they cannot all be summarized well here. These problems include the following.

- The false statement that there will be no sources of mercury from the ore processing when in fact the tailings and concentrate from the process will contain mercury. The processing could even cause mercury and other elements to leach more quickly and become more mobile.

- Contrary to the impression given by this Detailed Project Description, cyanide destruction is not perfect and can simply mask the cyanide temporarily in the environment, but the important testwork to determine this has not yet been done for the Great Bear Project.

- Significant impacts on water quality can arise from seemingly benign proposed activities like paste backfill of tailings into the underground mine and dewatered filter-cake tailings, but the potentials for serious impacts are not recognized or not even mentioned in this perhaps-draft Great Bear document.

- Storm events and equipment upsets can lead to relatively large variations and unexpected impacts, day-to-day or even hour-to-hour, during proposed exploration and proposed mining. Instead, these Great Bear documents use averages like monthly which incorrectly assume flows will be the same every day of a month which is far from reality. Environmental impacts and spills can be caused by large variations, as well as longer-term averages, so the environmental risks of proposed exploration and proposed mining at Great Bear remain mostly unknown and not identified.

- Nonsense pseudo-scientific statements are used, like the aggregate required to build the Great Bear Project would be "nonreactive mine rock and overburden" which does not exist. This clearly shows that experienced and qualified professionals were not included in the writing of this perhaps-draft Detailed Project Description. If there is a true commitment to "nonreactive mine rock and overburden" which does not exist, then the Great Bear Project stops now.

- There is a lack of ML-ARD assessments for some site components like aggregate.

- There is a prevalent but likely false belief that "NPAG"rock will have little to no impacts on ML-ARD, water quality, and the environment. However, this has not been proven for the Great Bear Project and is likely wrong based on other minesites around Canada. "NPAG" rock can actually generate more acid than "PAG" rock and still release seriously contaminated levels of many metals and other elements at near-neutral pH.

- The financial assurance to ensure proper and fully paid closure of the proposed Great Bear Project is grossly underestimated based on existing information. Furthermore, the financial assurance should also include contingency costs for early or premature closure but it does not.

- There are likely devastating, expensive, and unrecognized ML-ARD consequences on water quality from the proposed relocation of "PAG" rock into the underground workings after operation.

- The ongoing, unproven, and likely wrong, belief continues that overburden would be environmentally benign, can be used across the site for reclamation, and can be sprayed with water to control dusting when it could instead create contaminating water around, below, and beyond the Great Bear site.

- There are unfounded beliefs that dewatering during exploration and mining would have minimal

effect on the local and regional water balance, and would not significantly dewater surface creeks and lakes including their environmentally important baseflow. These false beliefs are based on flawed groundwater modelling for the Great Bear Project explained earlier in this MDAG review.

- There is a false belief that dust blown off the site during proposed exploration and proposed mining and into the surrounding environment, vegetation, soil, water, and aquatic ecosystems is benign at "background" levels.

- A false belief is stated that only elevated and toxic ammonia, and no other contaminating nitrogen species from explosives that consistently accompany the ammonia, will appear in mine water during proposed exploration and proposed mining.

- There is an unsupported and likely substantially underestimated statement that the mine walls in the pits and underground workings "may potentially contribute minor quantities of metals to the mine water" instead of the more typical significant quantities of metals seen at many other minesites around Canada. This is taken to the likely ludicrous statement that there would be "Potential for creation of fish habitat in new pit lakes, expected to be re-connected [sic] to the Dixie Creek system".

- There is no recognition of the implications, costs, and impacts of storing months of contaminated mine water on the site should one or more "unexpected" yet currently predictable inorganic contaminants and ML-ARD occur on the site water during and after proposed exploration or proposed mining.

11. Water Treatment during Proposed Exploration and Proposed Mining

Most of the contaminated water at the Great Bear Project during proposed exploration and proposed mining would be subjected to water treatment. There would remain some fugitive contaminated water and contaminated dust that would impact the surrounding environment. This fugitive contamination has not been assessed in detail by Kinross Gold, and is even ignored or not recognized in several Great Bear documents as shown above in this MDAG review.

If fugitive contamination turns out to be minimal, then water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts. Therefore, proposed water treatment should be examined and justified in great detail. This has not yet happened for the Great Bear Project.

At this time, I could not find any detailed and professionally certified report on water treatment for proposed exploration and proposed mining. The previous sections of this MDAG review have discussed water treatment as it appeared in some documents, where the current information was found lacking or misleading.

Minewater-treatment plants are not off-the-shelf available at stores like Canadian Tire. This is because their treated effluent concentrations to the environment are very sensitive to the site-specific inflow rate of water and to the inflowing variations in aqueous concentrations of each contaminant element requiring treatment.

These treatment plants can be unstable when exposed to variable flows or to variable inflowing contaminant concentrations, resulting in only partially treated and still-contaminated effluents. Therefore, water treatment for proposed exploration and then again for proposed mining at the Great Bear Project has to be carefully designed, based on well-justified and professionally certified information on surface hydrology, subsurface hydrogeology, ML-ARD, and on-site geochemical source terms.

As shown in the previous sections of this MDAG review, this "input" information into the site-specific and reliable design of water treatment at Great Bear does not exist and will not likely exist for at least a few years. Until then, the available preliminary information is corrupted by errors and missing details. Therefore, it is not possible at this time to reliably define and design the required water treatment at Great Bear, or to estimate effluent concentrations, environmental impacts, and cumulative effects.

To provide some guidance to Grassy Narrows First Nation on aspects of water treatment at the Great Bear Project, it is helpful to review and comment on one of the latest documents that contain some details on possible water treatment. This document is: Great Bear Project Proposed Underground and Open Pit Gold Mine, a PowerPoint presentation made to Asubpeeschoseewagong Netum Anishinabek, dated November 10, 2023

Slide 20 of this presentation is entitled "Water Treatment". It points out that:

> "Contact water discharged to the Chukuni River will be managed to achieve regulatory requirements."

It is important for Grassy Narrows First Nation to recognize that "regulatory requirements" can vary vastly and that the applicable and protective requirements have to be carefully chosen based on site-specific information like flow rates and variations in influent (ML-ARD) and effluent concentrations. Alarmingly, Table 5-6 shown on Slide 20 invokes the "MDMER" or Metal and Diamond Mine Effluent Regulations, which allow toxic levels of metals and other elements. For example, normally toxic levels of 100 ug/L and more are allowed for arsenic and copper, and normally toxic 80 ug/L and more are allowed for lead.

This should be an immediate warning to Grassy Narrows First Nation that Kinross Gold does not intend to treat the site water to safe levels. Instead, treatment will only reduce concentrations to still-toxic levels and then rely on dilution in the Chukuni River to eventually reduce it almost to background levels.

The usage of toxicity dilution in the Chukuni River would create a "mixing zone" for some distance in the river, in which toxicity still exists and for which Fisheries and Oceans Canada would have to authorize the mixing zone. There appears to be some hydrodynamic modelling already done for this mixing zone in the River, but no details like flow rates and their variabilities were provided. Because the previous sections of this MDAG review showed that long-term to perpetual treatment and dilution may be needed for the Great Bear Project, Grassy Narrows First Nation should understand this will represent a very-long-term impact.

Additionally, such long-term ongoing discharge and dilution will add to cumulative effects, about which Grassy Narrows First Nation has expressed serious concerns.

Slides 20 and 21 present additional details on treatment. For example, a special and likely expensive ammonia treatment circuit will be included to treat elevated and toxic ammonia from blasting residues. Remarkably, nitrate and nitrite, which can also be toxic and can stimulate eutrophication in the Chukuni River and Dixie Creek, always accompany ammonia from the blasting residues. However, they are not even recognized here or in other Great Bear documents. This is a serious and unacceptable omission for the Great Bear Project.

Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

Slide 20 also commits to "ultrafiltration" which typically removes all suspended particles coarser than about 0.02 um. Because "dissolved" concentrations include nanoparticles and small particles up to about 0.45 um, this proposed ultrafiltration would also lower the functionally "dissolved" concentrations, but not those of fully dissolved elements. Thus, Great Bear treatment should be capable of approaching CCME (Canadian Council of Ministers of the Environment) safe criteria for aquatic life, but may not meet Grassy Narrows First Nation water-quality criteria (GNFNWQC). CCME aquatic-life guidelines and GNFNWQC could replace the toxic MDMER criteria and significantly reduce or eliminate the mixing zone and cumulative effects in the Chukuni River.

However, none of these details are discussed or mentioned in Great Bear documents.

Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called "sludge". In many jurisdictions, treatment sludge like that proposed for the Great Bear Project can reach "hazardous" or "special" waste levels, requiring the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and in sediments including soils and benthic ecosystems.

All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge. This is a major risk for serious environmental impacts that should be addressed in great detail for proposed exploration and proposed mining. I recommend that Grassy Narrows First Nation require intensive studies on the treatment sludge that will remain and be managed somewhere in perpetuity.

In summary for water treatment, Great Bear documents invoke water treatment as the major process that would prevent or minimize environmental impacts of proposed exploration and proposed mining. This is not literally true, because there will be fugitive contaminated water and contaminated dust leaving the site, but this fugitive contamination is ignored or not recognized in many reviewed Great Bear documents.

In any case, water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts, and thus requires intensive study and characterization. However, at this time, water treatment for proposed exploration and proposed mining is ambiguous and contradictory among the documents. This should be expected because the input flows and input contaminant concentrations (ML-ARD) will not be known reliably for at least a few years. Nevertheless, there are serious concerns about water treatment now including the following.

- Kinross Gold does not expect to treat site water to non-toxic levels. Instead, treatment would only be down to still-toxic levels based on the Metal and Diamond Mine Effluent Regulations. Thus, Kinross Gold intends to rely on significant dilution of its contaminated effluent within a "mixing zone" in the Chukuni River. Such a mixing zone would include zones of significant toxicity and would require formal authorization from Fisheries and Oceans Canada. In any case, this discharge of effluent would add to cumulative effects, which is a particular concern of Grassy Narrows First Nation.

- Expensive and intensive treatment for ammonia, derived from blasting residues, is proposed. However, toxic levels of nitrate and nitrite, that always accompany the ammonia and which can cause eutrophication and other impacts in the Chukuni River and Dixie Creek, are completely ignored.

- Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

- Ultrafiltration may substantially reduce effluent concentrations for those elements not fully

dissolved, mixing-zone size, and cumulative effects. However, there are no details on this ultrafiltration in the reviewed Great Bear documents.

- Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called “sludge”, which can reach “hazardous” and “special” waste levels in some jurisdictions. Thus, treatment sludge requires the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and sediments including soils and benthic ecosystems. All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge that will remain and be managed somewhere in perpetuity.

12. References

Morin, K.A., and N.M. Hutt. 2001. Environmental Geochemistry of Minesite Drainage: Practical Theory and Case Studies, Digital Edition. MDAG Publishing (www.mdag.com), Surrey, British Columbia. ISBN: 0-9682039-1-4.

Morin, K.A., and N.M. Hutt. 1997. Environmental Geochemistry of Minesite Drainage: Practical Theory and Case Studies. MDAG Publishing (www.mdag.com), Surrey, British Columbia. ISBN: 0-9682039-0-6.

Price, W.A. 2009. Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials. Canadian MEND Report 1.20.1, Natural Resources Canada, dated December 2009.

Price, W.A. 1998. Draft Manual for the Prediction of Metal Leaching and Acid Rock Drainage. Issued by the British Columbia Ministry of Energy and Mines.

Price, W.A., and J.C. Errington. 1998. Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia. Issued by the British Columbia Ministry of Energy and Mines.

Price, W.A., K.A. Morin, N.M. Hutt. 1997. Guidelines for the prediction of acid rock drainage and metal leaching for mines in British Columbia: Part II. Recommended procedures for static and kinetic testing. IN: Proceedings of the Fourth International Conference on Acid Rock Drainage, May 31-June 6, Vancouver, Canada, Volume I, p. 15-30.

Ear Falls Family Safety Night

Client Name	Kinross Gold Corporation	Project No:	
Project Name	Great Bear Project		
Meeting Type:	In-Person [Trade Show]	Virtual [0]	Hybrid [0]
Location:	Ear Falls		
Time:	4:00-7:00pm		
Date:	May 16, 2024		
Executive Summary:	Kinross Great Bear staff attended the Ear Falls Family Safety Night to represent Kinross Great Bear and highlight the Project. This presented a valuable opportunity to interact with Ear Falls community members, as well as to promote our current Community Feedback Survey. Overall, the atmosphere was positive and reaction to the Kinross Great Bear Project was positive and enthusiastic. One of the key lines of inquiry was in regards to timelines and future employment opportunities.		
Key Actions:	a. No follow up actions.		

1. Attendance

Attendance by approximately 100+ community members from Ear Falls.

Attended by Gwyneth Carlson, Sr. Ext Rel Specialist, and Molly Munroe, Environmental Summer Student.

2. Agenda and Attachments - NA

3. Key Questions and Overview of Dialogue

    a. Key questions focused on timelines of the Project, location of the Project and future employment opportunities. Some questions raised about our plan for housing,

4. Key Touchpoints
    a. Primarily community members and key stakeholders from Ear Falls.

5. Action Items
    a. No follow up actions.

Dated: May 17, 2024

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

Attention: Minister George Pirie (Minister of Mines) (minister.mines@ontario.ca)
99 Wellesley Street West
Room 5630, Whitney Block
Toronto, Ontario M7A 1W3

Attention: Anjala Puvanathan (Director, Ontario Region) (greatbear@iaac-aeic.gc.ca)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario M5J 1R7

Attention: Aaron MacDonell, Director of Environmental Services (aaron.macdonell@kinross.com)
Mac Potter, External Relations Manager (mac.potter@kinross.com)
Great Bear Resources Ltd. A Kinross Company
104 Howey Street
Red Lake, Ontario P0V 2M0

Dear MINES, IAAC, Kinross and Great Bear Resources:

RE: The Great Bear Gold Mine Project

I wrote to you on March 29 and April 15 to provide initial findings from Dr. Kevin Morin concerning metal leaching and acid rock drainage, water quality and hydrogeology with respect to the Great Bear Gold Project.

Please find enclosed:

- Dr. Morin's response to Kinross Gold's consultant, WSP. He concludes that he remains concerned about the many potential environmental impacts that are not recognized and not anticipated by Kinross Gold and about the many impacts that are recognized but poorly addressed and characterized. His concerns pertain to both the proposed advanced exploration and the proposed mining.

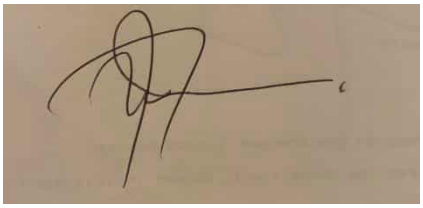
- Dr. Morin's report following his review of the technical documents provided to Grassy Narrows to date: Project Definition; Geochemical Characterization Workplan; Advanced Exploration Program Reclamation Strategy; Program Closure Plan (Draft for Indigenous Review); Hydrogeological Workplan; Surface

Water Quality Workplan; Fugitive Dust Best Management Practices Plan; PTTW Application for Dewatering; Draft Detailed Project Description; Water Treatment during Proposed Exploration and Proposed Mining.

Based on Dr. Morin's export reports, Grassy Narrows is extremely concerned that the project is moving ahead swiftly in the absence of required information and at great risk to the environment, the health, inherent, Treaty and Indigenous rights of Grassy Narrows.

I repeat Grassy Narrows' call to freeze the regulatory process work on this project until full credible information is available and the barriers to Grassy Narrows' meaningful involvement have been resolved. I also repeat Grassy Narrows' position that this project, including the extensive mining of valuable ore that the company is calling "bulk sampling", must be subjected to a rigorous environmental assessment.

Miigwetch,



Joseph B. Fobister, Lead Negotiator of Grassy Narrows Lands Protection Team

CC:

Grassy Narrows Lands Protection Team
Joseph Fobister, Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Supervisor (mike.fobister@googlemail.com)
Dan Mossip-Balkwill, Advisor (dan.mossip.balkwill@gmail.com)
David Sone, Advisor (david.sone@gmail.com)
Jackie Esmonde, Legal Counsel (jesmonde@cavalluzzo.com)

Ontario Ministry of Mines
Susanna Laaksonen-Craig (deputy.mines@ontario.ca) (Deputy Minister, MINES)
Patrick Barnes (patrick.m.barnes@ontario.ca) (MINES Consultation and Aboriginal Treaty Rights Advisor)
Neal Bennett (neal.bennett@ontario.ca) (MINES Acting Regional Manager Thunder Bay Office)
Teri McDonald (teri.mcdonald@ontario.ca) (MINES Indigenous Consultation and Partnerships Branch)

Ontario Ministry of Natural Resources and Forestry
Minister Graydon Smith (minister.mnrf@ontario.ca)
Drew Vanderduim (deputy.mnrf@ontario.ca) (Deputy Minister MNRF)

Ontario Ministry of Indigenous Affairs

Minister Greg Rickford (minister.indigenousaffairs@ontario.ca)
Shawn Batise (shawn.batise@ontario.ca) (Deputy Minister, Ontario Ministry of Indigenous Affairs)
Emily Vassos (Emily.vassos@ontario.ca) (Chief of Staff, Minister's Office, Ontario Ministry of Indigenous Affairs)
Candice Telfer (Candice.telfer@ontario.ca) (Acting Assistant Deputy Minister, Negotiations and Reconciliation Division)

Ontario Ministry of Environment Conservation and Parks
Minister Andrea Khanjin (minister.mecp@ontario.ca)
Serge Imbrogno (serge.imbrogno@ontario.ca) (Deputy Minister)

Crown-Indigenous Relations
Minister Gary Anandasangaree (gary.anandasangaree@rcaanc-cirnac.gc.ca)
Valerie Gideon (valerie.gideon@rcaanc-cirnac.gc.ca) (Deputy Minister)
Rob Wright (rob.wright@rcaanc-cirnac.gc.ca) (Associate Deputy Minister)

Indigenous Services Canada
Minister Patty Hajdu (ministresa-ministeris@sac-isc.gc.ca)
Gina Wilson (gina.wilson@sac-isc.gc.ca) (Deputy Minister)
Michelle Kovacevic (michelle.kovacevic@sac-isc.gc.ca) (Associate Deputy Minister)
Julia Gregory (julia.gregory@sac-isc.gc.ca) (ISC, Policy Analyst; Lands and Economic Development)

Canada - Ministry of Environment and Climate Change
Minister Steven Guilbeault (steven.guilbeault@parl.gc.ca) (Minister of Environment and Climate Change)
Jean-Francois Tremblay (JF.Tremblay@ec.gc.ca) (Deputy Minister)
Lawrence Hanson (Lawrence.Hanson@ec.gc.ca) (Associate Deputy Minister)

Impact Assessment Agency Canada
Natalie Boyd (greatbear@iaac-aeic.gc.ca) (IAAC, Project Manager)
Ian Lindsay (greatbear@iaac-aeic.gc.ca) (IAAC, a/Senior Consultation Analyst)

MINESITE DRAINAGE ASSESSMENT GROUP
(A Division of Morwijk Enterprises Ltd.)

contact@mdag.com
www.MDAG.com
CANADA

BY EMAIL

April 24, 2024
FILE: 5025.01

Grassy Narrows First Nation
c/o Cavalluzzo
474 Bathurst Street, Suite 300,
Toronto, Ontario M5T 2S6
Attn: Grassy Narrows Lands Protection Team

Dear Grassy Narrows Lands Protection Team,

RE: Great Bear Mining Project - Response to Kinross Gold on MDAG Initial Comments of March 27 2024

I have submitted to you two letters in the past about environmental concerns at the Great Bear Project, dated March 27 and April 11. These letters were based on some of my initial findings from some documents that were within my focus on metal leaching and acid rock drainage (ML-ARD), water quality, and hydrogeology. My review is now complete, including more detailed explanations for those earlier, initial comments as well as additional comments and concerns. My full review accompanies this letter of April 23.

Kinross Gold's consultant, WSP, replied to my first letter of March 27 on April 4. WSP sent a table with 18 issues, listed as "MSDAG [sic] Letter - Comments and Rationale" with a corresponding "GBR Response".

Please note that I did not include full "Rationales" with my initial letters because my detailed review was still in progress. Thus, it was not possible for WSP to provide satisfactory responses. My detailed "Rationales" were provided to you only today.

In any case, I explained that there was little reliable and professionally certified information on ML-ARD, water quality, and hydrogeology at this point for the Great Bear Project. Most Great Bear reports included labels like "preliminary", "draft", and "initial", which meant they were not complete, not certified as reliable, and subject to change one or more times in the future. In fact, some information and designs already changed substantially in 2023, as the accompanying review confirms.

Many of WSP's Responses reflected this. For example, the first WSP Response starts with:

> "The geochemical information presented in these reports represent initial draft documents for the Project, based on data collected in 2022 and early 2023 which was developed [sic] qualified professionals."

As I explained previously, my opinion is that preliminary, draft, and initial reports for the Great Bear Project that are not signed and certified by qualified professionals should not be reviewed. They are subject to change, and already some reports issued in 2023 contradicted others. I expect this to continue for at least a few years until final, reliable monitoring data and testwork are completed.

As a result, it is not worthwhile or meaningful to reply to WSP's Responses to my first letter. There are insufficient information and data at this time to debate and clarify many of my concerns and issues. There may or may not be sufficient information and data in future years. Only time will tell.

Therefore, based on the information available at this time for the Great Bear Project, I remain concerned about the many potential environmental impacts that are not recognized and not anticipated by Kinross Gold and about the many impacts that are recognized but poorly addressed and characterized. My concerns pertain to both the proposed advanced exploration and the proposed mining.

Sincerely,

Kevin A. Morin, Ph.D., P.Geo., L.Hydrogeo.
President

Great Bear Mining Project -

Review of ML-ARD and Water Quality Expected during and after Advanced Exploration and Proposed Mining

prepared for:

Grassy Narrows Lands Protection Team
c/o Cavalluzzo LLP
474 Bathurst Street, Suite 300,
Toronto, Ontario M5T 2S6

prepared by:

Kevin A. Morin, Ph.D., P.Geo., L.Hydrogeo.
Minesite Drainage Assessment Group
www.MDAG.com
contact@MDAG.com

April 23, 2024

TABLE OF CONTENTS

Report Summary ii

1. Introduction 1

2. Project Definition Document (December 2022) 4

3. Geochemical Characterization Workplan (January 9, 2023) 10

4. Great Bear Advanced Exploration Program Reclamation Strategy (September 2023) 14

5. Program Closure Plan, Draft for Indigenous Review (November 2023) 19

6. Hydrogeological Workplan (December 21, 2022) 23

7. Surface Water Quality Workplan (December 21, 2022) 24

8. Fugitive Dust Best Management Practices Plan, final draft (September 2023) 25

9. PTTW Application for Dewatering, final draft (October 2023) 26
- 9.1 Main Report 26
- 9.2 Appendix B 28
- 9.3 Appendix C and Its Several Draft Monitoring Programs 31
- 9.4 Appendix D 31
- 9.5 Summary 31

10. Draft (?) Detailed Project Description (November 2023) 33
- 10.1 Section C.3.3 Proposed Mine Facilities and Infrastructure 33
- 10.2 Section C.3.4 Preliminary List of Mine Activities 37
- 10.3 Section C.3.5 Preliminary Decommission Approach 37
- 10.4 Section F Potential Effects of The Project 39
- 10.5 Summary 41

11. Water Treatment during Proposed Exploration and Proposed Mining 44

12. References 48

Report Summary

This MDAG review has focussed on the potential for contamination of water by metal leaching and acid rock drainage (ML-ARD) on, under, and around the Great Bear Project during proposed exploration and proposed mining.

It is important to note that some report titles for Great Bear contain the words "draft", "preliminary" or "initial", meaning newer drafts and revised final versions from Kinross Gold may or may not change from what has been reviewed here. Also, the first cover page for the Detailed Project Description of November 2023 says "draft" while the second WSP cover page does not. Thus, I have found that the reviewed documents for the Great Bear Project as a whole is a confusing mess of shifting, changing, contradicted, and assumed details, with none signed and certified by qualified professionals.

Also, the contents of some documents are password protected. This protected text and information cannot be extracted for detailed evaluation, quotation, review, and comment now or in the future. Thus, they preclude detailed reviews by Grassy Narrows First Nation, which is what Kinross Gold seeks.

Each section of this MDAG review looked in detail at a particular report on proposed exploration and/or proposed mining. The following paragraphs are the summaries taken from each section, and each section should be consulted for details and context.

Section 2 of this MDAG Review

For the password-protected Project Definition Document of December 2022, sufficient details and omissions are present for me to be very concerned about ML-ARD and water-quality degradation during and after the relatively large, at-least-four-years-long proposed Advanced Exploration that would essentially be a first phase of mining at Great Bear. These concerns carry over to the proposed mining.

Although this document is not marked as "draft" and is thus final, it contains many details contradicted by later documents as explained in later sections of this MDAG review. Thus, it is not possible to know exactly what is proposed for Advanced Exploration and, in turn, to know reliably how bad the environmental problems and impacts could be.

Section 3 of this MDAG Review

Problems detected in the January 2023 Geochemical Characterization Workplan include:

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross wants to proceed with

Advanced Exploration.

- All that is available now is 96 rock core analyses according to the September 2023 Reclamation Summary (see below), which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". In any case, the 96 samples were not collected and analyzed as required under the Ontario Mining Act (see next bullet). Thus, Kinross Gold and its consultants, WSP, are guessing how bad the contamination will be, but admit that some of it will be bad, and are likely years away from completing the ML-ARD work required under Regulation 240/00 of the Ontario Mining Act (Mine Development and Closure under Part VII Of the Act).

- The stated approach and methodology used for Advanced Exploration is "based on the requirements" of two British Columbia documents from 1997-1998 (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997). In reality, the Ontario Mining Act says the approach and methodology must be based on the much more detailed 2009 federal Prediction Manual, not just as "guidance" as Great Bear has done. Thus, the work for Advanced Exploration to date does not meet the Ontario Mining Act through Regulation 240/00 and does not meet the 2009 federal ML-ARD Prediction Manual (Price, 2009).

- Even if this Geochemical Characterization Workplan was applicable and consistent with the 2009 federal ML-ARD Prediction Manual, such work requires at least 2-3 years to obtain all required information and interpretations. Therefore, perhaps in 2025 or some year after, there might be sufficient ML-ARD for Advanced Exploration, but not any time soon.

Section 4 of this MDAG Review

Concerns on the Reclamation Strategy from September 2023 include the following.

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross Gold wants to proceed with Advanced Exploration.

- All that is available now is 96 core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". Also, 30 samples of overburden, which is intended to be left on surface and used for reclamation, were collected yet the results are not reported although there is ~50% probability that the overburden will release ML-ARD and thus be toxic. Kinross Gold and WSP are guessing how bad the contamination will be, but admit that some of it will be bad. They are likely years away from completing the ML-ARD work required under the Ontario Mining Act and Regulation 240/00, because the work for Great Bear was not initially consistent with Regulation 240/00. In part, this is because the 2009 federal ML-ARD Prediction Manual (Price, 2009) was not recognized or followed as required. Even the

definitions of ML-ARD acronyms used for the Great Bear Project are not correct according to the federal Manual, which is additional evidence the Prediction Manual is not being followed.

- The bad ML-ARD rock appears to be associated with "rapid acid generation" according to the Program Closure Plan (reviewed in the next section below). This is an incorrect explanation of the phenomenon, but still shows that the bad water quality will start coming out of the disturbed rock, including the underground mine walls, very quickly after initial disturbance. Informally, this is called "lag time" to ML-ARD, but most of the ML-ARD work has not yet been done to quantitatively estimate the lag time beyond "rapid". This contaminating rock will be stored on surface and possibly only later, likely after the lag time, some might be taken underground. When this rock contacts water underground as the workings partially flood and submerge, it will quickly release more contamination. This means the underground water flowing into the surrounding groundwater system, and the surface overflow if any, would have to be monitored and likely be treated for many years or in perpetuity after Advanced Exploration.

Section 5 of this MDAG Review

For the password-protected Program Closure Plan, Draft for Indigenous Review from November 2023, the following concerns were noted.

- In November 2023, the volume of overburden has approximately doubled from previous documents without an explanation. Because overburden generally has a 50% probability of releasing ML-ARD and contaminating water, overburden represents a major but unexamined threat to water quality on, around, and beneath the Great Bear exploration site.

- "Preliminary" criteria are provided for separating "PAG" and "NPAG" rock and for "NML" rock. However, these acronyms are not used in an accurate manner that is consistent with the 2009 federal Prediction Manual (Price, 2009) required by Regulation 240/00. The preliminary criteria are not rational based on ML-ARD science unless justified with detailed and intensive site-specific studies, which have not yet been completed and professionally certified for the Great Bear Project.

- The potential for ML-ARD after closure is presented all the way to detailed predictions of aqueous concentrations in mg/L for on-site water and effluent to the environment, but only after closure and not during operations when the water quality would be reasonably worse. However, these predictions are not explained in any detail, are not justified, appear anomalous, and are not certified by a qualified professional. Some predictions are actually pre-exploration baseline that are erroneously assumed to be re-established immediately at closure. Furthermore, these predictions are missing more than a dozen potential contaminants.

- The "PAG" rock, which would likely create the highest contaminant concentrations, is not included

in this Program Closure Plan, presumably because this "PAG" rock will be backfilled underground. However, when placed underground, this "PAG" rock will likely continue to release severe ML-ARD until submerged, at which point a relatively huge amount of accumulated contamination would be released into the underground water. After the mine is refilled to equilibrium, and the minewater begins flowing into the surrounding groundwater system and through the more than 500 km of permeable drillholes to the environment, it will contaminate large surrounding areas. This major risk to water quality and the environment is not even mentioned in this Closure Plan, which is a major omission.

- The backfilling of "PAG" rock at closure is the largest individual cost item for closure totalling around $10 million. However, this reflects the currently minimum volume based on preliminary, unreliable information. In the worst case, which was assumed in the Great Bear Project Definition and still not disproven here, total closure costs could exceed $20 million.

Section 6 of this MDAG Review

In the Hydrogeological Workplan from December 2022, there is a major omission that would preclude a reliable and comprehensive assessment of current baseline hydrogeologic conditions and of future impacts from proposed mining. The groundwater monitoring network does not extend far enough to the west and northwest, beyond the proposed western portion of the Tailings Management Facility.

Section 7 of this MDAG Review

In the Surface Water Quality Workplan from December 2022, there are insufficient information and details to determine if appropriate work is planned and conducted. This is because important details are listed only as "including". For example, major potential contaminants like manganese and thallium are not specifically listed, but perhaps they are implicitly included? There is no way to know.

Section 8 of this MDAG Review

Based on the final-draft Fugitive Dust Best Management Practices Plan of September 2023 for Advanced Exploration, this work is unacceptable because it grossly underestimates the potential impacts from ML-ARD geochemical contamination of soil, vegetation, water, and biota by dust. This work assumes the on-site sources of dust "would be similar in concentration to the background rock". This is wrong and ignores the ongoing ML-ARD assessment of ore, rock, and overburden.

Section 9 of this MDAG Review

In the PTTW (Permit To Take Water) Application for Dewatering, Final Draft, and its several

important appendices from October 2023, there are alarming errors and ambiguities that should preclude approval of PTTW. These should also trigger a detailed impact assessment, which this PTTW report conversely says is not needed for Advanced Exploration at Great Bear.

In the introduction to the main PTTW report, the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning because the actual total water withdrawal from the local groundwater/surface-water balance would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these flows are unrealistically low as explained here.

The errors begin with groundwater modelling that is based on long-term "steady state conditions" after the mine is "fully developed" and dewatered, and not on the correct, higher-inflow "transient conditions". Thus, inflow, pumping, and dewatering are significantly underestimated by the groundwater model and the PTTW Application. Additionally, there are problems with unrealistically low estimated effects on partial dewatering of Dixie Creek and other creeks and rivers. For example, simulated groundwater levels are around 9 m higher than measured around the mine and Dixie Creek, which artificially and incorrectly prevent additional dewatering of Dixie Creek.

Groundwater levels are shown to be drawn down during dewatering to a maximum of only 36 m even though the dewatered workings will be 600 m deep. This reflects (1) nearly fully dewatering of the shallow overburden and (2) the lack of admission on the likely huge drawdown and much larger "Zone of Influence" in the rock beneath the overburden.

Baseflows into Dixie Creek and other waterbodies can be critical to aquatic, benthic, and terrestrial ecosystems because of groundwater's typically different water quality and temperature compared to water already flowing at the surface. This becomes more critical during droughts when baseflow may be the main source of surface flows. The PTTW Application ignores the fact that more than 34 to 55% of existing baseflow would be lost during Advanced Exploration. It instead points out that the loss to groundwater would be only 2.4% and less of total flow depending on the chosen surface-flow statistic.

Overburden is routinely ignored in this PTTW document and its appendices, despite the proposed hundreds of thousands of tonnes of overburden likely having at least some ML-ARD potential and capacity to degrade water quality. In fact, some underground dewatering would be sprayed on the overburden for dust suppression, which in turn could lead to contaminated runoff across and off the site.

Section 10 of this MDAG Review

In the perhaps-draft Detailed Project Description of November 2023, the first cover page by Kinross says this document is "draft", but the second cover page by the authors, WSP, does not say "draft" so perhaps this is or is not the final document. If so, it has not been signed by qualified professionals and thus should be rejected.

In any case, there are so many problems, misleading statements, errors and omission concerning ML-ARD, water quality, and environmental impacts that they cannot all be summarized well here. These problems include the following.

- There is a false statement that there will be no sources of mercury from the ore processing when in fact the tailings and concentrate from the process will contain mercury. The processing could even cause mercury and other elements to leach more quickly and become more mobile.

- Contrary to the impression given by this Detailed Project Description, cyanide destruction is not perfect and can simply mask the cyanide temporarily in the environment, but the important testwork to determine this has not yet been done for the Great Bear Project.

- Significant impacts on water quality can arise from seemingly benign proposed activities like paste backfill of tailings into the underground mine and dewatered filter-cake tailings. However, the potentials for serious impacts are not recognized or not even mentioned in this perhaps-draft Great Bear document that can supposedly be used to determine what impacts could occur.

- Storm events and equipment upsets can lead to relatively large variations and unexpected impacts, day-to-day or even hour-to-hour, during proposed exploration and proposed mining. Instead, these Great Bear documents use averages like monthly which incorrectly assume flows will be the same every day of a month which is far from reality. Environmental impacts and spills can also be caused by large variations, as well as longer-term averages, so the environmental risks of proposed exploration and proposed mining at Great Bear remain mostly unknown and not identified.

- Nonsense pseudo-scientific statements are used, like the aggregate required to build the project would be “nonreactive mine rock and overburden” which does not exist. This clearly shows that experienced and qualified professionals were not included in the writing of this perhaps-draft Detailed Project Description. If there is a true commitment to “nonreactive mine rock and overburden” which does not exist, then the Great Bear Project stops now.

- There is a lack of ML-ARD assessments for some site components like aggregate.

- There is a prevalent but likely false belief that “NPAG”rock will have little to no impacts on ML-ARD, water quality, and the environment. However, this has not been proven for the Great Bear Project and is likely wrong based on other minesites around Canada. “NPAG” rock can actually generate more acid than “PAG” rock and could still release seriously contaminated levels of many metals and other elements at near-neutral pH.

- The financial assurance to ensure proper and fully paid closure of the proposed Great Bear Project is grossly underestimated based on existing information. Furthermore, the financial assurance should also include contingencies for costs of early or premature closure, but it does not.

- There are likely devastating, expensive, and unrecognized ML-ARD consequences on water quality from the proposed relocation of "PAG" rock into the underground workings after operation.

- The ongoing, unproven, and likely wrong, belief continues that overburden would be environmentally benign, can be used across the site for reclamation, and can be sprayed with water to control dusting when it could instead create contaminating water around, below, and beyond the Great Bear site.

- There are unfounded beliefs that dewatering during exploration and mining would have minimal effects on the local and regional water balance, and would not significantly dewater surface creeks and lakes including their environmentally important baseflow. These false beliefs are based on flawed groundwater modelling for the Great Bear Project explained earlier in this MDAG review.

- There is a false belief that dust blown off the site during proposed exploration and proposed mining and into the surrounding environment, vegetation, soil, water, and aquatic ecosystems is benign at "background" levels.

- A false belief is stated that only elevated and toxic ammonia, and no other contaminating nitrogen species from explosives that consistently accompany the ammonia, will appear in mine water during proposed exploration and proposed mining.

- There is an unsupported and likely substantially underestimated statement that the mine walls in the pits and underground workings "may potentially contribute minor quantities of metals to the mine water" instead of the more typical significant quantities of metals seen at many other minesites around Canada. This is taken as far as the likely ludicrous statement that there would be "Potential for creation of fish habitat in new pit lakes, expected to be re-connected [sic] to the Dixie Creek system".

- There is no recognition of the implications, costs, and impacts of storing months of contaminated mine water on the site should one or more "unexpected" yet currently predictable inorganic contaminants and ML-ARD occur on the site water during and after proposed exploration or proposed mining.

Section 11 of this MDAG Review

In summary for water treatment, Great Bear documents invoke water treatment as the major process that would prevent or minimize environmental impacts of proposed exploration and proposed mining. This is not literally true, because there will be fugitive contaminated water and contaminated dust leaving the site, but this fugitive contamination is ignored or not recognized in many reviewed Great Bear documents.

In any case, water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts, and thus requires intensive study and characterization.

However, at this time, water treatment for proposed exploration and proposed mining is ambiguous and contradictory among the documents. This should be expected because the input flows and input contaminant concentrations (ML-ARD) will not be known reliably for at least a few years. Nevertheless, there are serious concerns about water treatment now including the following.

- Kinross Gold does not expect to treat site water to non-toxic levels. Instead, treatment would only be down to still-toxic levels based on the Metal and Diamond Mine Effluent Regulations (MDMER). Thus, Kinross Gold intends to rely on significant dilution of its contaminated effluent within a "mixing zone" in the Chukuni River. Such a mixing zone would include zones of significant toxicity and would require formal authorization from Fisheries and Oceans Canada. In any case, this discharge of effluent would add to cumulative effects, which is a particular concern of Grassy Narrows First Nation.

- Expensive and intensive treatment for ammonia, derived from blasting residues, is proposed. However, toxic levels of nitrate and nitrite, that always accompany the ammonia and which can cause eutrophication and other impacts in the Chukuni River and Dixie Creek, are completely ignored.

- Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

- Ultrafiltration may substantially reduce effluent concentrations of elements not fully dissolved, mixing-zone size, and cumulative effects. However, there are no details on this ultrafiltration in the reviewed Great Bear documents.

- Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called "sludge", which can reach "hazardous" and "special" waste levels in some jurisdictions. Thus, treatment sludge requires the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and sediments including soils and benthic ecosystems. All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge that will remain and be managed somewhere in perpetuity.

1. Introduction

Metal leaching (ML) and acid rock drainage (ARD) are often water-chemistry and water-quality issues for minesites (e.g., Morin and Hutt, 1997 and 2001). As a result, the accurate prediction and control of ML-ARD at mining projects and proposed minesites in Ontario are high priorities of the provincial and federal governments.

This is explained in Part 7 (*Metal Leaching and Acid Rock Drainage Requirements*) of Ontario Regulation 240/00 (*Advanced Exploration, Mine Development and Closure under Part VII of the Act*), and in the federal ML-ARD Prediction Manual (Price, 2009). Section 57(1) of Regulation 240/00 states,

> "A program shall be undertaken to sample all materials remaining on the site that have been excavated, exposed or otherwise disturbed by mining activities, including but not limited to,
>
> (a) drill core;
> (b) metallurgical samples;
> (c) pit walls;
> (d) existing waste rock, ore, concentrate and *overburden* [MDAG emphasis] piles;
> (e) construction rock; and
> (f) tailings."

For detailed guidance, Ontario Regulation 240/00 states,

> "The sampling program shall be conducted by a person who is qualified in Ontario as a professional geoscientist, professional agrologist or professional engineer in accordance with a report prepared by William A. Price on behalf of the Mine Environment Neutral Drainage (MEND) program, entitled 'Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials', MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..." [Price, 2009]

ARD is caused by oxidation of sulphide minerals, which are found at the Great Bear Project, particularly iron-bearing sulphides like pyrite and pyrrhotite. Whether sulphide minerals are present or not, weathering can still lead to accelerated metal leaching (ML). For example, the simple dissolution of near-neutral or alkaline carbonate minerals can release metals like manganese and zinc into the water. Thus, ARD is a subset of the more generic ML.

In practice, ML is not limited to true metals in the Periodic Table, but to all elements that could become potential environmental contaminants. For example, sulphate and nitrate are regularly included in ML assessments. Sulphate can reportedly increase the methylation of mercury and other elements like cadmium and arsenic.

Therefore, ML-ARD is an acronym representing the full spectrum of inorganic water chemistry and quality on, beneath, and around a minesite. Put simply, ML-ARD potential is synonymous with the potential for inorganic water contamination and the degradation of on-site water quality.

Kinross Gold Corporation (Kinross Gold) proposes Advanced Exploration and later mining at its Great Bear Gold Mining Project in the Red Lake mining district of Ontario, approximately 25 km southeast of the Town of Red Lake. The Great Bear Project is located in the Interim Area of Interest for Mining of Asubpeeschoseewagong Netum Anishinabek (ANA), which Kinross documents also name as Grassy Narrows First Nation (GNFN). The Great Bear Project is also in an area where Grassy Narrows First Nation people use the land and water to practice their Indigenous way of life. It is located upstream of the English River which flows directly to the Grassy Narrows village site and Grassy Narrows' most important fishing grounds.

Through Cavalluzzo LLP, the Grassy Narrows Lands Protection Team has asked me, Dr. Kevin Morin of the Minesite Drainage Assessment Group (MDAG), to review and comment on the proposed exploration and proposed mining. This MDAG review focuses on predicted surficial and subsurface ML-ARD and water quality on and around the Great Bear Project.

My qualifications for making the comments in this review document include the following. I have been assessing water contamination at minesites by metal leaching and acid rock drainage (ML-ARD) for 46 years. I have done this at several hundreds of exploration, operating, and closed mining-related sites on all continents except Antarctica, from north of the Arctic Circle to south of the Tropic of Capricorn, in biogeoclimatic zones ranging from virtually no annual precipitation up to a rare daily rainfall of one meter. I earned my Doctor of Philosophy degree in contaminant hydrogeology from the University of Waterloo, where my supervisor was the renowned Dr. John Cherry along with a thesis committee including Drs. Emil Frind (a well-known groundwater modeller) and Eric Reardon (a well-known geochemist). To date, I have authored or co-authored 99 published papers and presentations, five books, and 80 online case studies. I have been and am a peer reviewer for a number of international journals related to ML-ARD and environmental contamination. More details can be found at www.MDAG.com.

The Kinross documents reviewed in the following sections are listed below. Again, the main focus is on the potential for contamination of water by ML-ARD on, under, and around the Great Bear Project during proposed exploration and proposed mining.

- Project Definition Document (December 2022)
- Updated Site Plan
- PTTW Application for Dewatering, final draft (October 2023)
- Fugitive Dust Best Management Practices Plan, final draft (September 2023)
- Reclamation Strategy (September 5, 2023)
- Program Closure Plan, Draft For Indigenous Review (November 2023)
- Surface Water Quality Workplan (December 21, 2022)
- Hydrogeological Workplan (December 21, 2022)
- Geochemical Characterization Workplan (January 9, 2023)
- Preliminary Impact Assessment Methodology, draft (May 31, 2023)
- Preliminary Listing of Potential Valued Components for the Great Bear Project (May 31, 2023)
- Initial Project Description (June 1, 2023)
- Detailed Project Description (November 2023)

- PowerPoint Presentation by Kinross to ANA (November 10, 2023)
- ANA IPCA Map

It is important to note that some report titles above contain the words “draft”, “preliminary” or “initial”, meaning newer drafts and revised final versions from Kinross Gold may or may not change from what has been reviewed here.

Also, the contents of some documents above are password protected. This protected text and information cannot be extracted for detailed evaluation, quotation, review, and comment now or in the future. This precludes the detailed review by Grassy Narrows First Nation that Kinross Gold seeks. I strongly recommend that unlocked versions of all Kinross documents be obtained and kept by Cavalluzzo LLP and the Grassy Narrows First Nation for future reference and usage.

2. Project Definition Document (December 2022)

The Great Bear Resources Great Bear Advanced Exploration Project Project Definition Document, dated December 2022 by WSP E&I Canada Limited (WSP), is a password-protected document from which its content cannot be extracted or copied for detailed evaluation and reinterpretation.

In the Preface of this document, WSP states,

> "The Project as described in this document is subject to change as engineering progresses, in response to feedback from government agencies, Indigenous communities and stakeholders, as well as constraints not currently known, that are identified by ongoing environmental baseline and engineering works, and Indigenous consultation and engagement."

No new or updated Project Definition could be located and thus this version from December 2022 is reviewed here from the perspective of ML-ARD and potential water contamination.

Section 1.3 explains the objective of the proposed Advanced Exploration and its key activities:

> "The objective of this Project is to obtain additional information on the known mineralized zones (LP Fault, Limb Zone and Hinge Zone; Figure 1-3) through underground drilling, and to extract a bulk ore sample of up to 60,000 tonne (t) by underground mining methods. Extraction of a bulk sample allows the testing of representative areas of the mineralization off site, in order to gain a better understanding of the geology of the mineralized zones including, grade, structural controls on the mineralization, continuity, mining dilution, optical sorter performance and metallurgical recoveries. This information will support the assessment and development of a viable commercial production scenario.
>
> "The Project will also support future engineering designs by improving knowledge of key factors (ground conditions, water inflows, costs, labor, etc.). It will also improve the knowledge base to increase the confidence in environmental predictions associated with the proposed underground mine and to a lesser extent open pit mine.
>
> "Key Project activities are provided below:
> - Establish portal(s) and decline(s) to provide access underground in order to establish required underground workings
> - Develop drill platforms off the decline to facilitate efficient underground drilling of the known mineralized zones at depth
> - Extract up to 60,000 t of ore (bulk) sample from test stopes and drifts in the mineralized zones
> - Transport the ore to surface along the decline(s) by truck for crushing, sorting and sampling; samples will transported off site by highway truck for test processing
> - Mine rock that must be removed from the underground workings in order to provide access to the ore will be brought to surface by truck and will be stored in stockpile(s) unless appropriate for use as a construction material on site
> - Additional activities on surface and underground, such as environmental management."

These quotations raise several concerns as explained next.

Section 1.4 "Consultation to Date" with First Nations mentions Wabauskang First Nation (WFN) and Lac Seul First Nation (LSFN) in several places including an Exploration Accommodation Agreement. In contrast, Grassy Narrows First Nation (GNFN) in mentioned only twice, including where the Ontario Ministry of Mines instructed Kinross Gold to include GNFN in notifications of significant updates on exploration works. Later, Section 7.4.1 adds,

> "On September 29, 2022, the Company communicated its interest in an introductory meeting to GNFN, who respectfully declined the offer."

Section 1.5 on "Involvement of Federal Agencies" in this Project Definition starts by saying "Not currently applicable". Then it clarifies:

> "No Federal government departments or agencies are expected to grant Federal land or providing financial support to the project (include indirect funding support, such as for infrastructure and training). There is the potential that Federal departments may be required to provide environmental approvals or authorizations (see Section 7.3.1)."

Federal agencies like Fisheries and Oceans Canada will very likely be involved in authorizations as the Great Bear Project intends to discharge toxic water including from its advanced-exploration treatment plant into fish-bearing waters and fish habitat as "mixing zones" requiring authorizations. This is discussed further in Section 11 of this MDAG review.

Section 5.1.1 on Existing / Previous Development, Operations and Facilities says:

> "The first exploration work documented by Geology Ontario on the Property dates from 1944. Prior to acquisition by Great Bear Resources Ltd. in 2017, 176 diamond drillholes had been completed totalling 32,602.8 metres (m).... As of October 2022, there has been over 500,000 m of diamond drilling on the Property."

For understanding how groundwater might move during and after proposed Advanced Exploration, these hundreds of drillholes more than 500 km in total length create very permeable pathways for subsurface water to travel long distances quickly, in violation of normal hydrogeologic principles like hydraulic gradients and hydraulic conductivities. This is not acknowledged in other Great Bear documents, as explained in sections of this MDAG review such as Sections 6 and 9.2.

Section 5.1.3 on Geology and Mineralogy says:

> "The Property lies locally within a regional northwest-southeast trending belt of metavolcanic and metasedimentary rocks, bound by intrusive batholiths (see Figure 5-1). The Project is targeting gold mineralization, currently identified within three mineralized zones (see Figure 1-3):
>
> - LP Fault Zone, disseminated gold within high strain
> - Limb Zone (previously known as the Dixie Limb), silica-sulphide replacement
> - Hinge Zone, quartz veining."

The 2009 federal ML-ARD Prediction Manual (Price, 2009) shows that the ML-ARD and potential contamination from each of these zones requires separate ML-ARD evaluations. However, the proposed underground drifts are from a limited area of the ore zones, contrary to a statement that Advanced Exploration is needed to check "the continuity of underground access gold deposits" (see below).

Section 5.1.4 on Geochemical and Geotechnical Considerations states:

> "Geochemical characterization work has been initiated in order to support potential future development, including meeting the requirements of the Mine Rehabilitation Code for a future Advanced Exploration Closure Plan. Ongoing work include static testing (acid base accounting, short-term leaching), mineralogy and metal content. Humidity cells and rain barrel tests are also proposed. The conservative [worst-case] assumption pending results of the comprehensive testing program, is that ore and mine rock is potentially acid generating. This assumption will be amended on receipt of the pending test results and further assessment."

This worst-case assumption (incorrectly stated as "potentially acid generating" in comparison to the federal ML-ARD Prediction Manual) that all ore and mine rock will release ML-ARD could still be the case now, despite recent statements to the contrary (see the sections below in this review). This is because important ML-ARD work has not been completed and then certified by a qualified professional.

Section 5.1.4 also describes the overburden at the Project, which requires ML-ARD assessment equal to those of waste rock and ore according to the federal ML-ARD Prediction Manual and Ontario Regulation 240/00.

> "At the northwest portion of the Property, surficial soils are glaciofluvial in origin, consisting of sands and gravels. In the central portion of the Property, the surficial soils are described as deep-water deposits comprised of laminated to varved clay, silt and fine sand (Natural Resources Canada, 1996). Based on current exploration drilling information, overburden thickness at the Property is expected to range between 0 to 40 m. There are limited bedrock exposures within the Project area. Overburden encountered to date is a mix of sand, gravel and clay; however zones of soft sensitive clays may be encountered. An extensive geotechnical drilling program is currently underway on the Property to further investigate these and other aspects."

Section 5.1.5 on Proposed Mining Activities contains many important details such as:

> "There is no production mining proposed for the site." [MDAG Note: This appears to be a play on words because significant mining for several years is in fact proposed and Section 5.1.5 is specifically entitled "Proposed Mining Activities"; see my comments below on Section 5.1.8]. This Project includes use of underground mining methods to obtain a bulk sample of up to 60,000 t. The work is to be initiated in 2023, pending consultation, regulatory approvals and a corporate decision to proceed."

Kinross Gold further explained details of the proposed Advanced Exploration in Section 5.1.5:

> "The goal of the advanced exploration program (and ongoing exploration drilling from surface), is to collect additional information to support a decision on whether to proceed to develop a mine and to support engineering design. The advanced exploration bulk ore sample will be trucked off site over the existing Provincial road network to an existing mineral testing facility. No onsite processing is proposed.
>
> "GBR proposes to collar one or two portals from surface (approximately 6 m by 6 m) and to develop associated decline ramp(s) of approximately the same dimension. Secondary

egress and ventilation may be provided through a raise. The ramp is projected to extend to a vertical depth of approximately 600 m below surface and length of approximately 9,000 m during the Project. A preliminary long-section and plan view of the advanced exploration underground workings showing the preferred portal and raise location is provided in Figure 5-2 and Figure 5-3. The ramp is designed to provide access to the investigation areas, promote efficient truck haulage and reduce ventilation losses. Personnel will access the underground workings by means of the ramp. A shaft is not proposed for the Project.

"A bulk sample will be extracted from underground workings developed from the ramp(s) using conventional drilling and blasting using explosives, from several locations within the deposit. Blasting is proposed to use prepackaged and bulk explosive products....

"The objective of this Project is to obtain additional information on the known mineralized zones (LP Fault, Limb Zone and Hinge Zone; see Figure 1-3) through underground drilling and extraction of a bulk ore sample. Extraction of bulk sample allows testing of representative areas of the mineralization in order to gain a better understanding of the geology of the mineralized zones including, grade, structural controls on the mineralization, continuity, mining dilution, optical sorter performance, crushing and grinding properties and metallurgical recoveries to support development of a viable commercial production scenario.

"Industry-specific factors that were considered by GBR when establishing the size of the bulk sample include as follows:

- The proposed bulk sample is approximately 1% of the currently defined mineralized envelope and is consistent with other Ontario advanced exploration projects, such as the Timmins West Project (100,000 t), Sugar Zone Project (70,000 t) and Upper Beaver Project (60,000 t)
- Representative bulk samples extracted using realistic mining methods that help to prove the continuity of underground access gold deposits are very important to potential financiers
- National Instrument 43-101 resource definition and economic modeling standards are becoming more stringent to satisfy stricter due diligence standards imposed by industry and the investment community, often requiring bulk samples to validate and refine resource models prior to production decisions."

The problem with these details is that the three reasons given by Kinross Gold do not justify the 60,000 t bulk sample nor the proposed locations for the removal of the bulk sample. For example, the figure shows that most of the bulk sample will be taken from two laterally-limited areas. As a result, most of the ore from northwest to southeast will not be sampled. This is not consistent with proving "the continuity of underground access gold deposits".

Section 5.1.8 on Project Duration and Rate of Mining shows that Underground Development will take place across more than four years "on a continuous (24-hour) basis" and the Bulk Sample will be collected across roughly 2.5 years. These details plus the two 6x6 m portals show this is not typical Advanced Exploration to determine if future mining might be justified, but this is the first phase of mining.

Section 5.3.8 Buildings and Large Facilities includes Table 5.2 "Primary Buildings and Facilities on Surface". "Mine Rock Stockpiles (2)" has an approximate scale of 1,000,000 t, although it is not clear on whether this is maximum capacity or expected capacity. This is only clarified later under Section 5.4.3 (see below) which is the only description of the volume of disturbed waste rock (1,000,000 t) left on site simply to obtain 60,000 t of ore (a ratio of 17:1). This implies a large percentage of waste rock will be mined during Advanced Exploration, which further supports the view that Advanced Exploration would be the first phase of mining.

Remarkably, the various ponds listed in Table 5.2 are only described as lateral areas and do not provide depths and volumes, precluding a discussion of mass balances and spills due to extreme weather events and failures of the treatment plant. Also, the total catchment of this proposed exploration site is not provided despite all its runoff and infiltration requiring routine monitoring and treatment as needed. These are serious omissions. These omissions continue in the perhaps-draft Detailed Project Description, reviewed in Section 10 below.

Despite 60,000 t of ore being mentioned many times in this Project Definition, Section 5.4.3 "Stockpiles" is the only section of this Project Definition that mentions the substantially greater amount of waste rock with ML-ARD potential:

> "It is estimated that a total quantity of approximately 1,000,000 t of mine rock will be generated and stockpiled during the Project."

Additionally:

> "A stockpile of up to 100,000 m^3 [of overburden] is proposed", which likely means about an additional 200,000 t of disturbed overburden.

Notably, less than a year later, documents (see the later sections of this MDAG review below) have increased the overburden to ~400,000 t with no clear explanation for it.

Overburden stockpiles at minesites around Canada have released significant ML-ARD, which is why they are specifically mentioned and referenced through the Ontario Mining Act, but this Project Definition fails to recognize this. Later Kinross Gold documents fail to show the overburden stockpile and fail to show its runoff reporting to ML-ARD treatment (e.g., the undated "AEX Site Plan - Updated.pdf" on which overburden is called "topsoil"). For example, "Memo - Reclamation Strategy - Sept 5 2023.pdf" says,

> "Runoff from the overburden stockpiles (will be monitored and treated to manage suspended solids as required and discharged)".

The undated "AEX Site Plan - Updated.pdf" does not show this. This is one of many glaring contradictions and errors among the Great Bear documents reviewed here.

The understanding of groundwater at this Project is incomplete or contradictory. Section 6.25. Says:

> "The bedrock is generally tight with some potential for limited groundwater flow in the upper fractured bedrock and a few deep structures."

However, a figure in Section 5.5.2 shows groundwater as the only source of inflowing water to the underground workings. Thus, Kinross is saying groundwater inflow is "limited" but also is the only source of this water that has to be actively pumped out of the mine. This escalates to serious errors in groundwater modelling explained in Section 9.2 below that incorrectly predicts relatively low groundwater inflow and relatively little dewatering of surface creeks and lakes.

Section 6.2.6 Air Emission Information has an important omission concerning ML-ARD, environmental impacts, and cumulative effects. This section simply says,

> "A meteorological station has been established on the site, and baseline air quality and sound data is being collected. Based on a review of current Project, air emissions are anticipated to be limited and no offsite impacts are predicted. A management plan will be established to mitigated dust from materials movement and traffic on gravel roads."

However, hundreds of thousands of tonnes of blasted waste rock plus disturbed overburden will remain on site in piles up to 30 m high, likely in perpetuity after Advanced Exploration. This contaminated, blasted, and disturbed materials can release ML-ARD contaminated dust that can be carried into the surrounding environment where it can affect and degrade water quality, soil quality, vegetation, microbes, fish, and animals. As explained in Section 8 of this MDAG review, this invalidates the fugitive dust study for the Great Bear Project.

In summary of this password-protected Project Definition Document of December 2022, sufficient details and omissions are present to be very concerned about ML-ARD and water-quality degradation during and after the relatively large, at-least-four-years-long proposed Advanced Exploration that would be essentially a first phase of mining at Great Bear. These concerns carry over to the proposed mining. Although this document is not marked as "draft" and is thus final, it contains many details contradicted by later documents as explained in later sections of this MDAG review. Thus, it is not possible to know exactly what is proposed for Advanced Exploration and thus to know reliably how bad the environmental problems and impacts could be.

3. Geochemical Characterization Workplan (January 9, 2023)

This very short, three-page summary of ML-ARD "geochemical characterization", apparently issued in January 2023 by WSP, does not provide much information to review and comment on since it is only a "Workplan". However, later documents show this Workplan was not followed.

Under "Purpose of the 2023 Program", it says:

> "Samples that have been or will be tested as part of the geochemistry program include drill core (representing mine rock), overburden, and synthetic tailings generated from metallurgical test programs conducted in the laboratory. Related water quality modelling will be undertaken in 2023, focusing on the proposed Advanced Exploration (AEX) phase. Additional water quality modelling, representing the overall Project, will be undertaken at a later date."

As explained below, this Workplan is not sufficiently thorough and complete under the 2009 federal ML-ARD Prediction Manual (Price, 2009) to justify water-quality modelling and its conclusions. In any case, it is now April 2024 and no verified modelling results from 2023 have been found.

Under "Mine Rock Static Testing", this Workplan states,

> "A mine rock characterization program was initiated in 2022. A total of approximately 300 samples of drill core were collected for this purpose as part of field work in 2022. Drill core samples were obtained from a variety of locations and depths around the deposit, including rock in the vicinity of the proposed open pit and underground developments, along with the proposed AEX volume. Samples of all major rock types were collected. The purpose of this work is to evaluate the ML/ARD potential of the rock and help determine how mine rock may need to be managed.... Testwork is underway and results will be available in the first quarter (Q1) of 2023."

However, nine months later in September 2023, the Reclamation Strategy (see the next section of this MDAG review) mentions only 96 samples that are only "proximal" and thus not necessarily representative of rock to be removed for Advanced Exploration or proposed mining. Perhaps the other 200 samples are not relevant for Advanced Exploration and proposed mining, but then because they are "proximal" it is possible that the 96 samples are not relevant either.

Under "Mine Rock Static Testing", it says

> "All samples will be tested for Acid Base Accounting (ABA) parameters (that includes paste pH, sulphur content and speciation, and Neutralization Potential content and form) and elemental content analysis (aqua regia digestion and ICP analysis). Some of the samples will be subjected to more detailed static tests including the Shake Flask Extraction (SFE) test, Net Acid Generation (NAG) test, and Rietveld X-Ray Diffraction. Testwork is underway and results will be available in the first quarter (Q1) of 2023."

This is insufficient detail to ensure the correct tests are being done. In fact, "aqua regia" is a partial digestion that detects only part of the heavy metals and other elements in a sample, and thus is not acceptable for most ML-ARD work including comparisons to total crustal abundances.

Also, the September 2023 Reclamation Strategy (see the next section) mentions the results of 96 core samples, without stating which methods were used and what the analytical results were. All this information "will be available in the first quarter (Q1) of 2023", but more than a year later the information is not available as qualified-professional-certified results and interpretations.

Under "Mine Rock Kinetic Testing Programs", it says:

> "Kinetic tests are used to assess how a material responds to oxidation / weathering processes over time, and are used to estimate the time until samples may start to produce acidity and the rates at which the samples release metals. Several mine rock kinetic testing programs will be conducted in 2023, including a program conducted in the laboratory (humidity cell tests) and a program conducted in the field (field leach barrel tests).
>
> • The humidity cell test program will be initiated in the laboratory in 2023. Ten tests are currently planned and the specific number of tests will be confirmed following receipt of the static testing results. Samples to be tested will include key mine rock materials with a risk for ML/ARD along with test samples that are representative of typical Project mine rock. Initial reporting on the humidity cell tests will be available in Q4 2023."
>
> • A field leach barrel program will be initiated in the spring of 2023. Ten tests are currently planned but the specific number of tests will be confirmed following receipt of the static testing results. The objective of this program is to evaluate rates of sulphide oxidation and metal release under field conditions. This information will be integrated with the results of ongoing laboratory humidity cell tests to evaluate lag times to acid onset and metal release from mine rock. The tests will be routinely monitored throughout the open water season in 2023. Initial reporting on the field leach barrel program will be available in Q4 2023."

It is now April 2024. Where are the progress reports "available in Q4 2023"? In any case, these tests take at least one year, and often longer, to complete according to the federal ML-ARD Prediction Manual (Price, 2009). Thus, reliable and professionally certified results will not likely be available until late 2024 or 2025 at the earliest.

Under "Overburden Characterization", it says:

> "A preliminary geochemical characterization program for overburden is underway. Thirty samples of the various types of overburden present around the property were collected as part of field work conducted in 2022. Samples were submitted to the laboratory for static testing (ABA and elemental content) and a subset of samples were selected for more detailed static tests. Results will be available in Q2 2023."

Strangely, in the September 2023 Reclamation Strategy (see next section), the preliminary results are mentioned for mine rock but not for overburden. This is important because this Project Definition estimates there will be about 200,000 tonnes of overburden disturbed (with recent documents less than a year later saying ~400,000 t). This is about three times more overburden than the ore being mined as a bulk sample. On average around Canada, about half of overburden at mineral deposits has significant ML-ARD potential, so there is a significant risk that Great Bear overburden will devastate water quality on, beneath, and around the site.

Under "Mine Water Quality Estimates", this Workplan states:

> "Mine water quality estimates for the AEX phase will be prepared in Q1 2023. Modelling will be conducted via mass balance approaches and will be supported by the AEX site water balance and available geochemistry data. The model results will be used to ensure that site water management needs are identified and addressed. Additional water quality modelling, representing the overall Project, will be undertaken at a later date as the project advances."

Mine-water mass balances are not often representative of leachates from sulphide-bearing rock and overburden as found at the Great Bear Project. There is no justification here for mass-balance modelling and its results could be irrelevant for Advanced Exploration as well as proposed mining. This approach should be examined in detail including the data on which it is based once qualified-professional-certified documents become available.

Under "Technical Data Collection Methodologies", it says:

> "The approach and methodology for the geochemistry programs were based on the requirements described under the Ontario Mining Act; namely guidance found within the documents DRAFT Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (Price 1997), and Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (MEM 1998). Additional guidance was provided by the reference document Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (MEND 2009), which represents best practice and industry standard approaches and methodologies for ML/ARD sampling and characterization in Canada."

In fact, this is wrong. The Ontario Mining Act states:

> "The sampling program shall be conducted by a person who is qualified in Ontario … in accordance with a report prepared by William A. Price on behalf of the [federal] Mine Environment Neutral Drainage (MEND) program, entitled "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..."

Therefore, for the Great Bear Project, "[t]he approach and methodology for the geochemistry programs were based on" 1997 and 1998 British Columbia documents with only "guidance" from the federal Prediction Manual. In reality, the approach and methodology are required under the Act to be based fully on the 2009 600-page federal Prediction Manual, which instead was only used for "additional guidance". The 1997 and 1998 BC documents (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997) provided relatively little detailed instructions compared with the federal Prediction Manual, so the Great Bear ML-ARD testwork started off as likely insufficient under the Prediction Manual and would have to be expanded.

Under "Field and Laboratory Work Timing", it says:

> "Some field and laboratory work associated with the geochemical characterization programs was conducted in 2022 as described in the previous sections. Additional lab work is planned for 2023 as outlined above. Field work will be conducted in 2023 to construct the Field Leach Barrel tests and monitor and collect leachate from the tests. Reporting for the various programs will be available through 2023 as described above."

I have not yet seen this reporting from 2023 and am not aware if it has in fact been reported and

certified in 2023.

In summary, problems encountered in this January 2023 Geochemical Characterization Workplan include:

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross wants to proceed with Advanced Exploration.

- All that is available now is 96 rock core analyses according to the September 2023 Reclamation Summary (see below), which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". In any case, the 96 samples were not collected and analyzed as required under the Ontario Mining Act (see next bullet). Thus, Kinross Gold and WSP are guessing on how bad the contamination will be, but admit that some of it will be bad, and are likely years away from completing the ML-ARD work required under the Ontario Mining Act and its Regulation 240/00 (Mine Development and Closure under Part VII Of the Act).

- The stated approach and methodology used for Advanced Exploration is "based on the requirements" of two British Columbia documents from 1997-1998 (Price, 1998; Price and Errington, 1998; Price, Morin and Hutt, 1997). In reality, the Ontario Mining Act says the approach and methodology must be based on the 2009 federal Prediction Manual, not just as "guidance" as Great Bear has done. Thus, the work for Advanced Exploration to date does not meet the Ontario Mining Act through Regulation 240/00 and does not meet the 2009 federal ML-ARD Prediction Manual (Price, 2009).

- Even if this Geochemical Characterization Workplan was applicable and consistent with the 2009 federal ML-ARD Prediction Manual, such work requires at least 2 to 3 years to obtain all required information and interpretations. Thus, perhaps in 2025 or some year after there might be sufficient ML-ARD for Advanced Exploration, but not any time soon.

4. Great Bear Advanced Exploration Program Reclamation Strategy (September 2023)

The Introduction of this document explains:

> "This memorandum was prepared to summarize the reclamation strategy for the AEX [Advanced Exploration] Program. The regulatory Closure Plan which will be filed with the Ontario Ministry of Mines is currently being developed. The purpose of this memorandum is to seek input from Indigenous communities regarding the proposed closure strategy for the AEX Program."

Thus, this memo is only to "summarize" the reclamation strategy in order to "seek input from Indigenous communities". As shown below, this summary is insufficient for Grassy Narrows First Nation to provide input and this reclamation "summary" in fact already reveals errors and misconceptions.

Section 2 entitled Project Information lists "major components" for Advanced Exploration. For tonnages and sizes, only the ore is mentioned and it will be shipped offsite. So there is no overall summary of areas, volumes, and heights of waste and disturbed materials remaining on site and requiring careful reclamation. This is important, because there will be at least 17 tonnes of mine waste rock generated for each 1 tonne of ore (see Sections 2 and 10 of this MDAG review), which is a substantial ore:waste ratio and one that requires intensive efforts to protect the surrounding environment. There would also be ~7 tonnes of overburden mined for each 1 tonne of ore, which increased through 2023 from an initial ~3:1 ratio.

Therefore, this Reclamation Strategy does not sufficiently protect the environment due to the lack of sufficient data, which is replaced by information that at best "suggests". The decision to mine a huge bulk sample of ore worth tens of millions of dollars, likely to offset exploration costs, has not been based on suggestions, so why are associated reclamation and environmental protection based on suggestions?

There is no explanation in this or other documents on why an underground bulk sample requires the destruction of surface vegetation and shallow soils to remove a relatively enormous volume of 400,000 tonnes of overburden (the most recent estimate, which had been increasing). Additionally, 96 ML-ARD samples are mentioned for rock "proximal" to the underground workings, but there is no mention of the 30 samples of overburden also tested for ML-ARD potential.

Because roughly half of overburden stockpiles at sites similar to Great Bear have significant ML-ARD potential, the Great Bear overburden should be assumed to have the same strong potential for water contamination and ARD (called "PAG" in this document) unless proven otherwise. It is alarming that Kinross Gold is assuming 100% of the overburden is environmentally benign.

Figure 2 of this Reclamation Strategy shows an unlined overburden stockpile where its seepage can contaminate local water and soil, and Figure 3 shows the overburden runoff and seepage is completely ignored. This serious omission can also be seen in Section 2.3 which ignores contaminant potential from overburden by simply addressing surface runoff and not subsurface

seepage and groundwater:

> "Runoff from the overburden stockpiles (will be monitored and treated to manage suspended solids as required and discharged)"

Section 2.1 on Underground Mining Methods Summary does not describe advanced exploration where a bulk sample of several tonnes is obtained and tested. Instead, Section 2.1 describes an initial four-year phase of mining of more than 1 million tonnes of waste rock and 200,000 tonnes (more recently, ~400,000 t) of overburden to obtain only 60,000 tonnes of ore worth tens of millions of dollars. In reality, four years of this type of advanced exploration is essentially being used as the first phase of the underground mine plan so that there is relatively little delay to start mining should the project be approved.

In the Project Definition (see Section 2 of this MDAG review), Kinross Gold provided three reasons for a relatively huge bulk sample along with 17 times more waste rock and now 7 times more overburden. However, as explained above, these reasons do not make sense. For example, Kinross says that bulk samples help to prove the continuity of underground access gold deposits and are very important to potential financiers. Yet, most of the proposed underground workings are focussed into two small lateral areas and not throughout the ore zone "to prove the continuity".

In Section 2.2 on Geochemistry Summary, it says:

> "The sampling approach and testing methods for the preliminary geochemical assessment are based on the requirements described under the Ontario Mining Act, namely guidance found within the DRAFT Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia (MEM 1998)."

This same error occurs in the January 2023 Geochemical Characterization Workplan. The Ontario Mining Act through its Regulation 240/00 does not mention the 1998 British Columbia document. Instead, the relevant wording is:

> "The sampling program shall be conducted by a person who is qualified in Ontario … in accordance with a report prepared by William A. Price on behalf of the [federal] Mine Environment Neutral Drainage (MEND) program, entitled "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", MEND Report 1.20.1, dated December, 2009, as that report may be amended from time to time..."

Page P-24 of this 600-page federal Prediction Manual specified by the Ontario Regulation 240/00 says, "Major technical assistance was provided by Kevin Morin (Mine[site] Drainage Assessment Group)... and Kevin Morin provided major editorial assistance." Therefore, for the Great Bear Project, I can attest that "[t]he sampling approach and testing methods" are based on the wrong document.

Based on the 2009 federal Prediction Manual required by Regulation 240/00, the proposed ML-ARD work "in progress" is not sufficient, likely because the Manual was used by Kinross Gold only as "[a]dditional guidance" instead of a required document. This is easily seen in words like "preliminary geochemical assessment" and "initial evaluation". The ML-ARD predictions and information are the main basis for design of water treatment and for reclamation/closure. Thus, it is not acceptable for treatment and closure to be based on "preliminary" and "initial" information.

This can lead to misleading impact assessments and receiving-environment effects.

There are already errors in the Great Bear ML-ARD work as found in this Reclamation Strategy. These range from an incorrect definitions of the fundamental acronyms of "PAG" and "NPAG", to major problems with samples collected to date. For ML-ARD, all that is mentioned as of September 2023 is 96 rock-core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be mined during Advanced Exploration, but only "proximal" which could also mean "very different". Some percentage of this proximal rock, such as 50% to 67%, is considered not to have much ML-ARD potential based on "preliminary" data, but that is unreliable or wrong.

Kinross Gold is guessing on how bad the ML-ARD contamination will be, and admits some of it will be bad. However, it is likely years away from completing the appropriate ML-ARD work required under the Ontario Mining Act and Regulation 240/00, including the federal ML-ARD Prediction Manual (Price, 2009).

Section 2.4 of this Reclamation Strategy on Closure Objectives says:

> "The primary objective of closure is to rehabilitate the area to a long-term safe and sustainable state that considers the desires of local Indigenous land users to the extent practical (such as post closure land uses) by promoting vegetation communities that support habitat for local species diversity and aquatic habitat that will support healthy fish populations. The purpose of this memorandum is to seek input from indigenous communities regarding end land uses and closure concepts."

It is remarkable that Kinross Gold considers leaving "NPAG" rock perhaps with a cover of 0.3 m of potentially contaminated overburden, plus a large amount of stockpiled overburden at the surface, to be a "long-term safe and sustainable state...". To the contrary, this reclamation strategy can result in perpetual water treatment. A cover over "NPAG" rock does not stop ML and contaminated effluent, which could instead require perpetual water treatment. The closure plan and its estimated cost of only ~$10 million would not pay for this.

Section 3 on Progressive Rehabilitation Measures says:

> "Mine rock will be moved underground during the program as needed for use as road material, and potentially as backfill in underground areas for stability."

This issue arises later where "PAG" rock is proposed to be moved underground after mining of the bulk sample and the many underground workings. The seriously major problem here is that "PAG" rock can release relatively enormous amounts of heavy metals and other elements as it is flooded and submerged. This can create a toxic "soup" of underground water, worse than any seen at the surface, that eventually flows out into the surrounding environment and groundwater system. This would likely require long-term pump-and-treat remediation of the surrounding groundwater. Such pump-and-treat remediation is not included or costed in the ~$10 million total closure costs, and would likely cost much more than $10 million itself.

As part of closure, Section 5.1 says:

> "The portals will be backfilled with NPAG rockfill."

Because this rock will probably be an ML concern, including leaching heavy metals and other elements, backfilling the portals with this NPAG rock that will remain partially exposed and oxidizing will lead to perpetual ongoing water contamination. Adding to this contamination will be backfilled oxidized-and-contaminated PAG material that will likely release relatively large amounts of heavy metal and other elements. Contaminated water from this PAG material, backfilled into the underground workings and partially flooded to the maximum level, and from the NPAG material plugging the portals, would start flowing out of the mine area and into the surrounding groundwater system unless there is perpetual collection and treatment.

Section 5.6 on Soils Testing mistakenly says:

> "The primary soil contamination that could be expected from the AEX activities would result from the use / spillage of petroleum / diesel fuels. A soil sampling plan will be developed at the time of closure to evaluate potential hydrocarbon or chemical contamination, as appropriate."

In reality, the primary soil contamination would likely be from the elevated levels of heavy metals and other elements in wind-blown fugitive dust (see Section 8 of this MDAG review). This dust would come from the PAG and NPAG blasted-rock stockpiles, from the overburden stockpile(s), and from mine roads and building foundations made of the blasted rock and overburden.

Section 5.7 of this Reclamation Strategy says:

> "The primary long term closure concern with respect to the mine rock stockpiles is acid rock drainage and metals leaching. Preliminary geochemical investigations suggest that up to approximately 35% of the AEX mine rock could be PAG, as discussed in Section 2.2. During the AEX Program, the PAG and NPAG mine rock will be segregated in accordance with the AEX Mine Waste Management Plan, which is currently being developed at the time this document was prepared."

"Preliminary geochemical investigations suggest that..." is not acceptable for design of the waste-rock piles and the treatment system. Preliminary geochemical investigations can be seriously wrong and substantially underestimate contamination from the rock and overburden.

Section 5.7 also says:

> "It is anticipated that up to 127,200 m^3 of PAG mine rock will be stockpiled at the AEX Program and will need to be appropriately rehabilitated either progressively or at closure."

The closure costs from the Program Closure Plan (see Section 5 of this MDAG review below) show it will cost $30.00 per m^3 to relocate the PAG rock back into the underground workings, where it would then contaminate the underground water that will eventually flow into the environment. This would be a total cost of $3,816,000. However, Table 12-1 from the Program Closure Plan (issued two months after this Reclamation Strategy) estimates PAG rock higher at 191,000 m^3 (a remarkable 50% more) costing $5,730,000.

Section 5.7 also says:

> "The NPAG Stockpile footprint may be covered with up to 0.5 m of overburden and seeded for revegetation. Additional cover depth is provided overlying the NPAG Stockpile to account for potential losses to void spaces in the mine rock. It is anticipated that the overburden material will fill in the void spaces and support revegetation."

However, the overburden could have ML-ARD potential, and thus would not support vegetation but instead kill vegetation.

In summary of the Reclamation Strategy from September 2023,

- The ML-ARD program is "in progress" so no one knows how bad the contamination will be and which elements will be at toxic levels requiring treatment, yet Kinross Gold wants to proceed with Advanced Exploration.

- All that is available now is 96 core analyses, which on their own are not reliable and cannot yet be interpreted reliably for ML-ARD. In fact, these 96 samples were not even of the rock that would be "mined" during Advanced Exploration, but only "proximal" which could also mean "very different". Also, 30 samples of overburden, which is intended to be left on surface and used for reclamation, were collected yet the results are not reported although there is ~50% probability that the overburden will release ML-ARD and thus be toxic. Kinross Gold and WSP are guessing how bad the contamination will be, but admit that some of it will be bad. They are likely years away from completing the ML-ARD work required under the Ontario Mining Act and its Regulation 240/00, because the work for Great Bear was not initially stated as consistent with Regulation 240/00. Even the definitions of ML-ARD acronyms used for the Great Bear Project are not correct according to the federal Manual specified by Regulation 240/00, which is additional evidence the Prediction Manual is not being followed.

- The bad ML-ARD rock appears to be associated with "rapid acid generation" according to the Program Closure Plan (reviewed in the next section below). This is an incorrect explanation of the phenomenon, but shows that the bad water quality will start coming out of the disturbed rock, including the underground mine walls, very quickly after initial disturbance. Informally, this is called "lag time" to ML-ARD, but most of the ML-ARD work has not yet been done to quantitatively estimate the lag time beyond "rapid". This contaminating rock will be stored on surface and possibly only later, likely after the lag time, some might be taken underground. When it contacts water underground as the workings partially flood and submerge, it will quickly release more contamination. This means the underground water moving into the surrounding groundwater system, and surface overflow if any, would have to be monitored and likely be treated for many years or in perpetuity after Advanced Exploration.

5. Program Closure Plan, Draft for Indigenous Review (November 2023)

This password-protected draft document for Advanced Exploration is only "for Indigenous review". This is odd to me since it is Kinross Gold's responsibility to design and justify the closure plan through certified professionals, rather than submit a draft to see if any First Nations notice the weaknesses and problems explained below.

In fact, since this draft report it is password protected, none of its content can be extracted for detailed re-interpretation and review. Thus, Kinross Gold is limiting the "Indigenous review" it is seeking.

In Table 5-3 entitled Approximate Mine Rock and Overburden Volume and Production Schedule in Section 5.7 on Mineral Materials Management, the total waste rock remains around 1,060,000 t relative to past documents (see the sections of this MDAG review above).

However, overburden has risen remarkably from past documents to "~170,400 m^3", expressed as m^3 instead of tonnes like the waste rock. It would be ~350,000 to ~400,000 tonnes of overburden. The overburden's ML-ARD status and its impact on water quality are poorly defined. This means that overburden at Great Bear becomes an environmental danger capable of substantial environmental impacts not currently identified or estimated.

Table 5-4 contains Preliminary Threshold Criteria for Segregation the AEX Program Mine Rock. The criteria for "PAG" do not say whether the criteria are "AND" or "OR", which is a huge difference and serious omission. Thus, ML-ARD is clearly still not reliably estimated, predicted, and understood at the Great Bear Project as of November 2023.

The text in Section 5.7.2 alarmingly says,

> "A preliminary sulphur threshold (TS) of 0.15% has also been proposed to differentiate between PAG rock and NPAG rock. The proposed threshold values are generally accepted as industry best practices in the absence of a site specific geochemical value."

No, 0.15%S is not "industry best practices". Quebec uses ~0.05%S and other provinces have not established a minimum value because technically there is no minimum value. Furthermore, it is rarely the sulphur level alone that distinguishes "PAG" (incorrectly defined in this document as "potentially acid generating" and "NPAG" (incorrectly defined in this document as "non-potentially acid generating"). Instead, according to the federal ML-ARD Prediction Manual (Price, 2009), the amount of Effective Neutralization Potential (ENP) plays a major role, as does site-specific criteria for the ENP-to-sulphur ratio.

This is explained in detail in the 600-page federal ML-ARD Prediction Manual that this ML-ARD work for the Great Bear Project is legally supposed to follow but does not. As a result, this "preliminary sulphur threshold" is an unreliable, questionable, and uncertified attempt to proceed with the design and planning for Advanced Exploration. Insufficient reliable information is available at this time, and even Appendix A "Certifications" is missing from this document. As a professional

in ML-ARD, I want to know the certified professional(s) who created these "preliminary" criteria.

"NML" is defined in this Closure Plan as "non-metal leaching" which does not apply to any rock in the world, as all rock is capable of leaching some metals and even nonmetals. In any case, "NML" in Table 5-4 for the Great Bear Project is rarely definable by the solid-phase level of a single element like "Arsenic < 30 mg/kg", but Kinross Gold does not know this because it has not yet completed the on-site and laboratory-based kinetic tests. If leaching were dependent on solid-phase levels as believed here, then Great Bear waters would contain thousands of mg/L of aluminum and silica because most of its rock is made of those elements. But this is not the case. This is why these are called "preliminary threshold criteria" in Table 5-4, which in reality are likely wrong and nonsensical.

Section 9.16 on Watercourses and Site Drainage contains Tables 9-1 to 9-5. Tables 9-4 and 9-5 contain predictions of on-site and effluent contaminant levels only after closure, which would obviously be much less than during active exploration. However, the text does not even discuss or explain Tables 9-4 and 9-5. They appear to be "thrown in" to appear complete.

Table 9-4 contains Geochemical Source Terms, which are the predicted aqueous concentrations for all contaminants in Great Bear water caused by Advanced Exploration. In reality, there are many problems with this Table 9-4 including:

- It does not include "PAG" concentrations which will be much worse and will be present for at least four years, because this Table is intended only for closure but alarmingly does not include the likely more severe PAG contamination when it is backfilled into the underground workings.
- It assumes closure drainage from "Covered and Revegetated Area" will be instantaneously at pre-exploration "baseline water quality", which is wrong.
- It shows elements likely requiring perpetual post-closure treatment include aluminum, antimony, arsenic, and selenium.
- It does not include predictions for many potential contaminants such as manganese, magnesium, sodium, potassium, barium, hardness, alkalinity, acidity, fluoride, chloride, bismuth, chromium 6+, lithium, silicon, strontium, tellurium, thorium, tin, titanium, and zirconium.
- It does not allow for federal emerging contaminants such as platinum-group metals and tantalum.
- It is based on a report "WSP 2023f" which is the draft "WSP, 2023f. Advanced Exploration (AEX) Phase – Preliminary Water Quality Estimate Update - Draft. WSP E&I Limited, April 2023". This report is only draft and thus is unreliable and not professionally certified.

Table 9-5 contains Mine Water Pond Overflow Estimated Water Quality which apparently would be overflow off the exploration site upon closure. It raises important questions, like how does aqueous sulphate decrease from 75-100 mg/L (Table 9-4) to 18-25 mg/L (Table 9-5) in mine-water-pond overflow when there is no treatment? In any case, some predicted concentrations are likely too high to discharge to the environment like arsenic. Also, sulphate reportedly increases the methylation of mercury and other elements.

Table 12-1 is the Closure Cost Estimate. The cost for moving PAG rock back underground is set at $30.00/m^3 which is ~$15.00 /tonne. The total waste rock from Advanced Exploration is estimated at 1,060,000 t. Kinross Gold currently guesses, based on preliminary uncertified information, the waste rock will be about one-third to one-half "PAG" requiring backfilling to the underground. Therefore, the cost for this task alone is $5,000,000 to $7,500,000 based on the unverified guess, and could reach a maximum of $15,000,000. Because the current Grand Total for Closure is estimated at ~$10,000,000, the backfilling of rock is the major cost item and could cost much more than the $5,730,000 currently estimated. In turn, Total Cost could cost many millions of dollars more than currently estimated from the guessed minimal amount. Put simply, closure costs are likely grossly underestimated.

All six appendices of this Program Closure Plan are missing, including professional certifications. This is likely not an error or oversight, meaning this Program Closure Plan should not be considered reliable and dependable.

In summary of the password-protected Program Closure Plan, Draft for Indigenous Review from November 2023,

- In November 2023, the volume of overburden has approximately doubled from previous documents without an explanation. Because overburden generally has a 50% probability of releasing ML-ARD and contaminating water, overburden represents a major but unexamined threat to water quality on, around, and beneath the Great Bear exploration site.

- "Preliminary" criteria are provided for separating "PAG" and "NPAG" rock and for "NML" rock. However, these acronyms are not used in an accurate manner consistent with the 2009 federal Prediction Manual (Price, 2009) required under Regulation 240/00. The preliminary criteria are not rational based on ML-ARD science unless justified with detailed and intensive site-specific studies, which have not yet been completed and certified for the Great Bear Project.

- The potential for ML-ARD after closure is presented all the way to detailed predictions of aqueous concentrations in mg/L for on-site water and effluent to the environment only after closure. However, these predictions are not explained in any detail, are not justified, appear anomalous, and are not certified by a qualified professional. Some predictions are actually pre-exploration baseline which are erroneously assumed to be re-established immediately at closure. Furthermore, these predictions are missing more than a dozen potential contaminants.

- The "PAG" rock, which would likely create the highest contaminant concentrations, is not included in this Program Closure Plan, presumably because this "PAG" rock will be backfilled underground. However, when placed underground, this "PAG" rock will likely continue to release severe ML-ARD until submerged, at which point a relatively huge amount of accumulated contamination would be released into the underground water. After the mine is refilled to equilibrium and the minewater begins flowing into the surrounding groundwater system and through the many permeable drillholes more than 500 km long to the

environment, it will contaminate large surrounding areas. This major risk to water quality and the environment is not even mentioned in this Closure Plan, which is a major omission.

- The backfilling of "PAG" rock at closure is the largest individual cost item for closure totalling around $10 million. However, this reflects the currently minimum volume based on preliminary, unreliable information. In the worst case, which was assumed for the Great Bear Project Definition and still not disproven, total closure costs could exceed $20 million.

6. Hydrogeological Workplan (December 21, 2022)

This Workplan for 2023 says:

> "The purpose of the program will be to develop a refined hydrogeological model of the site, support groundwater model calibration and be used for long-term monitoring. The information collected in the upcoming field surveys will supplement the existing information.... Hydrogeological testing and groundwater sampling will occur at specific locations near the Project site shown in Figure 1."

However, Figure 1 of the Hydrogeologic Workplan shows a major omission which would preclude fully meeting its purpose and objectives. The currently proposed mine plan shows the "Tailings Management Facility" extending at least 2 km to the west and northwest of Tear Drop Lake. Figure 1 shows that the Tailings Management Facility and its hydrogeologic effects would extend far beyond the western limit of the monitoring wells. Thus, many more monitor wells are needed westward and northward at least to Stone Lake, Gullrock Lake, and Genessee Lake.

In summary of this Hydrogeological Workplan from December 2022, there is a major omission that would preclude a reliable and comprehensive assessment of current baseline hydrogeologic conditions and of future impacts from proposed mining. The groundwater monitoring network does not extend far enough to the west and northwest, beyond the proposed western portion of the Tailings Management Facility.

7. Surface Water Quality Workplan (December 21, 2022)

This Workplan for 2023says:

> "Baseline surface water quality work has been ongoing for the proposed Great Bear Project (the Project) since 2020. This proposed workplan for 2023 is to gather supplemental water quality data that will be used to further support long term monitoring and the development of the Project."

This Surface Water Quality Workplan provides incomplete lists of important details prefaced by "including", like "These sampling locations include..." and "Standard suite of total and dissolved metals including...". This can lead to major problems in the future if a sampling location or water-quality parameter is missing.

For example, the "Standard suite of total and dissolved metals including..." does not mention important elements like manganese, titanium, thallium, and federal emerging elements like tantalum and platinum-group elements. Therefore, Kinross Gold is risking major omissions and flaws that can arise later by not being comprehensive in its "including" lists.

In summary of this Surface Water Quality Workplan from December 2022, there are insufficient information and details to determine if appropriate work is planned and conducted. This is because important details are listed only as "including". For example, major potential contaminants like manganese and thallium are not specifically listed, but perhaps they are implicitly included? There is no way to know.

8. Fugitive Dust Best Management Practices Plan, final draft (September 2023)

Section 4.5 on Material Stockpiles in this "Final Draft" states there will be two overburden stockpiles created during Advanced Exploration, one north of the mine-rock pile and another east of the crusher area. Some Great Bear documents reviewed above and the undated "AEX Site Plan - Updated.pdf" do not show this. Because the overburden has a general 50% probability of contaminating water and because overburden is specifically listed as a site component requiring ML-ARD evaluation and potential mitigation, this contradiction on overburden stockpiles is not acceptable. It further shows that Kinross Gold's ongoing issuing of "preliminary", "initial, and "draft" documents is causing confusion inside the project itself and thus should not be approved at this time.

Section 5.1 on the Composition and Characterization of Particulate Emissions contains a major error that would grossly underestimate the geochemical contamination of soil, vegetation, water, and biota by dust, and is thus not acceptable. Section 5.1 says:

> "Fugitive dusts from roadways and stockpiles may contain trace metals which may be considered negligible as these would be similar in concentration to the background rock."

The ML-ARD studies currently underway on ore, waste rock, and overburden have already shown that some material will contain substantial solid-phase levels of many elements and will leach to some degree. This is certainly not "background rock" as assumed in this fugitive-dust study. Therefore, fugitive dust should be an important component of impact assessment for Advanced Exploration and proposed mining.

Furthermore, proposed dust suppression by watering could lead to widespread metal leaching and water-quality degradation across and around the proposed exploration site.

In summary of the final-draft Fugitive Dust Best Management Practices Plan of September 2023 for Advanced Exploration, this work is unacceptable because it grossly underestimates the potential impacts from geochemical contamination of soil, vegetation, water, and biota by dust. This work assumes the on-site sources of dust "would be similar in concentration to the background rock". This is wrong and ignores the ongoing ML-ARD assessment of ore, rock, and overburden.

9. PTTW Application for Dewatering, final draft (October 2023)

This is one of the few Great Bear documents that provide names for the qualified person writing the report, appropriately signed as "DRAFT" at this time. However, the reviewer but not the author is a P. Geo. So additional information is needed on the qualifications and certifications of the author(s). PPTW stands for "Permit To Take Water", meaning using and removing water from the Great Bear site.

9.1 Main Report

The tone of this "final draft" report for Advanced Exploration is apparent from Section 1.1 on the Purpose and Scope of This Submission. It says:
"Water takings during the AEX Program will include:

- Water pumped from the underground exploration workings (underground dewatering)
- Incidental surface water and groundwater takings, expected to occur during excavation of water management ponds.
- Direct taking from Dixie Creek (up to 250 cubic metres per day; m^3/day) to be used for dust suppression, industrial activity (e.g. in support of development pad construction and packing) and advanced exploration drill water cooling (underground drilling).

"No other takings from other area waterbodies (lakes, rivers, streams) are proposed.

"Most of the dewatering water pumped from the underground exploration workings will be directed to ponds within the AEX water management system, treated and ultimately discharged to the environment to be approved under an Environmental Compliance Approval for Industrial Sewage Works (ECA ISW)"

First, note that the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning that the actual total water withdrawal from the local water balance, as shown in Table 4-1 (discussed below), would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these values are unrealistically low (see Section 9.2 below). This major withdrawal of water, that could upset and dewater groundwater zones like aquifers and surface waterbodies like creeks and lakes, is much more extreme that numerically indicated in Section 1.1. This justifies an impact assessment on the proposed Advanced Exploration, despite this final-draft document stating:

> "The AEX Program does not meet the requirements of the Impact Assessment Act, Physical Activities Regulations. A Federal Impact Assessment is therefore not anticipated to be required."

Second, note that the quotation above states that water taken from Dixie Creek would be used for "dust suppression" among others. As explained in the previous Section 8 of this MDAG review, adding such water to ML-ARD dust from ore, rock, and overburden could seriously degrade water quality throughout the site and surrounding environment. However, this major environmental risk

is not considered or even mentioned here or in the fugitive-dust study. In fact, it is unreliably assumed to be no environmental risk at all.

Third, the discharge of up to 7,703,000 L/day of water that is only partially treated (see the details in other sections of this MDAG review like Sections 5 and 11) into any receiving environment could cause significant impacts from (1) the physical volume of the additional water and/or (2) its altered chemistry from baseline with implications on the receiving environment and cumulative effects.

Table 4-1 on Requested Water Takings shows that the requested surface-water withdrawal from Dixie Creek is 250,000 L/day and an additional 170,000 L/day from pond excavations. However, more than 10 times this amount will be removed from the groundwater system every day. The additional groundwater withdrawal is estimated at 783,000 L/day from pond excavations, 2,000,000 L/day from underground pumping, and on perhaps 30 days each year an additional 4,500,000 L/day removed as a contingency. Furthermore, as explained below for Appendix B of this PTTW document (see Section 9.2 of this MDAG review), the groundwater model incorrectly underestimates the much higher inflows that would arise during desaturation of the overburden and the rock surrounding the mine inside its "Zone of Influence".

Total water withdrawal from the existing water balance could thus likely be much more than 7,703,000 L/day relative to the Dixie Creek withdrawal of only 250,000 L/day. All this water would be taken from the existing baseline groundwater/surface-water balance which has likely reached some type of baseline equilibrium over the last thousands of years. When up to 7,703,000 L/day or more is removed from this equilibrium, there could be major disruptions to local and regional surface waters and groundwaters.

For example, a significant portion of the underground pumping of more than 6,500,000 L/day could be pulled from Dixie Creek through the underlying groundwater system. Thus, "takings" from Dixie Creek could in reality be 250,000 L/day plus substantially much more than this through groundwater. "Takings" could also come from other streams, lakes, and groundwater zones like aquifers, despite this report clearly stating, "No other takings from other area waterbodies (lakes, rivers, streams) are proposed". This statement is not reliable and could be seriously wrong.

Section 5 of this PTTW Application discusses Potential Environmental Impacts, with Section 5.2.1 specifically on Dixie Creek. There appears to be significant confusion here on the impacts of dewatering the underground workings on Dixie Creek.

Part of this confusion arises in the false thinking that baseflow coming from groundwater is simply part of the total flow in Dixie Creek. In reality, groundwater baseflow likely has a different, more stable temperature and a different water quality than the surface water flowing past the Great Bear Project. Therefore, it is important environmentally and to the benthic ecosystem to consider baseflow coming from groundwater separately from surface flow already in the creek.

Another part of this confusion on the physical impact of mine dewatering on Dixie Creek is related to which surface flow is used. Section 5.2.1 uses Average Annual Flow, Low Flow Period Average Flow (March), and Low Flow 7Q20. These show that mine dewatering will reduce flow in Dixie

Creek by only 0.2 to 2.4%. Again, these impacts would be greater because the groundwater of Appendix B (see Section 9.2 below) has underestimated the amount of underground water that has to be pumped.

Table 5-2 is more relevant for Dixie Creek, also copied as Table 7-2 in Appendix B. It shows the important, separate baseline baseflow for Dixie Creek is 2,601,000 L/day. This is predicted to be reduced by 873,000 L/day during dewatering for Advanced Exploration, although this is likely substantially underestimated by the groundwater model. Thus, much more than 34% of Dixie Creek baseflow will be taken away by the mine, which would have significant adverse effects during drought periods and on the quality of the benthic aquatic habitat. Additionally, the baseflow for Unnamed Waterbody 3 (called "Dixie Creek Tributary (TL-3)" in Appendix B) would be reduced a substantial 55%. This justifies an impact assessment for the proposed PTTW Application.

It is very important to note that this PTTW Application for Dewatering, final draft, contains and is based on critical information in its Appendices. The following comments pertain to these appendices, which in turn shows the main report is not reliable and not reasonable as a PTTW Application.

9.2 Appendix B

Appendix B of this PTTW report is a "Draft" Groundwater Modelling Report to Support PPTW Application for Underground Dewatering Final Draft. It contains a serious error in the groundwater modelling that underestimates initial groundwater inflow rates and thus dewatering pumping rates.

Table 4-1 of the main report says 3,203,000 L/day of groundwater would be removed every day, reaching up to 7,703,000 L/day on some days. Table 6-2 of this groundwater appendix says that the groundwater grid, from Genessee Lake on the west to half of Rice Lake to the east, has total groundwater inflows and outflows of ~10,000,000 L/day. If this modelling were correct, this means that roughly 32% of all groundwater in the area of the Great Bear Project will be drawn into and out of the mine on a daily basis, with up to 77% drawn into and out of the mine on some days as a contingency. However, it could well be worse as explained next. This justifies an impact assessment for the proposed PTTW Application.

If dewatering starts and continues for several years as proposed for Advanced Exploration at the Great Bear Project, and later during the expansion of proposed mining, groundwater inflow will come from two basic sources. The first, initial inflow will predominantly reflect the desaturating drainage of pores in the overburden and fractures in the rock, which will be relatively high at first and then decrease. Notably, the modelling currently shows that the overburden will eventually be virtually 100% dewatered to its base. This is called "transient conditions" and reflects the "specific yield" of the overburden and the "storage coefficient" of the rock. As this first transient inflow slows, likely years after Advanced Exploration ceases, the groundwater inflow will then come from "steady state", reflecting the hydraulic gradients and the hydraulic conductivities.

This modelling for Great Bear in Appendix B and for the PTTW Application is solely "steady state",

with no high transient inflow considered and no values for specific yields and storage coefficients even mentioned. Section 6 of Appendix B on Groundwater Model Development is clear on this:

> "Groundwater modelling was conducted for two phases: pre-mining site conditions for model calibration and mine operations conditions to predict *groundwater discharge rate to the proposed fully developed and dewatered underground mine workings* [MDAG emphasis]. These numerical groundwater flow models consider 3D *steady-state flow conditions* [MDAG emphasis] and implement an Equivalent Porous Media (EPM) approach, which is deemed sufficient for characterizing the overall groundwater flow regime at the scale of this analysis."

Thus, groundwater inflows in the years of active mining during Advanced Exploration have been clearly underestimated by considering only steady-state inflows after the proposed workings are "fully developed". Also note the ambiguous and unjustified "deemed sufficient" for the overall "EPM" modelling of groundwater at the Great Bear Project.

Table 6-3 showed that pre-mining single-value "measured interpreted" baseflows at two locations agreed with the Simulated Baseflow reflecting only long-term steady-state conditions by 14% or better. These single-value baseflows were 2,281,000 L/day and 847,000 L/day, which are less than the total groundwater that would be pumped from the mine during Advanced Exploration. Thus, a concern arises on whether baseflows could be significantly decreased by this pumping during Advanced Exploration. The main report (see comments above in Section 9.1 of this MDAG review) says the (underestimated) pumping effect would be minimal on most statistical values of flow in Dixie Creek. It is not emphasized that pumping would substantially reduce baseflow, with differing water quality and temperature than the surface water, and would be even more significant during droughts.

Figure 6-6 shows that the pre-mining Simulated Groundwater Levels were often 5 to 10 m higher than Observed Groundwater Levels, showing a strong bias towards overestimated (higher) simulated groundwater levels. It is not clear if this suggests simulated hydraulic conductivities may be too low. In any case, this problem manifests in Figure 6-7 where the simulated levels around Great Bear and Dixie Creek are typically around 9 m too high, which incorrectly and falsely indicate Dixie Creek could not be significantly dewatered during pumping because the water table is simulated to be very high. This is probably why Table 7-2 shows that the substantial yet likely underestimated partial dewatering of Dixie Creek Tributary (TL-3) and baseflow of Dixie Creek is 55% and 34%, respectively, and these dewatering percentages could be much higher if modelling were more accurate.

Of note, Table 7-1 indicates dewatering of Dixie Creek is only 1% because it uses the average annual flow that includes the sum of all storm events. It does not consider lost baseflow during dry times when aquatic life, vegetation, and water quality can be more severely degraded. Again, the simulated groundwater levels around Dixie Creek and Great Bear are often modelled around 9 m too high and thus actual dewatering of creeks and lakes could be much higher than stated in this groundwater report. In this case, Section 10 incorrectly states and underestimates based on the modelling that:

> "At the end of the AEX project, when dewatering is at its maximum, the model simulates a baseflow reduction for the Dixie Creek of 8.5% of the estimated 7Q20 (10,368 m^3/d) and 1% of the average annual flow (114,912 m^3/d), which is unlikely to change the nature of the flow

regime in the creeks."

In Section 7.1 on Groundwater Inflow Rate and Zone of Influence:

> "... the simulated long-term groundwater inflow rate into underground mine workings is 1,920 m^3/d [1,920,000 L/day]. This estimate of groundwater inflow into the fully developed mine does not consider uncertainty, seasonal variations or any loss from aquifer storage."

This simulated inflow is consistent with the estimated 2,000,000 L/day requested "taking" in the main report and in Table 8-1. However, the occasional contingency of 6,500,000 L/day which is apparently from "uncertainty, seasonal variations or any loss from aquifer storage" is relatively major. It highlights the expected variability of withdrawals and discharges of water into the surrounding environment during Advanced Exploration. Moreover, the reference to "aquifer storage" highlights the failure of the modelling to consider higher-inflow transient conditions which would be most important in the early several years of Advanced Exploration.

However, even ignoring the important high-flow transient conditions, Table 7-1 shows that the steady-state 2,000,000 L/day can be easily exceeded by non-base-case conditions like three-times-higher hydraulic conductivity of bedrock and by the water-conducting LP Shear Fault 1.

Section 7.1 explains:

> "The model-predicted Zone Of Influence (ZOI), defined here as 1 m drawdown of head in the glacial till unit is shown in Figure 7-1. The ZOI is predicted to extend about 1.2 to 2.5 km from the centre of the AEX site to surrounding environs."

Using the 1 m drawdown contour is not appropriate here, because modelled groundwater levels are already around 9 m too high and because Figures 4-9 and 4-12 show that some shallow groundwater levels can vary by 1 m naturally. Thus, the Zone of Influence could turn out to be much larger and thus affect lakes and creeks. In any case, even a 1 m decrease in groundwater level beneath a creek or lake can lead to substantial dewatering.

Figure 7-1 shows Simulated Drawdown Contours in Glacial Till. However, drawdown is only shown as a maximum of around 36 m, which is obviously not correct for dewatered drifts up to 600 m deep. Moreover, the maximum drawdown of 36 m in the overburden means most of the pores of the overburden would be primarily drained into the mine, which occurs during the ignored transient conditions.

The apparent explanation for the discrepancy between the maximum 36 m drawdown and the dewatered workings 600 m deep is that the drawdown in the bedrock is not shown, but would locally obviously be around 600 m. This 600-m drawdown would likely create a relatively huge drawdown zone in bedrock around the Advanced Exploration and the proposed mine extending for many kilometers around. This would be much larger than in the Zone of Influence in the overburden shown in Appendix B Figure 7-1. This justifies an impact assessment of this proposed dewatering since many impacts of the dewatering have been ignored or underestimated.

9.3 Appendix C and Its Several Draft Monitoring Programs

Appendix C contains draft monitoring programs. The "Working Draft" AEX ISW Groundwater Monitoring Plan, like many other Great Bear documents, ignores the overburden that likely has ML-ARD potential and can seriously contaminate water. This lack of consideration for potentially contaminating overburden can be seen in Figure 1-7 Water Management Schematic that has no mention or recognition of the overburden stockpile(s). The same is noted in Figure 1-6 of both the "Draft" ECA ISW - Advanced Exploration Surface Water Monitoring Plan Draft and the "draft" AEX ECA ISW Aquatic Resources Monitoring Plan in Appendix C.

9.4 Appendix D

Appendix D Consultation Records is missing from this file.

9.5 Summary

In summary of this PTTW (Permit To Take Water) Application for Dewatering, Final Draft, and its several important appendices from October 2023, there are alarming errors and ambiguities that should preclude approval of PTTW. These should also trigger a detailed impact assessment, which this PTTW report conversely says is not needed for Advanced Exploration at Great Bear.

In the introduction to the main PTTW report, the only numerical water withdrawal mentioned is up to 250 m^3/day (250,000 L/day) from Dixie Creek. Thus, it is stunning because the actual total water withdrawal from the local groundwater/surface-water balance would be at least 3,203,000 L/day every day and reaching up to 7,703,000 L/day on some days as a contingency. Even these values are unrealistically low as explained here.

The errors begin with groundwater modelling that is based on long-term "steady state conditions" after the mine is "fully developed" and dewatered, and not on the correct, higher-inflow "transient conditions". Thus, inflow, pumping, and dewatering are significantly underestimated by the groundwater model and the PTTW Application. Additionally, there are problems with unrealistically low estimated effects on partial dewatering of Dixie Creek and other creeks and rivers. For example, simulated groundwater levels are modelled around 9 m higher than measured around the mine and Dixie Creek, which artificially and incorrectly prevent additional dewatering of Dixie Creek.

Groundwater levels are shown to be drawn down during dewatering to a maximum of only 36 m even though the dewatered workings will be 600 m deep. This reflects (1) nearly fully dewatering of the shallow overburden and (2) the lack of admission on the likely huge drawdown and much larger "Zone of Influence" in the rock beneath the overburden.

Baseflows into Dixie Creek and other waterbodies can be critical to aquatic, benthic, and terrestrial ecosystems because of groundwater's typically different water quality and temperature compared to water already flowing at the surface. This becomes more critical during droughts when baseflow

may be the main source of surface flows. The PTTW Application ignores the fact that more than 34 to 55% of existing baseflow would be lost during Advanced Exploration. It instead points out that the loss to groundwater would be only 2.4% and less of total flow depending on the chosen surface-flow statistic.

Overburden is routinely ignored in this PTTW document and its appendices, despite the proposed hundreds of thousands of tonnes of overburden likely having at least some ML-ARD potential and capacity to degrade water quality. In fact, some of the underground dewatering would be sprayed on the overburden for dust suppression, which in turn could lead to contaminated runoff across and off the site.

10. Draft (?) Detailed Project Description (November 2023)

In June 2023, Kinross Gold released the [final] Initial Project Description for the Great Bear Gold Project. Five months later, Kinross Gold issued the Detailed Project Description, where the first cover page showing "Kinross" says "DRAFT", but the second cover page for WSP E&I Canada Limited does not say "Draft".

The Kinross/WSP documents reviewed so far for proposed exploration and proposed mining are a mess with confusions over draft, preliminary, initial, and final. There is no reliable way to know what information issued by WSP and Kinross is considered final, reliable, and still applicable. In my opinion, all reviews for Great Bear should stop until Kinross Gold and WSP identify the final designs and plans for proposed exploration and proposed mining. Only then should they issue the final documents, signed and approved by qualified professionals.

Because the Initial Project Description was followed five months later by this perhaps-draft-perhaps-not-draft Detailed Project Description that apparently includes responses to Initial concerns, only the latter document is reviewed here.

10.1 Section C.3.3 Proposed Mine Facilities and Infrastructure

Section C.3.3 and Table C.1 provide a detailed list of all proposed mine facilities, many of which would be created during Advanced Exploration, which as explained above is closer to a first phase of mining. Many of the listed facilities require ML-ARD assessment including all under the headings of Underground and Open Pit Mine including mine walls and sumps, Stockpiles including overburden and waste rock, Tailings and Site Water Management including ditches, Aggregate Supply, Waste Management, Fuels and Reagents, all access roads and haul roads, all excavations and foundations for buildings, facilities, pipeline corridors, upgrades to bridge crossings, and the core shack including core-storage areas. Because these ML-ARD assessments are not completed at this time, it is prudent to conduct an impact assessment on all these components.

The Stockpiles section says:

> "Stockpiles will be created on the surface near the mine to store ore, mine rock, and overburden / organics resulting from site and mine development. Preliminary storage capacities of the stockpiles for the Project are the following, subject to revision as a result of ongoing exploration and technical studies:
>
> - Run of mine (i.e., uncrushed rock as transported from the mine) ore stockpile: approximately 0.1 to 0.5 million tonnes (Mt)
> - Low grade ore stockpile: approximately 5 to 20 Mt
> - Mine rock stockpile(s): approximately 210 Mt
> - Overburden / organics stockpile: approximately 40 Mt."

Thus, upon full mining, there would hundreds of millions of tonnes of mine waste, with most of it likely remaining on the surface and requiring perpetual maintenance. Additionally, low-grade ore

stockpiles are sometimes left on site after closure as waste-rock dumps. Because of this, some jurisdictions require financial assurances on perpetual maintenance of the low-grade dumps until/if they are processed. This should also be done for the Great Bear Project.

> " Based on the scale of the stockpiles and the environmental baseline studies which are in progress, it is expected that one or more of the Project stockpiles will overprint minor creeks which may contain fish."

Thus, there will be "overprint" impacts through destruction of fish, fish habitat, and associated water quality.

The Ore Processing section says:

> "Ore processing will entail several stages of conventional mineral processing such as grinding and classification, and cyanide leaching to separate the gold / silver from the gangue leading to production of doré bars."

Thus, the processing will add contaminants including cyanide and accelerated leaching of metals and other elements that will contaminate the water in the process, in the tailings impoundment, and in the fugitive seepage that will flow into the environment.

Also:

> "There are no sources of mercury from the ore processing."

This appears impossible because the ore rock going in, and the tailings and concentrate coming out, of ore processing should and will contain some level of mercury. The processing could even increase the solubility or leaching rate of mercury and other elements. Therefore, this appears to be an error unless Kinross Gold can prove the tailings and concentrate from the ore processing contain absolutely no mercury. This is highly unlikely if not impossible to prove.

The section on Tailings Management explains:

> "The primary by-product of ore processing is tailings. Tailings consist of ground rock and associated process effluents that result from the processing of ore. Tailings will be treated for cyanide destruction before storage. As part of the ongoing geochemistry investigations it was determined that the tailings may be potentially acid generating, Kinross is investigating the potential to desulphurize the initial tailings stream resulting in a non acid generating flotation tailings, and a smaller quantity of sulphide tailings that would be managed in a manner to mitigate their acid generating potential."

Cyanide destruction is rarely perfect and sometimes simply converts the cyanide to thiocyanide or cyanate which can then revert to cyanide after release to the environment. Because the details of Great Bear's cyanide destruction are not given, it is prudent to assess it for potential environmental impacts.

Tailings Management further says:

> "Tailings will be transferred from the processing plant to an onsite surface management facility as a slurry, or potentially as a filtered cake. A quantity of the tailings will also be sent to a paste backfill plant where they will be mixed with a binder (such as cement) to increase their strength, so that they can be returned to the underground workings to provide additional underground stability. Tailings could also potentially be stored in the open pit after mining

is complete.

Tailings paste backfill, dewatered filter-cake tailings, and the relocation and in-pit disposal of tailings each could have unique adverse impacts on water quality and this should be assessed by Kinross Gold.

> "Further detail on tailings management facility, including dam designs as applicable, will be developed as engineering progresses for the Project. The facility will be designed in accordance with all regulatory requirements including the Canadian Dam Association Dam Safety Guidelines as applicable."

Thus, the details for evaluating potential environmental impacts will not be available until "engineering progresses", which is consistent with the ML-ARD work which will not be completed for at least a few years.

Notably, this section on Tailings Management has no detailed description of water management including any water recirculation. This is a major omission that precludes a reliable assessment of impacts from how much water would be needed daily to run this proposed mine.

The section on Buildings and Yard Areas states:

"The following new permanent facilities are planned for the Project:

- Process plant and crusher / conveying system
- Mine office / dry / maintenance / wash bay complex
- Cold and warm storage buildings
- Reagent storage facilities
- General laydown areas and parking
- Additional core shack, laboratory and outbuildings
- Accommodations / camp
- Explosives storage facilities.

These will be supported by related road, piping and power infrastructure as needed."

The disturbed rock or overburden used in any of these Areas requires an ML-ARD assessment as explained in the 2009 federal ML-ARD Prediction Manual (Price, 2009).

The section on Water Management Facilities and Drainage Works explains:

> "Kinross proposes to establish an integrated water management system for the site to manage contact water from the underground mine, open pits and surface facilities. The underground mine will intercept groundwater, while the open pit will collect groundwater, runoff and direct precipitation. Mine water from the required dewatering of the underground mine and open pit, to enable mining to occur will be collected in sumps and pumped to the surface for additional management. The mine water management and treatment infrastructure developed for the AEX program is expected to be re-used at the beginning of operations and will potentially be incorporated into the overall integrated water management system for the operating mine.
>
> "Precipitation and surface runoff that comes into contact with mine-related facilities on surface will be collected in ditches and collection ponds designed. As needed, the water will be directed to the integrated water management system for treatment and discharge with

other site contact water.

> "The integrated water management system and associated effluent treatment plant will be designed and operated to ensure that effluent from the site meets all regulatory requirements and can be discharged to the environment. Effluent will be discharged to the Chukuni River a large watercourse with high assimilative capacity. This will allow continued use of the pipeline corridor established for the AEX program. The additional infrastructure required for the mine has not yet been determined."

This section on Water Management Facilities and Drainage Works does not explain the storm return periods for which the drainage works would be sized. Nor does it specify the design return period for the post-closure water management, such as the 24-hour 1-in-200-year precipitation or the Probable Maximum Flood. This is a major omission that precludes a reliable assessment of impacts from storm events that could lead to spills of contaminated site water, and thus confuses the decision on whether an impact assessment should be conducted.

Under Access and Site Roads:

> "A network of roads of will be established within the site as needed, minimizing water crossings. New roads will be constructed of aggregate or non-potentially acid generating mine rock. New major road and watercourse crossings are not expected for the Project, although minor crossings and cross drainages may be needed. The water pipeline corridor which will be developed for the AEX program, and potentially expanded with additional pipelines for the mine, includes an access road to allow for pipeline inspections, environmental monitoring and maintenance, and is expected to cross four headwater creeks / low-lying swales, likely as culverts (Figure C.1 and Figure C.2). The existing prefabricated truss bridge across Dixie Creek may be upgraded."

Any surface and subsurface disturbance including new roads require ML-ARD assessments before an impact assessment can be done according to the 2009 federal ML-ARD Prediction Manual (Price, 2009).

The Section on Aggregate Operations contains a serious error:

> "Aggregate will be required to develop the Project. The primary source of material is proposed to be *nonreactive mine rock and overburden* [MDAG emphasis] from stripping and other construction activities within the site. There are licensed commercial aggregate pits nearby (along Tuzyk's Road) that also represent a potential source of aggregate for the Project. Discussions with the owners of these aggregate facilities are planned to explore potential commercial arrangements.
>
> "New quarries for crushed rock and sand and gravel pits may be established on the Property if needed under the care and control of Kinross. Locations are not as yet known but may be situated at future development locations (such as within the tailing management area)."

Because there is no such thing as "nonreactive mine rock and overburden", then there will be no aggregate which is "required to develop the Project", which in turn literally means there can be no Great Bear Project or mine. This illustrates how Kinross Gold is submitting perhaps-draft

documents with statements intended to alleviate concerns that are instead false and misleading.

This document is not signed and certified by Qualified Professionals, so at least portions of this Detailed Project Description are more akin to Public Relations than technical accuracy. Grassy Narrows First Nation should be aware of these false statements in important documents supposed to describe accurately and reliably the proposed exploration and proposed mining of the Great Bear site. It is not prudent to decide impacts of proposed exploration and mining based on false technical statements.

10.2 Section C.3.4 Preliminary List of Mine Activities

This section C.3.4 lists many "preliminary" activities during Construction, Operations, and Decommissioning and Closure. While many sound like generally good ideas, they can turn out to be bad ideas and not even possible at the Great Bear Project.

For example, here are some "preliminary" activities:

> "Overburden and organic material from the open pits will be either stockpiled or used for progression reclamation"
>
> "Mine rock extracted from the underground workings and open pits will be stockpiled, re-used as aggregate, or potentially re-used a consolidated rockfill underground"

The Project Definition Document of December 2022 assumed all the mine rock would have strong ML-ARD potential and would substantially contaminate water. Overburden was not even assessed although required by Ontario Regulation 240/00. It is understandable that the initial worst-case scenario may be modified as years go by and as ML-ARD studies are completed according to the 2009 federal ML-ARD Prediction Manual. However, there may be little change from the worst case at the Great Bear Project, but no one knows at this time. Thus, these "preliminary" activities can cause wider and worse impacts; no one knows at this time. Nevertheless, this perhaps-draft Detailed Project Description lists them anyway without pointing out their potential for adverse impacts.

This section also says,

> "As operations continue the open pit will have a progressively larger surface area and will become deeper"

The proposed pits are a concern to me as I do not see them justified by Kinross Gold. In fact, Figure C.5 shows that most of proposed pits and excavations are not needed to access most of the ore. Thus, there seems to be another, unstated reason for them, but I cannot see what it is.

10.3 Section C.3.5 Preliminary Decommission Approach

This section says:

> "Decommissioning and final closure of the Project site will be governed by the Ontario Mining Act, and its associated Regulations and Codes, and will be informed by ongoing engagement with Indigenous Nations and potentially affected stakeholders. The Act requires

> that a Closure Plan be filed for mining project before construction, and that financial assurance be provided so sufficient funds are in place to carry out the decommissioning activities.
>
> "A preliminary description of the proposed decommissioning and reclamation measures is provided in the text that follows. The preliminary measures are subject to consultation, additional engineering and regulatory review. The active phase of decommissioning and reclamation is expected to be completed within approximately three years of the end of operations. Environmental monitoring will continue after reclamation is completed, until such time as the closure objectives as determined in the Closure Plan have been achieved."

It is important to note that this preliminary closure plan, which should include early and unexpected closure but does not, will determine the initial financial security. Thus, all potential major sources of contamination should be identified and costed now, but this is far from the case.

Many serious long-term concerns are omitted and thus cannot be added at this time to the cost of the initial financial assurance. For example, the section on the Underground Mine does not mention the costly and serious water-quality degradation that would likely accompany the backfilling of "PAG" rock into the mine, where the rising, flooding water can become seriously contaminated beyond that seen at the surface. This seriously contaminated flooding water would likely eventually reach an equilibrium level where it would begin flowing out into the surrounding groundwater system and the environment years after closure. This would require long-term or perpetual pumping and treatment of groundwater, which could substantially or enormously raise the financial assurance.

Alternatively, the "PAG" rock (and overburden) could be kept in a stockpile at the surface where its ongoing seepage of infiltrating water through some type of cover would require perpetual collection and treatment. This section implies the ML-ARD would stop by incorrectly saying:

> "Reclamation measures will be designed to mitigate acid mine drainage / metal leaching concerns as needed. This may include design and placement of an appropriate cover over the mineral waste."

ML-ARD is not mitigated cheaply and permeable covers do not stop infiltration but may reduce it if well maintained in perpetuity, still leading to perpetual maintenance and water treatment. Very expensive impermeable covers may virtually encapsulate and isolate the contaminating rock and overburden if carefully maintained in perpetuity, which also includes additional costs for perpetual maintenance and repair.

Or perhaps as Section C.6 on Potential Alternatives states, the mine rock would be used as "reclamation material" where it could contaminate more of the site. Or the mine rock would be placed into "storage in depleted open pit". In the pits, the backfilled mine rock would contaminate inflowing water that would eventually fill and flow into the surrounding environment, or eventually drain down into the underground workings where the second paragraph above explains the fate of the underground water.

One way or the other, the closure cost only for the rock and overburden alone will likely be much higher than envisioned in this perhaps-draft Detailed Project Description.

There are other examples like this that are not recognized and costed in this Section C.3.5.

Therefore, whatever the current estimated cost of financial assurance based on Section C.3.5, it should be raised substantially higher. This would also cover the expense should early or unexpected closure occurs, which is credible and often expected but is not mentioned or considered in this Great Bear document.

10.4 Section F Potential Effects of The Project

Section F on potential effects of the project during Construction, Operations, and Closure starts with Table F.1 Preliminary List of Change to the Environment under Federal Jurisdiction.

The row of Table F.1 for the Fisheries Act during the Construction Phase says:

> "Alteration, disruption and destruction of fish and benthic fauna habitat from direct disturbance (including potentially from overprinting by mine rock and tailings management facilities), blasting and mine dewatering" with the Preliminary Area of Influence only "Project footprint"

For mine dewatering, the ongoing drawdown of groundwater and ongoing dewatering of surface waterbodies does not stop immediately as the pumps are turned off at the end of Operations, but can continue for many years afterwards through Closure. Also, the Area of Influence could be much greater than the Project Footprint (see Section 9.2 of this MDAG review). However, Operations and Closure does not mention this long-term ongoing impact. This illustrates how "Preliminary Changes" are only partially recognized in this Detailed Project Description, and important ones are not mentioned and considered.

Additionally, for Closure under the Fisheries Act Table F.1 says:

> "Potential for creation of fish habitat in new pit lakes, expected to be re-connected to the Dixie Creek system"

This shows a lack of understanding of water-quality impacts and ML-ARD, similar to the Great Bear "nonreactive mine rock and overburden" that does not exist (see Section 10.1 of this review). It sounds good to non-technical readers to say the pit lakes will be fish habitat and "re-connected" to Dixie Creek although they are not currently connected. On the other hand, technical readers know this is highly unlikely considering the type of rock and ML-ARD likely to come from Great Bear rock, pit walls, and underground mine walls. These Great Bear pits as proposed, long after Closure, should not be expected to meet the requirements of the Fisheries Act.

Table F.2 Preliminary Summary of Potential Environmental Effects says:

> "- Underground mine and open pit dewatering will affect the local groundwater levels and may affect surface water flows
> - Groundwater quality is not expected to be affected"
>
> "Preliminary Areal Extent:
> - Dewatering may result in a depression in the local groundwater level which is currently under investigation"

Section 9.2 of this MDAG review explains how Kinross Gold's groundwater modelling is aware of, but avoids showing, the substantial lowering of groundwater levels by dewatering to a remarkable depth of ~600 m in the rock, while the overlying overburden is virtually fully dewatered to its base. This dramatic lowering will be much more than the comfortable sounding word of "local" in the above quotations. It will be much worse than "local". This will also likely have a major impact on groundwater quality, as Section 9 of this MDAG review explains, despite Kinross Gold's unjustified and unreasonable expectation that "Groundwater quality is not expected to be affected".

Furthermore, surface creeks and lakes could be dewatered much more than modelled because modelled groundwater levels are simulated around 9 m higher than measured, reducing the modelled and predicted dewatering below reality. Baseline flows to local surface waterbodies, which are critical to the benthic ecosystem and aquatic life due to their differing chemistry and temperature, will be reduced by 34% and more, but no one yet knows how much more.

Section F.6.1 on Atmospheric Emissions has a major omission that shows the environmental impact from atmospheric emissions would be much greater than stated. Section 8 of this MDAG review has explained that fugitive dust at Great Bear, and any water used to suppress this dust, would have a substantially larger environmental impact than currently recognized and modelled. Thus, impacts from air emissions have been underestimated in this Detailed Project Description that could be used to determine an impact assessment.

Section F.6.2 Liquid Discharges states:

> "Mine water will contain suspended solids from mining and earthmoving activities, ammonia residuals from ammonia-based explosives, and residual hydrocarbons from heavy equipment operation. Leaching of the exposed bedrock within the underground mine and open pit may potentially contribute minor quantities of metals to the mine water."

This is another example of bad science appearing as technical information in this perhaps-draft Detailed Project Description.

- First, underground mine water will also contain dissolved metals and other inorganic contaminants.
- Second, since ammonia is expected to be so high from underground explosives that a special treatment circuit is needed for it, then the always accompanying high nitrate and nitrite that will not be treated but discharged to the environment will also be high and contaminating.
- Third, since underground mine water will contain hydrocarbons, why is there no option to treat these potential organic contaminants?
- Fourth, leaching of mine walls in underground workings and open pits can, and elsewhere have, seriously contaminated the mine water, with the contamination increasing as the area of mine walls increases during mining. This could happen at Great Bear because more than 10 km of underground workings would likely be mined. However, the ML-ARD testwork to predict this under the federal ML-ARD Prediction Manual will be in progress for at least a few years. So, once again this Detailed Project Description misleads by already concluding that the leaching "may potentially contribute minor quantities of metals to the mine water". The reality could just as easily turn out to be "the leaching will contribute substantially high and toxic quantities of metals to the mine water". No one knows yet, not even Kinross Gold and its consultant, WSP.

Some day in a future year, reliable "Modelling will be completed to assess the volume and quality of the water requiring management, which will be used in the design of the integrated water management and treatment facilities on site." At this time, the groundwater requiring management has clearly already been underestimated (see Section 9.2 of this MDAG review). Until then, no one knows with reasonable confidence how much water has to be treated, how severely it will be contaminated, and how thoroughly it will be treated.

The subsection on Process Plant says:

> "Excess process plant water is expected to be pumped with the tailings to a tailings management facility for storage. The tailings and process plant water will contain metals from the processing of metal-containing ore and residual processing reagent products. A cyanide destruction circuit will be established within the process plant to treat residual cyanide concentrations in the tailings and process plant water, prior to pumping to the tailings management facility."

A major aspect of water management and tailings management is the percentage of discharged process water that will be recirculated back to the process to minimize freshwater usage and contamination by "metal from the processing". This issue is not mentioned and thus is a serious omission. Additionally, "cyanide destruction" is not perfect and may not literally destroy cyanide but temporarily mask it until its release to the environment. These important issues are not mentioned either. Thus, this quotation gives the false impression that cyanide and metals will only be "residual" and will be treated to minimize them, but this is simply guessing that is not consistent with ML-ARD testwork so far.

Section F.6.4 on the Environmental Management System does not explain the currently likely scenario that one or more additional contaminants not currently recognized will arise in on-site water (see also Section 11 of this MDAG review). This would require at least months of storage of contaminated water on site until the treatment plant is expanded and updated. Therefore, the on-site storage of months of site-contaminated surface water and groundwater should be a major objective of the Environmental Management System.

10.5 Summary

In summary of this perhaps-draft Detailed Project Description of November 2023, the first cover page by Kinross says this document is "draft", but the second cover page by the authors, WSP, does not say "draft" so perhaps this is the final document. If so, it has not been signed by qualified professionals and thus should be rejected.

In any case, there are so many problems, misleading statements, errors and omission concerning ML-ARD, water quality, and environmental impacts that they cannot all be summarized well here. These problems include the following.

- The false statement that there will be no sources of mercury from the ore processing when in fact the tailings and concentrate from the process will contain mercury. The processing could even cause mercury and other elements to leach more quickly and become more mobile.

- Contrary to the impression given by this Detailed Project Description, cyanide destruction is not perfect and can simply mask the cyanide temporarily in the environment, but the important testwork to determine this has not yet been done for the Great Bear Project.

- Significant impacts on water quality can arise from seemingly benign proposed activities like paste backfill of tailings into the underground mine and dewatered filter-cake tailings, but the potentials for serious impacts are not recognized or not even mentioned in this perhaps-draft Great Bear document.

- Storm events and equipment upsets can lead to relatively large variations and unexpected impacts, day-to-day or even hour-to-hour, during proposed exploration and proposed mining. Instead, these Great Bear documents use averages like monthly which incorrectly assume flows will be the same every day of a month which is far from reality. Environmental impacts and spills can be caused by large variations, as well as longer-term averages, so the environmental risks of proposed exploration and proposed mining at Great Bear remain mostly unknown and not identified.

- Nonsense pseudo-scientific statements are used, like the aggregate required to build the Great Bear Project would be "nonreactive mine rock and overburden" which does not exist. This clearly shows that experienced and qualified professionals were not included in the writing of this perhaps-draft Detailed Project Description. If there is a true commitment to "nonreactive mine rock and overburden" which does not exist, then the Great Bear Project stops now.

- There is a lack of ML-ARD assessments for some site components like aggregate.

- There is a prevalent but likely false belief that "NPAG"rock will have little to no impacts on ML-ARD, water quality, and the environment. However, this has not been proven for the Great Bear Project and is likely wrong based on other minesites around Canada. "NPAG" rock can actually generate more acid than "PAG" rock and still release seriously contaminated levels of many metals and other elements at near-neutral pH.

- The financial assurance to ensure proper and fully paid closure of the proposed Great Bear Project is grossly underestimated based on existing information. Furthermore, the financial assurance should also include contingency costs for early or premature closure but it does not.

- There are likely devastating, expensive, and unrecognized ML-ARD consequences on water quality from the proposed relocation of "PAG" rock into the underground workings after operation.

- The ongoing, unproven, and likely wrong, belief continues that overburden would be environmentally benign, can be used across the site for reclamation, and can be sprayed with water to control dusting when it could instead create contaminating water around, below, and beyond the Great Bear site.

- There are unfounded beliefs that dewatering during exploration and mining would have minimal

effect on the local and regional water balance, and would not significantly dewater surface creeks and lakes including their environmentally important baseflow. These false beliefs are based on flawed groundwater modelling for the Great Bear Project explained earlier in this MDAG review.

- There is a false belief that dust blown off the site during proposed exploration and proposed mining and into the surrounding environment, vegetation, soil, water, and aquatic ecosystems is benign at "background" levels.

- A false belief is stated that only elevated and toxic ammonia, and no other contaminating nitrogen species from explosives that consistently accompany the ammonia, will appear in mine water during proposed exploration and proposed mining.

- There is an unsupported and likely substantially underestimated statement that the mine walls in the pits and underground workings "may potentially contribute minor quantities of metals to the mine water" instead of the more typical significant quantities of metals seen at many other minesites around Canada. This is taken to the likely ludicrous statement that there would be "Potential for creation of fish habitat in new pit lakes, expected to be re-connected [sic] to the Dixie Creek system".

- There is no recognition of the implications, costs, and impacts of storing months of contaminated mine water on the site should one or more "unexpected" yet currently predictable inorganic contaminants and ML-ARD occur on the site water during and after proposed exploration or proposed mining.

11. Water Treatment during Proposed Exploration and Proposed Mining

Most of the contaminated water at the Great Bear Project during proposed exploration and proposed mining would be subjected to water treatment. There would remain some fugitive contaminated water and contaminated dust that would impact the surrounding environment. This fugitive contamination has not been assessed in detail by Kinross Gold, and is even ignored or not recognized in several Great Bear documents as shown above in this MDAG review.

If fugitive contamination turns out to be minimal, then water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts. Therefore, proposed water treatment should be examined and justified in great detail. This has not yet happened for the Great Bear Project.

At this time, I could not find any detailed and professionally certified report on water treatment for proposed exploration and proposed mining. The previous sections of this MDAG review have discussed water treatment as it appeared in some documents, where the current information was found lacking or misleading.

Minewater-treatment plants are not off-the-shelf available at stores like Canadian Tire. This is because their treated effluent concentrations to the environment are very sensitive to the site-specific inflow rate of water and to the inflowing variations in aqueous concentrations of each contaminant element requiring treatment.

These treatment plants can be unstable when exposed to variable flows or to variable inflowing contaminant concentrations, resulting in only partially treated and still-contaminated effluents. Therefore, water treatment for proposed exploration and then again for proposed mining at the Great Bear Project has to be carefully designed, based on well-justified and professionally certified information on surface hydrology, subsurface hydrogeology, ML-ARD, and on-site geochemical source terms.

As shown in the previous sections of this MDAG review, this "input" information into the site-specific and reliable design of water treatment at Great Bear does not exist and will not likely exist for at least a few years. Until then, the available preliminary information is corrupted by errors and missing details. Therefore, it is not possible at this time to reliably define and design the required water treatment at Great Bear, or to estimate effluent concentrations, environmental impacts, and cumulative effects.

To provide some guidance to Grassy Narrows First Nation on aspects of water treatment at the Great Bear Project, it is helpful to review and comment on one of the latest documents that contain some details on possible water treatment. This document is: Great Bear Project Proposed Underground and Open Pit Gold Mine, a PowerPoint presentation made to Asubpeeschoseewagong Netum Anishinabek, dated November 10, 2023

Slide 20 of this presentation is entitled "Water Treatment". It points out that:

> "Contact water discharged to the Chukuni River will be managed to achieve regulatory requirements."

It is important for Grassy Narrows First Nation to recognize that "regulatory requirements" can vary vastly and that the applicable and protective requirements have to be carefully chosen based on site-specific information like flow rates and variations in influent (ML-ARD) and effluent concentrations. Alarmingly, Table 5-6 shown on Slide 20 invokes the "MDMER" or Metal and Diamond Mine Effluent Regulations, which allow toxic levels of metals and other elements. For example, normally toxic levels of 100 ug/L and more are allowed for arsenic and copper, and normally toxic 80 ug/L and more are allowed for lead.

This should be an immediate warning to Grassy Narrows First Nation that Kinross Gold does not intend to treat the site water to safe levels. Instead, treatment will only reduce concentrations to still-toxic levels and then rely on dilution in the Chukuni River to eventually reduce it almost to background levels.

The usage of toxicity dilution in the Chukuni River would create a "mixing zone" for some distance in the river, in which toxicity still exists and for which Fisheries and Oceans Canada would have to authorize the mixing zone. There appears to be some hydrodynamic modelling already done for this mixing zone in the River, but no details like flow rates and their variabilities were provided. Because the previous sections of this MDAG review showed that long-term to perpetual treatment and dilution may be needed for the Great Bear Project, Grassy Narrows First Nation should understand this will represent a very-long-term impact.

Additionally, such long-term ongoing discharge and dilution will add to cumulative effects, about which Grassy Narrows First Nation has expressed serious concerns.

Slides 20 and 21 present additional details on treatment. For example, a special and likely expensive ammonia treatment circuit will be included to treat elevated and toxic ammonia from blasting residues. Remarkably, nitrate and nitrite, which can also be toxic and can stimulate eutrophication in the Chukuni River and Dixie Creek, always accompany ammonia from the blasting residues. However, they are not even recognized here or in other Great Bear documents. This is a serious and unacceptable omission for the Great Bear Project.

Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

Slide 20 also commits to "ultrafiltration" which typically removes all suspended particles coarser than about 0.02 um. Because "dissolved" concentrations include nanoparticles and small particles up to about 0.45 um, this proposed ultrafiltration would also lower the functionally "dissolved" concentrations, but not those of fully dissolved elements. Thus, Great Bear treatment should be capable of approaching CCME (Canadian Council of Ministers of the Environment) safe criteria for aquatic life, but may not meet Grassy Narrows First Nation water-quality criteria (GNFNWQC). CCME aquatic-life guidelines and GNFNWQC could replace the toxic MDMER criteria and significantly reduce or eliminate the mixing zone and cumulative effects in the Chukuni River.

However, none of these details are discussed or mentioned in Great Bear documents.

Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called "sludge". In many jurisdictions, treatment sludge like that proposed for the Great Bear Project can reach "hazardous" or "special" waste levels, requiring the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and in sediments including soils and benthic ecosystems.

All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge. This is a major risk for serious environmental impacts that should be addressed in great detail for proposed exploration and proposed mining. I recommend that Grassy Narrows First Nation require intensive studies on the treatment sludge that will remain and be managed somewhere in perpetuity.

In summary for water treatment, Great Bear documents invoke water treatment as the major process that would prevent or minimize environmental impacts of proposed exploration and proposed mining. This is not literally true, because there will be fugitive contaminated water and contaminated dust leaving the site, but this fugitive contamination is ignored or not recognized in many reviewed Great Bear documents.

In any case, water treatment is the last "line of defence" between the on-site ML-ARD and contamination and the off-site impacts, and thus requires intensive study and characterization. However, at this time, water treatment for proposed exploration and proposed mining is ambiguous and contradictory among the documents. This should be expected because the input flows and input contaminant concentrations (ML-ARD) will not be known reliably for at least a few years. Nevertheless, there are serious concerns about water treatment now including the following.

- Kinross Gold does not expect to treat site water to non-toxic levels. Instead, treatment would only be down to still-toxic levels based on the Metal and Diamond Mine Effluent Regulations. Thus, Kinross Gold intends to rely on significant dilution of its contaminated effluent within a "mixing zone" in the Chukuni River. Such a mixing zone would include zones of significant toxicity and would require formal authorization from Fisheries and Oceans Canada. In any case, this discharge of effluent would add to cumulative effects, which is a particular concern of Grassy Narrows First Nation.

- Expensive and intensive treatment for ammonia, derived from blasting residues, is proposed. However, toxic levels of nitrate and nitrite, that always accompany the ammonia and which can cause eutrophication and other impacts in the Chukuni River and Dixie Creek, are completely ignored.

- Sulphate concentrations in the treated effluent, which I understand can increase toxic methylation of mercury and other elements like cadmium and arsenic, are not mentioned at all.

- Ultrafiltration may substantially reduce effluent concentrations for those elements not fully

dissolved, mixing-zone size, and cumulative effects. However, there are no details on this ultrafiltration in the reviewed Great Bear documents.

- Mine water treatment plants remove metals and other elements from the water, by creating concentrated and toxic treatment waste commonly called “sludge”, which can reach “hazardous” and “special” waste levels in some jurisdictions. Thus, treatment sludge requires the most careful and secure handling and long-term storage under contaminated-sites regulations. Spills of this sludge can result in toxic conditions in water and sediments including soils and benthic ecosystems. All the Great Bear documents I have reviewed so far are completely silent on the annual volumes, handling, storage, long-term protection, and potential environmental impacts of treatment sludge that will remain and be managed somewhere in perpetuity.

12. References

Morin, K.A., and N.M. Hutt. 2001. Environmental Geochemistry of Minesite Drainage: Practical Theory and Case Studies, Digital Edition. MDAG Publishing (www.mdag.com), Surrey, British Columbia. ISBN: 0-9682039-1-4.

Morin, K.A., and N.M. Hutt. 1997. Environmental Geochemistry of Minesite Drainage: Practical Theory and Case Studies. MDAG Publishing (www.mdag.com), Surrey, British Columbia. ISBN: 0-9682039-0-6.

Price, W.A. 2009. Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials. Canadian MEND Report 1.20.1, Natural Resources Canada, dated December 2009.

Price, W.A. 1998. Draft Manual for the Prediction of Metal Leaching and Acid Rock Drainage. Issued by the British Columbia Ministry of Energy and Mines.

Price, W.A., and J.C. Errington. 1998. Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia. Issued by the British Columbia Ministry of Energy and Mines.

Price, W.A., K.A. Morin, N.M. Hutt. 1997. Guidelines for the prediction of acid rock drainage and metal leaching for mines in British Columbia: Part II. Recommended procedures for static and kinetic testing. IN: Proceedings of the Fourth International Conference on Acid Rock Drainage, May 31-June 6, Vancouver, Canada, Volume I, p. 15-30.

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

July 9, 2024

The Hon. Steven Guilbeault
Minister of Environment and Climate Change
200 Sacré-Coeur Boulevard
Gatineau QC K1A 0H

Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario MSJ 1R7
Attention: Anjala Puvanathan (Director, Ontario Region)

Re: Great Bear Resources Ltd. ("Great Bear") – Great Bear Gold Project ("Project") – Response to Asubpeeschoseewagong Netum Anishinabek ("ANA") Request for Review Panel

We are writing in response to the letter dated 17 June 2024 ("**Request Letter**") from ANA to the Impact Assessment Agency ("**IAAC**") requesting a review panel pursuant to section 36 of the *Impact Assessment Act* ("**Act**") to review the Project.

For the reasons set out in this letter, Great Bear submits that a review panel is not necessary for the assessment of the Project under the Act. A thorough, comprehensive impact assessment ("**IA**") can be undertaken through the IAAC-led process. The IAAC-led process is also adaptable to respond in detail to specific issues that may arise related to Indigenous community interests.

1. Section 36(2) establishes the Minister's decision criteria

The Minister's authority to refer an impact assessment to a review panel is set out in section 36(2) of the Act, which reads as follows:

> 36(2). The Minister's determination regarding whether the referral of the impact assessment of the designated project to a review panel is in the public interest must include a consideration of the following factors:
>
> (a) the extent to which the effects within federal jurisdiction or the direct or incidental effects that the carrying out of the designated project may cause are adverse;
>
> (b) public concerns related to those effects;
>
> (c) opportunities for cooperation with any jurisdiction that has powers, duties or functions in relation to an assessment of the environmental effects of the designated project or any part of it; and

(d) any adverse impact that the designated project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982.

The circumstances of this Project assessment do not warrant a panel review based on a reasonable consideration of any of the relevant criteria in section 36(2). The ANA request focusses on potential impacts that fall under section 36(2)(d), which we respond to in section 4.

2. Mining activity in the Red Lake area is common, and the effects are well-understood.

The Project is in the Red Lake District in Ontario, a prolific mining district with an almost 100-year mining history. Given the large number of mining projects that have operated in this area, the geological, environmental, and social characteristics of the area are well-studied and understood. The local communities derive many benefits from the mining in the area, including employment and contracting to support those communities, and support mining.

Mining activities in the Red Lake District are subject to stringent environmental regulations and oversight by federal and provincial authorities. Accordingly, mining operations adhere to applicable environmental standards and manage any risks to local ecosystems and communities to appropriate standards.

Indigenous communities in the area have experience engaging with mining proponents and have negotiated various agreements and economic collaborations, resulting in community investments, employment opportunities, sustainable development, local land stewardship protocols, and an increase in positive, equitable relationships.

The existing record within the relevant provincial and federal regulatory agencies establishes a solid foundation to provide additional context for the Project-specific information that Great Bear will file for this IA.

3. Local Indigenous communities support mining if their interests are met

Great Bear has engaged with local Indigenous communities throughout the federal environmental assessment process thus far. Because of Great Bear's meaningful consultation and engagement, Lac Seul First Nation ("**Lac Seul**") and Wabauskang First Nation ("**WFN**") have indicated that they are open to the Project if the Project meets their interests.

Lac Seul and WFN have supported the Advanced Exploration program preceding the Project, and are engaged in negotiations with Great Bear for an agreement on the mine phase of the Project which would establish the basis upon with the Project would proceed with their support.

The Minister and IAAC must assess and reconcile the interests of Great Bear and all the local communities that will be affected by the AEX Permit and the Project. [1]

[1] See the *Ermineskin Cree Nation v. Canada (Environment and Climate Change)*, 2021 FC 758 (CanLII) case, in which the Federal Court decided that the Crown must consult with and consider the impact on the economic rights and benefits of Indigenous communities who have economic accommodation agreements.

4. The location, nature, and scale of the Project do not create the potential for adverse impacts that warrant the appointment of a Review Panel

In its letter to the IAAC, ANA cited various mine projects that had been referred to an independent review panel. Each of these projects had unique circumstances and potential impacts that are not analogous to the Great Bear Project. Specifically, those projects had circumstances that added to the complexity of their assessment, including the following: unique environmental conditions; a larger scale and scope of the construction or operation; a larger operational footprint or facilities; or local opposition.

It is more relevant to consider the Project on its own merits and against projects in the same region or Ontario. As noted in section 3 above, the region is a prolific mining region with many mine projects. Compared to other projects in the region, the Great Bear Project has less potential for adverse effects for the following reasons:

- The geographic footprint is relatively small.
- The construction and operation will involve well-understood practices that do not involve any complications or novel features.
- The potential environmental effects are limited in nature and scale and can be minimized by reasonable mitigation measures.
- The mining and processing will occur on the same site.
- The logistics to support the operation will be limited in nature and scale.
- The construction and operation will employ leading industry practice.

Other Ontario projects that have been larger in nature, scale and complexity have been assessed without the need for an independent review panel, including the following examples:

- The Greenstone Gold Project near Geraldton involved moving a highway, diverting a fish-bearing stream, a brownfield site with contaminated arsenic issues, a much larger processing plant, and required the relocation of historical tailings into the newly constructed tailings facility.
- The Côté Gold Project near Sudbury involved moving and draining streams and lakes, and a has much larger processing plant than what is planned for the Great Bear Project.
- The Magino Gold Project near Wawa involved moving and draining streams and a lake.
- The Detour Gold Project near Cochrane involved moving and draining streams and lakes, and a much larger processing plant.

The projects cited by ANA in other regions also involved elements that differ from the Great Bear Project. For example:

- The Marathon Platinum Group Metals and Copper Mine Project was an open-pit mine for platinum group metals and copper in Ontario. It involved substantial surface disturbance and

potential effects on the environment, including effects on wetlands and water bodies, water quality, aquatic ecosystems, and wildlife habitats. Indigenous communities raised issues regarding the adequacy and meaningfulness of consultation processes, as well as voiced concerns about the potential impacts of mining activities on culturally significant sites, archaeological resources and sacred areas within the project area.

- Suncor Base Mine Extension Project (Alberta)
- Rose Lithium – Tantalum Mine Project and the James Bay Lithium Mine Project (Quebec)
- The Grassy Mountain Coal Project in Alberta was large-scale open-pit coal mine that involved substantial changes to the landscape and local ecosystems and raised concerns about potential impacts on water quality, wildlife habitat, and Indigenous rights.
- Robb Trend Coal Mine Expansion Project (Alberta)
- Frontier Oil Sands Mine Project (Alberta)
- Jackpine Mine Expansion Project (Alberta)
- Pierre River Mine Project (Alberta)
- The Prosperity Gold-Copper and New Prosperity Gold-Copper Mine Projects in British Columbia was an open-pit gold-copper mine located in the Fish Creek Watershed, a part of the Fraser River watershed. The area is ecologically sensitive and supports critical spawning and rearing habitats for salmon species, and the project's development would have involved significant disturbances to the local environment, including the potential for acid mine drainage and impacts on water quality. Local communities, environmental organization, and Indigenous communities raised concerns about the potential for long-term environmental damage, risks to local water resources, impacts on recreational and tourism activities, and overall sustainability of the proposed development in the area.

5. The IAAC-led IA is comprehensive and sufficient

The IAAC-led IA is comprehensive and adaptable to meet the needs of the participants. It is more than sufficient to assess any potential environmental, social, health, cultural, or economic impacts of the Project. IAAC can call on expertise from the other federal agencies as needed and work collaboratively with the provincial agencies with expertise.

IAAC has expertise and experience to consult with and respond to all reasonable concerns raised by Indigenous and local communities.

6. Concluding comments

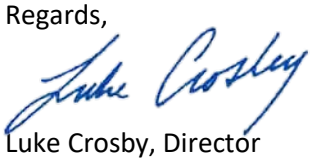
Great Bear seeks to establish a positive, collaborative relationship with the local Indigenous communities and will respond to all reasonable interests. Great Bear believes it can undertake all phases of the Project in a manner that respects those interests through good practice in the design and implementation of the Project, incorporating input from the Indigenous communities.

Great Bear follows industry best practices, adhering to all relevant and applicable federal, provincial, and local regulations governing mining activities. A key tenet of Great Bear's operations is its commitment to meeting or exceeding environmental standards through their environmental management plans, mitigation measures and monitoring protocols.

Great Bear would be pleased to elaborate on any of the points in this letter.

We look forward to your response.

Regards,



Luke Crosby, Director
Great Bear Resources Ltd., *A Kinross Gold Company*

cc.

Ashley Moncrief, Environmental Manager, Great Bear Resources Ltd., *A Kinross Company*
Aaron MacDonell, Director, Environmental Services, Great Bear Resources Ltd., *A Kinross Company*
Ian Russell, Site Manager, Great Bear Resources Ltd., *A Kinross Company*
Joseph Fobister, Land Protection Team Lead, Asubpeeschoseewagong Netum Anishinabek
Mike Fobister, Land Protection Team Coordinator, Asubpeeschoseewagong Netum Anishinabek
Jackie Esmonde, Land Protection Team Legal Counsel, Asubpeeschoseewagong Netum Anishinabek
Dan Mossip- Balkwill, Land Protection Team Advisor, Asubpeeschoseewagong Netum Anishinabek
David Sone, Land Protection Team Advisor, Asubpeeschoseewagong Netum Anishinabek
Rudy Turtle, Chief, Asubpeeschoseewagong Netum Anishinabek

Agence d'évaluation d'impact du Canada | Impact Assessment Agency of Canada

Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600-55, rue York
Toronto (Ontario) M5J 1R7

July 19, 2024

Aaron MacDonell
Director, Environmental Services
Kinross Gold Corporation
25 York Street, Suite 15th Floor
Toronto Ontario M5J 2V5
aaron.macdonell@kinross.com

Subject: Key amendments to the *Impact Assessment Act*

Aaron MacDonell:

On June 20, 2024, the *Budget Implementation Act, 2024*, No. 1, received Royal Assent and brought into force amendments to the *Impact Assessment Act* (the IAA). The purpose of this letter is to inform you of key amendments to the IAA, including the transitional provisions relevant to the Great Bear Gold Project (the Project), and the next steps.

The amendments:

- ensure that federal decision-making, namely the designation decision, the screening decision, and the final decision at the end of the assessment, are focused on areas of federal jurisdiction;
- narrow the definition of effects within federal jurisdiction to correspond to areas of federal constitutional authority. This means that for activities that are primarily provincially regulated, the effects within federal jurisdiction that are the basis of
- decision-making and condition-setting under the IAA are aligned with federal constitutional heads of power. These areas of federal jurisdiction are: fish and fish habitat, aquatic species at risk, migratory birds, federal lands, impacts on Indigenous Peoples, and transboundary changes involving the pollution of transboundary waters and the marine environment;
- ensure that ongoing prohibitions or conditions are only imposed as required to prevent or mitigate adverse effects within federal jurisdiction;
- increase flexibility in the IAA to work collaboratively with provinces to ensure efficiency and avoid duplication of processes in conducting assessments under cooperation agreements; and

…/2

- include transitional provisions to bring designated projects under the amended IAA and to recognize voluntary actions to advance assessments during the interim period (October 13, 2023 to June 20, 2024), to ensure time was not lost.

Further to the Impact Assessment Agency of Canada's (IAAC) letter of March 22, 2024, IAAC confirms that the Project may result in adverse effects within federal jurisdiction, as defined in the amended IAA, and will remain subject to the amended IAA.

Transitional provision 305 of the *Budget Implementation Act, 2024, No. 1* (Attachment 1) describes the steps by which the Agency or Minister will bring designated projects under the amended IAA. By taking a step under any of sections 10 to 59 of the amended IAA related to a designated project and posting a notice on the Canadian Impact Assessment Registry Internet Site (the Registry), all steps taken before the day the amended IAA came into force with regard to a project are deemed to have been done under the amended IAA. A step must be taken within six months following the coming into force of the amended IAA. Transitional provision 305 also provides that the Agency may replace any time limit or period established by or under the amended IAA by another time limit or period to recognize voluntary actions to advance assessments during the interim period. If there is any variance of the time limit, the Agency must post a notice on the Registry.

In accordance with transitional provision 305(2), IAAC intends to post a notice to the Registry when it has taken the following steps under the amended IAA:

- Subsection 18(1) Provide the proponent with the Notice of Commencement and any documents, including Tailored Impact Statement Guidelines and Plans
- Subsection 18(2) Posting the Notice of Commencement of the impact assessment on the Internet site.

IAAC does not intend to replace any time limit or period for the Project under transitional provision 305(4).

IAAC is available to meet with you if you would like to discuss the steps to bring the Project under the amended IAA. Please advise if you would like to arrange a meeting on July 23 or 24, 2024 for this purpose.

…/3

If you have any questions, do not hesitate to contact me by phone 647-616-2471 or email GreatBear@iaac-aeic.gc.ca.

Sincerely,

Boyd, Natalie

Digitally signed by: Boyd, Natalie
DN: CN = Boyd, Natalie C = CA
O = GC OU = EC-EC
Date: 2024.07.19 16:53:41 -04'00'

Natalie Boyd
Project Manager, Ontario Region

Enclosure(s):

Attachment 1**:** Transitional Provisions from the *Budget Implementation Act, 2024*

c. c: Luke Crosby, Kinross Gold Corporation

Sheila Daniel, WSP Canada Limited

Attachment 1: Transitional Provision 305, *Budget Implementation Act, 2024*

Designated projects

305 (1) This section applies in respect of a designated project if the Minister or the Agency [IAAC], during the six-month period that starts on the commencement day, takes a step with regard to that project under any of sections 10 to 59 of the amended Act.

Posting

(2) The Agency [IAAC] must post a notice on the Internet site that indicates the first step taken, the provision under which it was taken, the date on which it was taken and the designated project in respect of which it was taken.

Deeming

(3) Everything that was done before the commencement day with regard to a designated project in respect of which a notice is posted under subsection (2) is, if it may or must be done under the amended Act in respect of the designated project, deemed, as of the day on which the first step is taken, to have been done under the amended Act.

Agency's power

(4) The Agency [IAAC] may, when the first step is taken with regard to a designated project, replace, in respect of that project, any time limit or period established by or under the amended Act by another time limit or period.

Posting

(5) The Agency [IAAC] must post a notice on the Internet site that indicates, for each time limit or period that it replaces, the new time limit or period and the designated project with regard to which that new time limit or period applies.

Clarification

(6) For greater certainty, nothing in subsection (4) affects any power conferred on the Agency under the amended Act to extend or shorten any time limit or period.

Definition of *first step*

(7) In this section, *first step* means the first step taken by the Minister or the Agency [IAAC] under any of sections 10 to 59 of the amended Act in respect of a designated project during the six-month period that starts on the commencement day.

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

July 18, 2024

Stephen Deneault
Project Officer, Ministry of Environment, Conservation and Parks
Environmental Assessment Branch.
135 St. Clair Avenue W, 7th Floor
Toronto ON M4V 1P5
Email: Stephen.Deneault@Ontario.ca

Dear Mr. Deneault,

Kinross Gold strongly endorses Hydro One's collaborative approach in advancing the Waasigan Transmission Line Project alongside Indigenous communities including Couchiching First Nation, Eagle Lake First Nation, Fort William First Nation, Mitaanjigamiing First Nation, Nigigoonsiminikaaning First Nation, Ojibway Nation of Saugeen, Lac des Mille Lacs First Nation, Lac La Croix First Nation, Lac Seul First Nation, Seine River First Nation, Wabigoon Lake Ojibway Nation, as well as ongoing engagement with Métis Communities in Regions 1 and 2, and the broader public.

We commend Hydro One's dedication to environmental stewardship and responsible planning throughout the project's development since Spring 2019. The collaborative efforts with regional Indigenous communities and public stakeholders have been integral in identifying shared concerns and devising mutually beneficial solutions.

The Waasigan Transmission Line is essential for meeting the growing energy demands of northwestern Ontario, which is experiencing significant growth across sectors such as mining, forestry, and residential development. Our Great Bear Project, located approximately 25 km southeast of the Municipality of Red Lake, is currently in the development phase. Once operational, anticipated to be 2030, it will directly employ approximately 800 people and have a significant electrical load. We have been in discussions with Hydro One and the Independent Electricity System Operator with respect to grid power supply and it is our understanding that Waasigan Transmission Line will enable power supply to our minesite, and the greater region. By enhancing the capacity and resilience of the region's power grid, the project will ensure that businesses and communities have access to reliable, affordable and sustainable electricity. This, in turn, will foster economic diversification, attract investment, and generate employment opportunities throughout northwestern Ontario.

Kinross Gold recognizes the Waasigan Transmission Line not merely as an electrical conduit but as a pivotal catalyst for sustainable development in the region. It represents a progressive approach to infrastructure planning that balances energy needs with environmental and social considerations, paving the way for a resilient and prosperous future.

Benjamin Little

Ben Little
Senior Vice President, External Affairs
Kinross Gold

cc.
Sunil Kumar, Vice President, Energy Strategy, Kinross Gold
Ian Russell, Site Manager, Great Bear Resources Ltd. *A Kinross Company*
Mac Potter, External Relations Manager, Great Bear Resources Ltd. *A Kinross Company*

Northwest Energy Task Force
672 Churchill Place, Thunder Bay, ON P7C 5Y8
Ph: 1(807) 474-0926
Email: iainangus@tbaytel.net
Co-Chair: Iain Angus **Co-Chair**: Jim Vezina

ENERGY TASK FORCE

Stephen Deneault,
Project Officer,
Ministry of the Environment, Conservation and Parks
Email: stephen.deneault@ontario.ca

July 18, 2024

Re: Waasigan Transmission Line Project

Dear Mr. Deneault,

The Northwest Energy Task Force[1] is pleased to indicate its ongoing support for Hydro One's proposed Wassigan Transmission Line and its collaboration with nine area First Nations.

The Waasigan line is critical to support projected growth and energy demand in the Northwestern Ontario, particularly in the area north of Dryden as well as in the Atikokan area. It is important construction can begin on time to support the region's need for more electricity.

The Energy Task Force has been a consistent and vocal advocate for the development of the Wassigan line along with other improvements to the transmission and distribution system in the region.

Hydro One has effectively engaged and collaborated with stakeholders and interested parties across the region to select the most appropriate route and design since planning began in Spring 2019, have worked hard to resolve any concerns and that these efforts are reflected in the final Environmental Assessment Report.

It is essential that construction of the Wassigan line begin as soon as possible as the number of mines that will benefit are well into their final stages of planning.

Yours truly

Iain Angus
Co-Chair

Jim Vezina
Co-Chair

Copy to: Wendy Landry, President, Northwestern Ontario Municipal Association

Members, Northwest Energy Task Force

[1] Formerly the Common Voice Northwest Energy Task Force

CAVALLUZZO

Please refer to:	Sydney Lang
Direct Line:	416-964-5515
Email:	slang@cavalluzzo.com
Assistant:	Sama Sayegh
Assistant's Email:	ssayegh@cavalluzzo.com
File No.	191452

June 17, 2024

BY EMAIL

Attention: Anjala Puvanathan (Director, Ontario Region) (greatbear@iaac-aeic.gc.ca)
Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, ON M5J 1R7

Attention: The Honourable Steven Guilbeault (ministre-minister@ec.gc.ca)
Ministry of Environment and Climate Change
200 Sacré-Coeur Boulevard
Gatineau QC K1A 0H3

RE: Great Bear Gold Project – Designating Proposed Advanced Exploration Activities

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or Grassy Narrows First Nation"), we write to share with you Grassy Narrows' preliminary position with respect to an important aspect of the scope of the Great Bear Gold Project Impact Assessment.

It is Grassy Narrows' position that the Advanced Exploration ("AEX") activities proposed by the proponent, Kinross Gold Corporation ("Kinross"), specifically bulk sampling and associated activities, constitute a designated project under the *Impact Assessment Act*.

In the event that you disagree, we formally call on the Minister to designate the AEX activities pursuant to section 9(1) of the *Impact Assessment Act*.

If the Minister chooses to suspend his consideration of designation requests, then we call on the Minister to suspend the Impact Assessment and all AEX activities until the rules of the Impact Assessment process are clear and the Minister is able to consider designation requests that are needed to protect the environment and the rights, health, and wellbeing of Indigenous peoples.

It is Grassy Narrows' position that the proposed AEX activities are substantial and have the potential to cause significant and long-lasting adverse effects within federal jurisdiction. As such, an Impact Assessment for AEX activities at the Great Bear Project is necessary.

I. Proposed Advanced Exploration Activities

The proposed Advanced Exploration activities and their components include the following:

- A bulk sample of 60,000 t;
- About 1,000,000 t of reactive waste rock;
- Roughly 400,000 t of likely reactive overburden;
- Ore stockpile constructure and use;
- Water management infrastructure construction and use;
- Underground working and portal development;
- Water takings;
- Discharge of excess site water to the Chukuni River;
- Water-treatment effluent; and
- Many kilometers of underground ramps and drifts with hundreds of thousands of square meters of reactive mine walls (collectively, the "AEX Activities.")

The proposed activities are substantial – the Company plans to extensively mine valuable ore, which it refers to as "bulk sampling," and to construct infrastructure that is central to the capacity of the mine, during the Advanced Exploration stage. The potential impacts of these activities are significant and widespread.

i. Potential impacts of proposed Advanced Exploration Activities

Grassy Narrows has provided you with four expert reports from Dr. Kevin Morin, enclosed, concerning metal leaching and acid rock draining ("ML-ARD"), water quality and hydrogeology with respect to the Great Bear Gold Project. Dr. Morin is a well-known and respected geoscientist with more than 45 years of experience in the fields of water contamination, contaminant migration, hydrogeology, geochemistry, environmental impact assessment, and computer modelling related to mining and industrial activity.

The examples below are just some of the many potential environmental impacts of the proposed AEX Activities identified by Dr. Morin in his reports:

- Around 1,000,000 tonnes of waste rock will be mined along with the bulk sample and "at least some significant portion is expected to seriously contaminate infiltrating rainfall and snowmelt by ML-ARD for several years." (Morin, April 11 Report)

- Waste rock stored on the surface "will oxidize and begin releasing ML-ARD of some unknown strength and intensity, including a currently unknown number of elevated and potentially toxic elements." (Morin, March 27 Report)

- The potential for "severe environmental impacts" by this waste rock is ongoing. The waste rock would be placed back underground. Rising underground water levels would flush years of accumulated contaminants off this rock and then flow into the surrounding environment. (Morin, April 11 Report)

- When placed underground, PAG rock will "likely continue to release severe ML-ARD until submerged, at which point a relatively huge amount of accumulated contamination would be released into the underground water. This "major risk to water quality" will "contaminate large surrounding areas." (Morin, April 23 Report)

- At least 400,000 tonnes of overburden will be piled at the surface. Dr. Morin initially estimated that, based on percentages in Canada, there is a "50% probability that significant portions of the overburden will contaminate water with ML-ARD." (Morin, April 11 Report) Upon reviewing the latest version of the Company's Closure Plan, Dr. Morin has concluded that "seriously contaminated water and dust from the Great Bear overburden stockpiles will be allowed to flow into the surrounding environment." He is currently finalizing a report in response to the Closure Plan which is forthcoming.

- Dewatering during exploration would "significantly dewater surface creeks and lakes including their environmentally important baseflow." (Morin, April 25 Report)

- Elevated ammonia in AEX mining-related drainages is accompanied by elevated levels of nitrate and nitrite. Elevated concentrations of nitrate can "devastate aquatic ecosystems." (Morin, March 27 Report) As well, "aqueous sulphate concentrations can increase the methylation of mercury." (Morin, April 11 Report) These contaminants and their potential impacts are not addressed in the technical documents provided by the Company.

- There is a "false statement" in the Detailed Project Description (November 2023) that "there will be no sources of mercury from the ore processing when in fact the tailings and concentrate from the process will contain mercury. The processing could even cause mercury and other elements to leach more quickly and become more mobile." (Morin, April 23 Report)

- Dr. Morin agrees that Kinross' planned discharge of treated effluent into the Chukuni River "would add to cumulative effects, which is a particular concern of Grassy Narrows First Nation." (Morin, April 25 Report)

Dr. Morin's reports raise serious concerns regarding the size and scope of the AEX

Activities and their potential environmental impacts. Dr. Morin finds that the studies used to assess the risks of metal leaching and acid rock drainage did not follow the methodology required by the law and cannot be relied upon to provide accurate information about risks and impacts. Dr. Morin is also concerned about the lack of information, which results in the inability to reliably assess ML-ARD and associated impacts. As a result, "the ML-ARD and surrounding impacts have likely been significantly underestimated and even ignored in some cases." He concludes that "this is one reason that Advanced Exploration at the Great Bear Project should not proceed at this time." (Morin, March 27 Report)

We also draw your attention to a recent report by Dr. Brian Branfireun which found that the Dryden pulp mill has been discharging effluent into the English-Wabigoon River System which contains sulphates and organic waste that 1) significantly contribute to the methylation of mercury in the river system, and 2) significantly increase the levels of methylmercury – the most toxic form of mercury – in the fish that Grassy Narrows people rely on for their sustenance, livelihood, cultural practices, and Treaty rights. (Branfireun, May 14, 2024 Report) This raises additional concerns for Grassy Narrows regarding the effluent that will be discharged into the river system from the Project, including AEX Activities, and potential adverse interactions with other substances and contaminants in the river system. For example, Dr. Morin confirms that AEX Activities will release sulfate to the Chukuni river which flows into the English River and merges with the Wabigoon River near Grassy Narrows. This risks further elevating already elevated sulfate levels which fuel increased methylation of mercury in sediments which are in turn elevated due to historical mercury releases from Dryden.

Grassy Narrows is extremely concerned that the Project is moving ahead swiftly in the absence of required information and at great risk to the environment, health, and inherent, Treaty and Indigenous rights of Grassy Narrows. Grassy Narrows maintains its position that the proposed AEX Activities, including the extensive mining of valuable ore that the company is calling "bulk sampling", must be subjected to a rigorous impact assessment.

II. The proposed Advanced Exploration Activities are designated projects under the *Impact Assessment Act*

i. The proposed activities are designated activities pursuant to the *Physical Activities Regulations*

Kinross is constructing a new mine.

The proposed AEX Activities constitute the construction of a new mine, pursuant to section 18 of Schedule 2 to the *Physical Activities Regulations* (the "Regulations"). Section 18 designates:

> 18. The **construction**, operation, decommission and abandonment of:

> (c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore **production capacity** of 5 000 t/day or more; (emphasis added)

In its Detailed Project Description (January 2024) at Table C.1, Kinross provides a detailed list of all proposed mine facilities. Kinross contemplates that many of these facilities from Advanced Exploration will or may continue to be used for the actual operation of the mine, including the following:

- Underground and open pit mine facilities, including surface portals, ramps and underground workings, compressor facility, mine dry, and mine air heating;
- Advanced Exploration stockpiles;
- Buildings such as trade/maintenance shop/wash bay, warehouse/storage building, offices, laydown areas and parking, and explosive storage (surface and underground);
- Tailings and site water management facilities such as underground sumps, water ponds, wells, ditching, pumps, pipelines, effluent treatment plant, effluent discharge pipeline, and water supply well(s);
- Waste management facilities such as temporary solid waste storage/waste transfer facility and domestic sewage treatment;
- Power supply facilities, such as emergency diesel-fired generators, natural gas power supply pipeline and generation facilities, onsite electrical distribution lines, and electrical substation and transmission line to E2R (as needed);
- Fuel and reagents facilities including regents and chemicals, propane tank farm, and fuel station, diesel and gasoline fuel tanks;
- Haul roads, pipelines, and utility corridors;
- Communications infrastructure;
- Core shack;
- Accommodations and camp; and
- Off-property infrastructure, such as a pipeline to Enbridge's natural gas metering station and 115kv transmission line and related infrastructure.

Advanced Exploration, as proposed by Kinross, includes the construction of major infrastructure critical to the operation of the mine, including the construction of portals and ramps, sumps, effluent treatment plants and discharge pipelines, and natural gas pipelines that form the core infrastructure of the proposed mine. As opined by Dr. Morin, these proposed AEX Activities, and the facilities proposed to complete said activities, are far beyond the scope of Advanced Exploration. He states in his April 23 Report that: "In reality, four years of this type of advanced exploration is essentially being used as the first phase of the underground mine plan so that there is relatively little delay to start mining should the project be approved." (emphasis added)

The Detailed Project Description (January 2024) estimates that the production capacity of the Project will be significant: "Metal ore extraction from the open pit and/or underground mine is planned at a nominal rate up to 15,000 tpd or less. When the open

pit(s) and underground mine are operating, there may be daily peaks of ore extraction (maximum rate of extraction) reaching up to 60,000 tpd." (emphasis added) This means that the ore production capacity of the new mine whose construction is being carried out in large part during AEX is 60,000 tpd.

Thus, Kinross is proposing to **construct** the core infrastructure of a new mine with an ore production **capacity** of greater than 5,000 t per day. They are calling this body of work AEX in an apparent attempt to evade the Impact Assessment process for this work. But the work is clearly the core work of mine construction including the portal and multi-kilometer underground ramp through which the mining will occur immediately after the so-called AEX phase.

Kinross' proposed AEX Activities can be clearly distinguished from the circumstances underlying the Supreme Court of British Columbia's decision in *Canada v Taseko Mines Limited*. At issue in *Taseko* was whether the activities contemplated under the proponent's Work Application were connected to the carrying out of the mine's operations. The Advanced Exploration Activities proposed by Kinross are significantly larger, more permanent, and far more central to the operation of the mine than in the *Taseko* case.

The work proposed in *Taseko* was exploratory in nature, largely on the surface, and included test pits and drill holes that would be backfilled, temporary access trails, construction of roads that were wider than expected, diamond drilling, and impermanent camp structures. This is distinguishable to the circumstances at hand. Kinross proposes to construct permanent infrastructure, including the construction of the primary portals, ramps, and pipelines, which it explicitly states will be used for the actual operation of the mine and are, in fact, the main infrastructure of the mine. They are the same portal and multi-kilometer underground ramp through which all the underground mining will occur. This is not preliminary to the actual construction of the mine. It *is* the construction of the key components of the mine.

This is not Advanced Exploration. This is the construction of critical infrastructure that will be used to operate the Great Bear Gold mine. The AEX Activities are designated pursuant to section 18(c) of Schedule 2 of the Regulations.

Any interpretation to the contrary would betray the plain meaning of section 18(c) and would place no meaningful limit on the activities that a proponent can label as AEX in order to obtain an effective exemption from an Impact Assessment for those construction activities regardless of the extent of the adverse risks they pose in areas of purported federal jurisdiction.

Kinross is engaging in the "first phase of mining."

The proposed AEX Activities are substantial and exceed the typical scope of Advanced Exploration. In his reports, Dr. Morin raised concerns regarding the scope of the proposed activities, and opined that the activities could more appropriately be characterized as the "first phase of mining":

- Large bulk sample: “Advanced Exploration at Great Bear is expected to remove up to 60,000 tonnes of ore as a bulk sample, requiring approximately four years. Please note that in some provinces no tonnage more than 10,000 t is allowed during each five year period [as part of bulk sampling]. As a result, such a relatively large bulk sample at Great Bear, with a gold value likely worth tens of millions of dollars that will likely be recovered, spanning at least four years is considered more of a first phase of mining in some jurisdictions rather than advanced exploration.” (Morin, March 27 Report)

- “Remarkable ratio” of waste rock: **“**[T]he mining of 60,000 t of ore at Great Bear would result in approximately 1,000,000 t of waste rock, which is a remarkable ratio of roughly 17 tonnes of waste : 1 tonne of ore. This further shows that Advanced Exploration at the Great Bear Project can be considered more like the first phase of mining. The three reasons given by Kinross Gold for this large bulk sample do not explain the need for this volume of mining.” (Morin, March 27 Report)

- Increasing volume of overburden: “For some unexplained reason the volume of overburden is rising substantially. Initially the tonnage was around 200,000 tonnes. In the November 2023 draft Closure Plan it has roughly doubled to 400,000 tonnes. Why is this tonnage so large when Advanced Exploration is an underground operation with only two portals?” (Morin, March 27 Report)

- Activities inconsistent with Advanced Exploration: **“**In the Project Definition (see Section 2 of this MDAG review), Kinross Gold provided three reasons for a relatively huge bulk sample along with 17 times more waste rock and now 7 times more overburden. However, as explained above, these reasons do not make sense. For example, Kinross says that bulk samples help to prove the continuity of underground access gold deposits and are very important to potential financiers. Yet, most of the proposed underground workings are focussed into two small lateral areas and not throughout the ore zone “to prove the continuity”.” (Morin, April 23 Report)

The large size, scope, duration, and risks of adverse impacts from AEX Activities require an impact assessment. It is clear from Kinross’ technical documents that the Company plans to take far more ore than they need for feasibility studies, ore that has a value worth ten of millions of dollars. As well, Kinross is not planning to remove the ore in a manner or amount that is justified by their feasibility goals. It appears that the Company is planning to extract ore for its value for sale during the Advanced Exploration process.

Grassy Narrows is concerned that Kinross is significantly exceeding typical Advanced Exploration activities which will have greater potential harms to the environment and areas of federal jurisdiction. Exemption of these activities from the Impact Assessment would defeat the purpose of an IA, and make the IA incapable of assessing and preventing adverse impacts in areas of federal jurisdiction.

ii. The proposed activities should be designated by the Minister

In addition to the above, we formally request that the Minister designate the AEX Activities, pursuant to section 9(1) of the *Impact Assessment Act*, as they have the potential to cause adverse effects within federal jurisdiction. Grassy Narrows has serious concerns about these adverse effects.

If the Minister chooses to pause consideration of new designation requests, then the Impact Assessment and the AEX work should be suspended until the amended legislation is in force and the Minister is willing to exercise the full set of tools required to protect areas of federal jurisdiction from adverse impacts, including the power to designate activities.

Grassy Narrows' concerns with regards to adverse effects within federal jurisdiction are outlined in greater detail in our March 6, 2023 submission, enclosed. These concerns apply similarly to the AEX Activities and are summarized below:

- Potential impacts on species at risk and their habitats, including Woodland Caribou (particularly the Sydney Caribou Herd whose range is currently disturbed), Wolverine, Sturgeon, and others;

- Potential impacts on inland fisheries and fish habitat, which Grassy Narrows people rely on and which play an important role in our way of life, sustenance, and livelihood, and which have already been harmed by mercury poisoning and industrial activity as a result of the Crown's failures to protect our fish in the past;

- Potential impacts to Indigenous peoples and the lands reserved for them, including impacts to Grassy Narrows peoples, lands, health, culture, wellbeing, traditional foods, and waters that flow into and through our reserve and which can impact our reserve; and

- Potential impacts to migratory birds and transboundary flows.

We also urge the Minister to consider the environmentally sensitive location in which the proposed activities take place, particularly the cumulative impacts of mercury poisoning, logging, mining, damming, diversion, and other industrial activity that have had adverse effects on areas of federal jurisdiction, including downstream impacts to Grassy Narrows lands, waters, fish, animals, and people. These cumulative effects already exceed any reasonable threshold and have had severe impacts on Grassy Narrows. The Project, and multiple other proposed projects in the watershed, including at least three other gold mines, a lithium mine, and a high level nuclear waste disposal site, threaten to raise the level of cumulative effects even further past the point of where Grassy Narrows people can safely and meaningfully exercise their rights and live their Anishinaabe way of life.

The Agency has previously provided guidance that the Minister may consider potential impacts to Indigenous peoples and in particular, whether the project "contributes to

existing cumulative effects within federal jurisdiction." We urge the Minister to do so in the circumstances. It is well recognized that Grassy Narrows is among Canada's most extreme cases of poisoning from environmental pollution. If the power of the Minister to designate activities is not used here to protect Grassy Narrows, it would generate a perception that this power is arbitrary and meaningless.

Due to the many important areas of claimed federal authority that are at serious risk of adverse impacts in the proposed AEX Activities, and due to the vulnerability of, and cumulative impacts on, Grassy Narrows, it is essential that a robust and comprehensive federal Impact Assessment is carried out. We urge the Minister to consider the adverse impacts of the proposed activities on the rights of Grassy Narrows, pursuant to section 9(2) of the *Impact Assessment Act*, and designate the AEX Activities pursuant to section 9(1) of the Act.

An Impact Assessment of Advanced Exploration Activities is necessary.

An Impact Assessment is necessary to ensure that potential environmental impacts under federal jurisdiction are adequately assessed. Ontario does not require a provincial environmental assessment to be performed for AEX Activities (nor for mining projects) and while the Company must obtain some permits for certain peripheral parts of the Advanced Exploration process, these permits exist in isolation, do not address the primary activity of extracting ore, waste rock, and overburden, and do not consider the broader context and cumulative impacts on our rights, our health, and our wellbeing and other adverse impacts within areas of federal jurisdiction.

Grassy Narrows strongly objects to the prospect of project splitting (or "piecemealing" or "segmenting") that would deliberately divide the proposed physical activities at the Great Bear site location into smaller or discrete components, some of which may be subject to an impact assessment and some which would not. For the purposes of implementing sound and credible environmental planning in this case, it is imperative to ensure a complete and robust assessment of the direct, indirect, and cumulative adverse effects of all such functionally related activities on matters of federal jurisdiction, as outlined above. In order to be meaningful and to achieve its purpose, the scope of the Impact Assessment must start where the activities that threaten adverse impacts in areas of federal jurisdiction begin.

In Grassy Narrow's view, this objective can only be secured if the Minister confirms that AEX Activities are already captured within the Impact Assessment requirements that apply to this designated project, or, in the alternative, if the Minister issues an order designating AEX Activities as a project to which the *Impact Assessment Act* applies.

We are deeply concerned that the proposed AEX Activities will fall through the cracks of the regulatory process, but for a comprehensive and fulsome federal Impact Assessment.

We urge the Agency and the Minister to recognize the proposed AEX Activities as designated pursuant to the *Impact Assessment Act.* We implore you to carefully consider

Dr. Morin's reports and our submissions, as well as your duties to Grassy Narrows under Treaty #3 and obligations to uphold the treaty promises, act honourably in your dealings with Grassy Narrows, and find a path forward that is consistent with the spirit of reconciliation. We urge you to act now to ensure that no further harm comes to Grassy Narrows under your watch.

We look forward to your timely response.

CAVALLUZZO LLP

Jackie Esmonde and Sydney Lang
JE/SL/ss

Cc:

Grassy Narrows Lands Protection Team
Joseph B. Fobister Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Supervisor (mike.fobister@googlemail.com)
Dan Mossip-Balkwill, Advisor (dan.mossip.balkwill@gmail.com)
David Sone, Advisor (david.sone@gmail.com)

Joseph Castrilli, Legal Counsel (castrillij@sympatico.ca)
Rick Lindgren, Legal Counsel (r.lindgren@sympatico.ca)

Ministry of Environment and Climate Change
Jean-Francois Tremblay, Deputy Minister (jf.tremblay@ec.gc.ca)
Lawrence Hanson, Associate Deputy Minister (lawrence.hanson@ec.gc.ca)

Impact Assessment Agency of Canada
Natalie Boyd, Project Manager (natalie.boyd@iaac-aeic.gc.ca)
Ian Lindsay, Senior Consultation Analyst (ian.lindsay@iaac-aeic.gc.ca)

Kinross/Great Bear
Aaron MacDonnell, Director of Environmental Services
(aaron.macdonnell@kinross.com)
Luke Crosby, Legal Counsel (luke.crosby@kinross.com)
David Bursey, Legal Counsel (burseyd@bennettjones.com)

Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Agence d'évaluation d'impact du Canada
Région de l'Ontario
600-55, rue York
Toronto (Ontario) M5J 1R7

August 08, 2024 **Sent by email**

Aaron MacDonell
Director, Environmental Services, Great Bear Resources
Kinross Gold Corporation
25 York Street, 17th Floor
Toronto ON M5J 2V5
aaron.macdonell@kinross.com

Dear Aaron MacDonell:

Subject: Designation Request for the Proposed Great Bear Advanced Exploration Project - Please Reply by August 30, 2024

The Minister of Environment and Climate Change (the Minister) received a request to designate the proposed Great Bear Advanced Exploration Project (the physical activity referred to as the Project) under subsection 9(1) of the amended *Impact Assessment Act* (IAA). The designation request letter from the legal counsel of Asubpeeschoseewagong Anishinabek (enclosed) will be publicly accessible from the Canadian Impact Assessment Registry Internet site (Reference 88710): *https://iaac-aeic.gc.ca/050/evaluations*.

Designation Request Process

Under subsection 9(1) of the amended IAA the Minister may, by order, designate a physical activity that is not prescribed in the *Physical Activities Regulations*. The Minister may do this if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or direct or incidental adverse effects that warrant the designation. In accordance with subsection 9(4) of the amended IAA, it is expected that the Minister will respond, with reasons, to the request by November 6, 2024.

However, as per the limitation of subsection 9(7) of the amended IAA, the Minister must not make the designation if (a) the carrying out of the physical activity has substantially begun; or (b) a federal authority has exercised a power or performed a duty or function conferred on it under any Act of Parliament, other than the amended IAA, that could permit the physical activity to be carried out, in whole or in part.

.../2

The Impact Assessment Agency of Canada (IAAC) has reviewed available information and determined that the limitation of subsection 9(7) does not apply to this request.

IAAC will seek and review information about the Project from the requester, Kinross Gold Corporation, and Indigenous communities, federal authorities, and provincial ministries to inform IAAC's recommendation to the Minister on whether the Project should be designated.

If designated, to proceed with the Project, firstly Kinross Gold Corporation would have to submit an Initial Project Description to IAAC to commence the planning phase of the amended IAA. In this case, the planning phase would include IAAC determining whether a federal impact assessment is required for the Project.

Additional information regarding the process for designation requests can be found in IAAC's Operational Guide for Designating a Project under the *Impact Assessment Act* [1].(Please note that currently, IAAC is updating its procedures, policy and guidance documents to reflect the June 2024 amendments to the IAA, and to the federal assessment process.)

Information Request, as per Subsection 9(3) of the Amended IAA
IAAC understands that Kinross Gold Corporation is proposing to undertake an advanced exploration program in Ontario (southeast of the municipality of Red Lake) to obtain additional information on known mineralized zones and to extract a bulk ore sample of up to 60,000 tonnes by underground mining methods.

In accordance with subsection 9(3) of the amended IAA, please provide by **August 30, 2024**, available project information regarding potential,

- non-negligible adverse changes to:
  - fish and fish habitat;
  - aquatic species at risk;
  - migratory birds;
- non-negligible adverse changes to the environment that would occur on federal lands;

.../3

[1] *https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/designating-project-impact-assessment-act.html*

- non-negligible adverse changes – that are caused by pollution – to boundary waters or international waters, or to interprovincial waters;
- non-negligible adverse impacts, resulting from any change to the environment, on Indigenous Peoples, including changes to the environment on:
    - physical and cultural heritage;
    - current use of lands and resources for traditional purposes;
    - structures, sites or things of historical, archaeological, paleontological or architectural significance; and
- non-negligible adverse changes to the health, social or economic conditions of Indigenous Peoples.

Please also include available information regarding the issues raised by the requester in the enclosed letter, as well as information about potential adverse effects (changes to the environment or to health, social or economic conditions) that are directly linked or necessarily incidental to a federal authority's exercise of a power, performance of a duty or function, or provision of financial assistance, that would enable the carrying out of the Project, in whole or in part.

IAAC further requests the following:

1. a) Information about key project activities (including maximum daily generation of ore and mine rock); maps; layouts of the location of project components; land tenure; zoning; estimated timelines for planning, construction, operation, decommissioning and abandonment.

   b) A list of project activities and components with indication of which activities and components would remain present and operational, as is or changed, over the life of the Great Bear Gold Project should it proceed.

2. A list of all regulatory approvals (federal, provincial, municipal, other) and any federal financial assistance that would be required for the Project and the associated project components or activities.

3. a) For each regulatory approval that would be required, provide the following information:
    i. Name of the licence, permit, authorization or approval, the related legislative framework, and the responsible jurisdiction.

.../4

ii. Whether it would involve an assessment of any of the effects outlined in the paragraphs above, and if so, a general description of the assessment that you intend to undertake. Would conditions be set and if yes, what effects would those conditions address?

iii. Whether public and Indigenous consultation would be required and if yes, provide information on the approach you intend to take, including with respect to issues resolution. (If any steps were taken, please provide a summary, including the issues raised and your responses).

b) Identify whether any licence, permit, authorization or approval likely required for the Project would address any of the following:

i. Metal leaching and acid rock generation from waste rock and overburden stockpiles;
ii. Contamination of groundwater and surface water from drainage, run-off, seepage and effluent discharge;
iii. Dewatering impacts on local water systems;
iv. Ammonia, nitrates, nitrites, sulphates and mercury contamination of local water systems and cumulative effects from pre-existing contaminants;
v. Impacts on air quality;
vi. Impacts on species at risk, including woodland caribou, and wolverine;
vii. Impacts on Indigenous Peoples' traditional use of lands and resources, and safe access to traditional foods and sites of importance;
viii. Impacts to migratory birds.

If yes, discuss, in general, the benchmarks or standards that you intend to meet (or would be expected to meet). If the Project is anticipated to cause permanent changes or adverse cumulative effects, how you intend to manage those impacts.

4. For all federal licences, permits, authorizations, approvals, and/or financial assistance that may be provided for the Project, describe any anticipated direct or incidental adverse effects (including changes to health, social and economic conditions) that may occur as a result.

   What steps have you taken to consult with the public? What steps do you plan to take during all phases of the Project? Are you aware of any public concerns in relation to the Project? If yes, provide an overview of the key issues and the way in which (in general terms) you intend to address, or have addressed, these concerns.

5. What steps have you taken to consult with Indigenous communities, and which Indigenous communities have you contacted? What steps do you plan to undertake during all phases of the Project? Are you aware of any Indigenous community concerns in relation to the Project? If yes, name the communities, and provide an overview of the key issues and the way in which (in general terms) you plan to/ or have addressed their concerns.

6. Describe any other comments you have received in relation to environmental effects or impacts to the public or Indigenous Peoples and describe how you intend to address/ or have addressed them.

7. Explain your view on whether the Project should be designated under the amended IAA.

Important Note: All records produced, collected or received in relation to the designation request process – unless prohibited under the *Access to Information Act* or *Privacy Act* – will be considered public and may be released. Should you wish to provide any comments or documents that contain confidential or sensitive information that you believe should be protected from release to the public, please contact IAAC before submitting the information. Information marked as confidential will not be accepted without prior contact made with IAAC.

.../6

Please use the email address *DesignationOntario@iaac-aeic.gc.ca*, to provide IAAC with information regarding this file. Further questions regarding this request can be directed to Dietrich Maahs, Project Manager, at 647-239-7158 or *designationontario@iaac-aeic.gc.ca*.

Sincerely,

Sen, Amy

Digitally signed by: Sen, Amy
DN: CN = Sen, Amy C = CA
O = GC OU = EC-EC
Date: 2024.08.08 14:41:34 -04'00'

Amy Sen
Acting Director

Enclosure: Request Letter for Designation of Project (10 pages)

c.c.: Jeremy Brans, Kinross Gold Corporation
Sheila Daniel, WSP E&I Canada Limited

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

For:
Mayor Fred Mota, Municipality of Red Lake
Trilbee Stirling-Kattler, CAO, Municipality of Red Lake

This memo is for your information and not intended for redistribution.

Key Messages

- Kinross Great Bear is seeking support from all levels of government to ensure permits are processed and issued in a timely manner.
- The project continues to progress at pace to become a multi-generational operation.
- We continue to target 2024 to commence construction of advanced exploration phase (underground). This is a crucial step in understanding the ore body's characteristics and will guide future mining operations. The bulk sample reflects our commitment to advancing the project and ensuring it meets the highest safety and environmental standards. We're also planning a world-class water treatment system to protect both local and downstream water users.
- Great Bear's current target for commercial production is 2029.
- The project continues to show very compelling geological results, and compelling reasons to assume the resource will continue to grow significantly as we progress further work.
    - We recently announced that the Year-over-year inferred resource estimate increased by 45%, adding more than one million ounces primarily driven by high-grade underground additions.
    - Mineral resource estimate to approximately 2.8 million Au oz. of measured and indicated mineral resources, and to approximately 3.3 million ounces of inferred mineral resources.

Regulatory

- Federal
    - Received Tailored Impact Statement Guidelines in August 2024 from the Impact Assessment Agency of Canada.
    - Great Bear is working collaboratively with the Indigenous communities of Wabauskang First Nation and Lac Seul First Nation on a Anishinaabe-Led Impact Assessment process to supplement and support Nation decision making on the Project.

- Provincial
    - Kinross continues to engage the Province related to a series of critical permits in process to allow us to commence construction of advanced exploration phase in the summer of 2024.
    - We are seeking support from all levels of government to ensure these permits are processed and issued in a timely manner to allow us to remain on schedule.

Permitting and Power Considerations

- The regulatory pathway, and power allocation remain the two critical pathways to achieve 2029 first production.
- Power:
    - We have received the power allocation we need for Advanced Exploration from IESO and we continue to make good progress with Hydro One in relation to a solution for the longer term power needs for the main project.
    - The most likely scenario at this time is the construction of a new 115 kv line to Red Lake along the existing corridor,
    - It is expected any advancement or decision on a transmission project would be led by Hydro One in partnership on with neighboring Indigenous communities.
    - This solution would offer multiple benefits to the region including the community of Red Lake and allow Great Bear to maximize electrification of the operation.

Consultation Considerations

- Wabauskang First Nation and Lac Seul First Nation
    - WFN and LSFN remain very supportive of the project. Letters of support for Advanced Exploration have been issued and submitted to relevant Agencies.
- Grassy Narrows First Nation
    - Great Bear continues to engage with GNFN, GNFN key consideration is ongoing potential impacts to the watershed, and the potential mercury considerations with the Project. Great Bear has confirmed that mercury will not be used in the plant process, and has taken significant steps to minimize downstream risk in both the AEX program, and future development of the Project.
- Northwestern Ontario Metis Community
    - Great Bear continues to engage with the NWOMC, it is expected that a framework agreement will be executed to guide dialogue with the NWOMC and Metis citizens as part Project development.

WABAUSKANG FIRST NATION
P.O. Box 339, Ear Falls, ON P0V 1T0

LAC SEUL FIRST NATION
P.O. Box 100, Hudson, ON P0V 1X0

August 29, 2024

The Honorable Steven Guilbeault
Minister of Environment & Climate Change
200 Sacré-Coeur Boulevard
Gatineau, QC K1A 0H3
VIA EMAIL: minister-minister@ec.gc.ca

Anjala Puvanathan
Director, Ontario Region
600-55 York Street
Toronto, ON M5J 1R7
VIA EMAIL: greatbear@iaac-aeic.gc.ca

Boozhoo,

RE: Panel Review for the Great Bear Project

It has come to our attention that the Impact Assessment Agency of Canada is considering a request to appoint a panel to review for the Great Bear Project.

The Great Bear Project is located in the heart of our ancestral homeland territories. We have forever governed and managed these territories through our own laws, and our community members have lived in relationship with the lands and waters of this place since time immemorial - fostering deep, reciprocal, kinship relationships with all of the beings with whom we share those lands and waters. We are the voice of these lands.

We have a sacred responsibility to care for this land, as well as a right to benefit from it.

Over the last several years we have built a mutually respectful relationship with Kinross. Kinross has agreed to support our undertaking to conduct an Anishinaabe-led Assessment of the proposed Great Bear Project. The purpose of this assessment is to determine the impacts of the Project on our constitutionally protected rights and on our responsibilities

WABAUSKANG FIRST NATION
P.O. Box 339, Ear Falls, ON P0V 1T0

LAC SEUL FIRST NATION
P.O. Box 100, Hudson, ON P0V 1X0

and laws. We have designed the Anishinaabe-led Assessment process to complement an Agency-led review of the Great Bear Project, not a panel review.

Kinross has agreed to respect the final decision of the Anishinaabe-led Assessment. Given this agreement with Kinross, we do not see a panel review as necessary for the Crown to discharge its duty to consult and accommodate and in fact could well interfere with, pose an obstacle to or be deemed by some to supersede our own Anishinaabe-led Assessment which would be very harmful to the First Nations and to our relationship with Kinross.

Miigwetch,

Chief Bill Petiquan
Wabauskang First Nation

Clifford Bull
box SIGN 13KJQZ8W-46PYYR3P

Chief Clifford Bull
Lac Seul First Nation

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

3 Sept 2024

The Hon. Steven Guilbeault
Minister of Environment and Climate Change
200 Sacré-Coeur Boulevard
Gatineau QC K1A 0H

Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto, Ontario MSJ 1R7
Attention: Anjala Puvanathan (Director, Ontario Region)

Re: Great Bear Resources Ltd. ("Great Bear") – Great Bear Gold Project ("Project") – Response to Asubpeeschoseewagong Netum Anishinabek ("ANA") Request for Review Panel – Supplemental Comment

For the reasons set out in Great Bear letter dated 9 July 2024, Great Bear maintains that a Review Panel is not required for this Project.

We understand that Lac Seul First Nation ("**LSFN**") and Wabauskang First Nation ("**WFN**") have filed or will file a submission in which they also explain that they also do not see a Panel review as necessary.

LSFN and WFN explain that they have designed an Anishinaabe-led Assessment ("**ALA**") process to complement an Agency-led review of the Great Bear Project, rather than a Panel review. Great Bear has agreed to assist LSFN and WFN on this ALA and will respect the outcome of that review.

Great Bear would be pleased to elaborate on any of the points in this letter.

Regards,

Luke Crosby
Great Bear Resources Ltd., *A Kinross Gold Company*

cc.

Joseph Fobister, Land Protection Team Lead, Asubpeeschoseewagong Netum Anishinabek
Mike Fobister, Land Protection Team Coordinator, Asubpeeschoseewagong Netum Anishinabek
Jackie Esmonde, Land Protection Team Legal Counsel, Asubpeeschoseewagong Netum Anishinabek
Dan Mossip- Balkwill, Land Protection Team Advisor, Asubpeeschoseewagong Netum Anishinabek
David Sone, Land Protection Team Advisor, Asubpeeschoseewagong Netum Anishinabek

Rudy Turtle, Chief, Asubpeeschoseewagong Netum Anishinabek
Chief Bull, Lac Seul First Nation
Luke Hildebrand, Travis Moffat and Charlotte Connolly, counsel to LSFN
Chief Petiquan, Waubuskang First Nation
Kate Kempton and Nick Leeson, counsel to WFN

Impact Assessment Agency of Canada
Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Agence d'évaluation d'impact du Canada
Région de l'Ontario
600-55, rue York
Toronto (Ontario) M5J 1R7

September 18, 2024 **ELECTRONIC MAIL**

Aaron MacDonell
Director, Environmental Services,
Great Bear Resources
Kinross Gold Corporation
25 York Street, 17th Floor
Toronto ON M5J 2V5
aaron.macdonell@kinross.com

Subject: Notification of the Minister's Response to the Request to Designate the Great Bear Advanced Exploration Project

Aaron MacDonell:

On June 17, 2024, the Minister of Environment and Climate Change (the Minister) received a request to designate the Great Bear Advanced Exploration Project (the physical activities referred to as the Project), pursuant to section 9 of the *Impact Assessment Act*.

In its analysis to inform the Minister, the Impact Assessment Agency of Canada (IAAC) considered the concerns expressed by the requester, publicly accessible websites, information available to IAAC or provided by federal authorities, Ontario provincial ministries, potentially affected Indigenous communities, Kinross Gold Corporation, and public concerns that are known to IAAC.

.../2

On September 18, 2024, the Minister responded that the Project does not warrant designation. The Minister's response to the request, with reasons, and the Analysis Report prepared by IAAC (enclosed with this email) are available on the Canadian Impact Assessment Registry Internet site[1] (Reference number 88710).

Further questions may be directed to Dietrich Maahs, the Project Manager for this file, at 647-239-7158 or *designationontario@iaac-aeic.gc.ca*.

Sincerely,

Sen, Amy

Digitally signed by: Sen, Amy
DN: CN = Sen, Amy C = CA
O = GC OU = EC-EC
Date: 2024.09.18 20:08:54 -04'00'

Amy Sen
Acting Director

Enclosure:

- Analysis Report

c.c.: Jeremy Brans, Kinross Gold Corporation

[1] Accessible here: https://iaac-aeic.gc.ca/050/evaluations/proj/88710

Ministre de l'Environnement et du
Changement climatique

Minister of Environment
and Climate Change

Ottawa, Canada K1A OH3

September 16, 2024

Luke Crosby
Vice President, Assistant General Counsel and Corporate Secretary
Kinross Gold Corporation
25 York Street, 17th Floor
Toronto Ontario M5J 2V5
Luke.Crosby@kinross.com

Luke Crosby:

Thank you for your letters received on July 9, 2024, and September 3, 2024, regarding the type of impact assessment required for the Great Bear Gold Project (the Project).

Taking into consideration the information available to date, including potential adverse impacts that the Project might have on the rights of Indigenous Peoples and opportunities for cooperation with the Government of Ontario, I have not referred the impact assessment of the Project to a review panel under subsection 36(1) of the amended *Impact Assessment Act*.

I am confident that an impact assessment process led by the Impact Assessment Agency of Canada (IAAC) is an effective approach for the assessment and management of the potential effects of the Project and that concerns raised by Asubpeeschoseewagong Netum Anishinabek, other Indigenous communities, and the public can be addressed through the opportunities for participation and collaboration outlined in the Indigenous Engagement and Partnership Plan[1] and Public Participation Plan[2], and the requirements of the Proponent set out in the Tailored Impact Statement Guidelines[3].

.../2

[1] Indigenous Engagement and Partnership Plan: *https://iaac-aeic.gc.ca/050/evaluations/document/158374*
[2] Public Participation Plan: *https://iaac-aeic.gc.ca/050/evaluations/document/158372*
[3] Tailored Impact Statement Guidelines: *https://iaac-aeic.gc.ca/050/evaluations/document/158375*

In addition, an independent External Technical Review may be used to examine the concerns related to the contaminants that may flow downstream from the Project and increase methylmercury where there are pre-existing elevated mercury concentrations and existing impacts on health of Indigenous Peoples. IAAC could also coordinate a technical working group and invite participation by Indigenous communities, federal and provincial experts, and the Proponent to identify issues, present, and share information and solutions.

I encourage you to continue working with Asubpeeschoseewagong Netum Anishinabek and the other potentially impacted Indigenous communities on the assessment of impacts to inform the Impact Statement. For example, this could include community-led studies on the potential increase of mercury methylation due to the Project.

Should you have any questions, please contact Natalie Boyd, Project Manager for the impact assessment, at 647-616-2471 or via email at GreatBear@iaac-aeic.gc.ca.

Sincerely,

The Honourable Steven Guilbeault, P.C., M.P. (il/lui/he/him)

BUILDING A LEGACY IN RED LAKE, ONTARIO

GREAT BEAR PROJECT

Proposed Open Pit and Underground Gold Mine

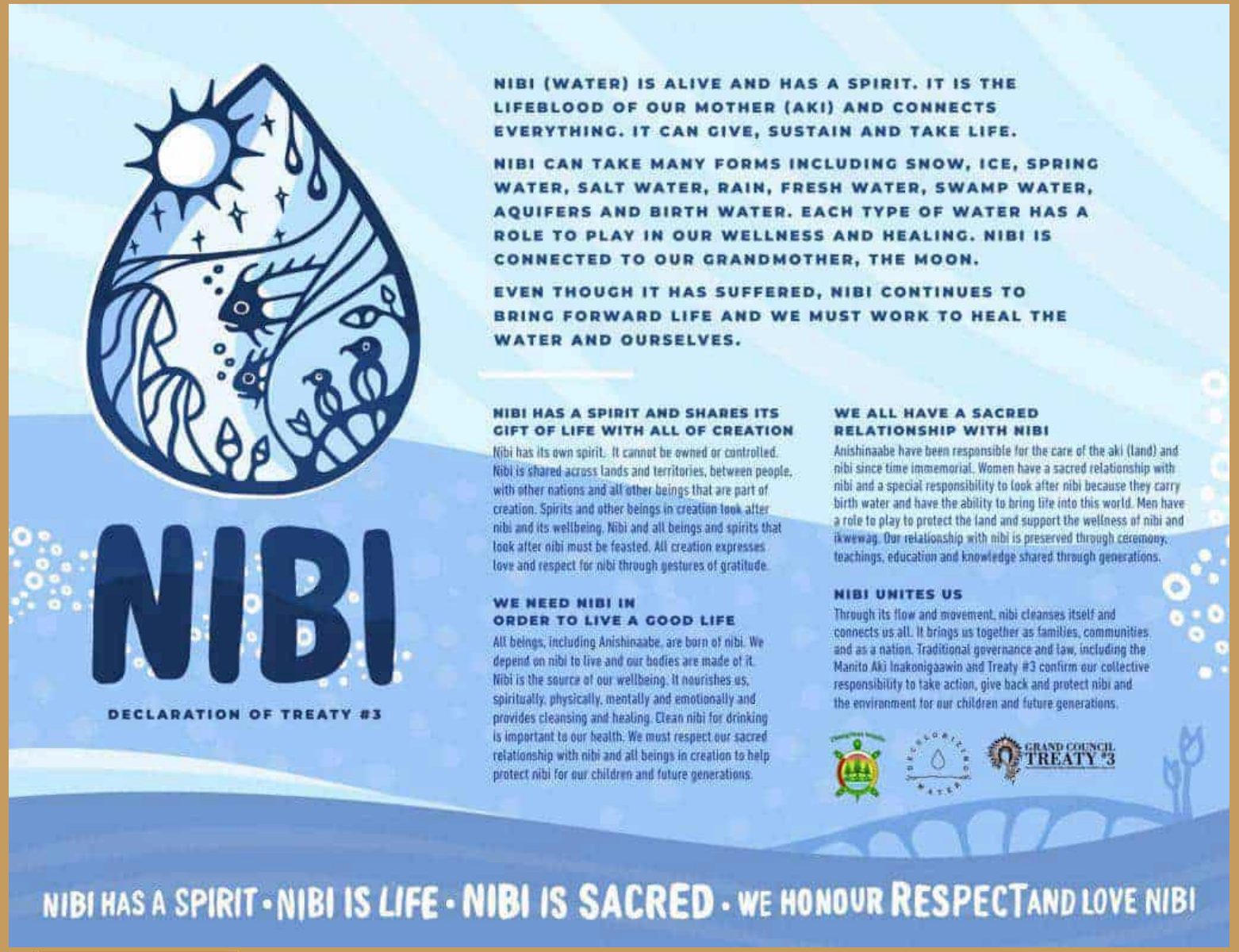
Red Lake Age-Friendly
Red Lake
October 7, 2024

KINROSS

We are honored to be working in the traditional territory of the collective members of the Anishinaabe Nation of Treaty #3 and the Northwestern Ontario Métis Community.

We and all our business partners recognize and respect the inherent and treaty rights of our partners in Wabauskang First Nation and Lac Seul First Nation.

We are committed to meaningful dialogue and working with Indigenous peoples, learning from Indigenous Knowledge and applying those learnings to our work across the organization.



We recognize and respect the importance of **Nibi** (water) to all creation.

We acknowledge our collective responsibility to protect Nibi today and for future generations.

Respecting Nibi as a fundamental source of life

Reducing consumption and waste to minimize the impact on Nibi

Reuse resources to promote sustainability of Nibi

Protect Nibi by engaging in practices that preserve its sanctity and purity

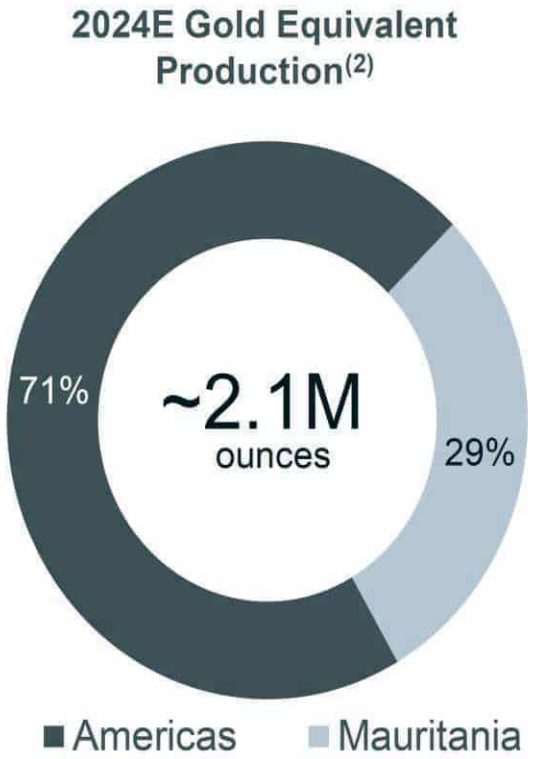
KINROSS

Agenda

1. Introduction
2. Who is Kinross?
3. Project Information & Updates
4. The Impact Assessment Process
5. Sustainability

KINROSS

Who is Kinross Gold



Fort Knox, U.S.A.
Manh Choh, U.S.A.
Great Bear, Canada
Curlew, U.S.A
Bald Mountain, U.S.A.
Round Mountain, U.S.A.
Tasiast, Mauritania
Paracatu, Brazil
La Coipa, Chile
Lobo-Marte, Chile

Operations
Development Projects

KINROSS

(1) Top tier defined as assets with Life of Mine (LOM) into the next decade and annual production averaging greater than 500koz and LOM AISC <$1000/oz (2024 nominal dollars)
(2) Refer to endnote #1

Our Vision for Great Bear

Long Life OP & UG Mine
Estimated production of ~300 – 500 koz per year

Strong Partnerships
With local Indigenous communities, rightsholders, and communities in which we operate

Low Emissions Mine
Via electrification and clean Ontario grid power

Local Employment
700 – 1,000 potential direct jobs created

Best in Class Mine
Driven by workforce skill, design, efficiency and automation

Creating a Lasting Legacy in Red Lake, Ontario

KINROSS

Great Bear Leadership Team

Ian Russell
Great Bear Resources
Site Manager

Aaron MacDonell
Director, Environmental Services

Ashley Moncrief
Environmental Manager

Debbie Coughlin
Human Resources Manager

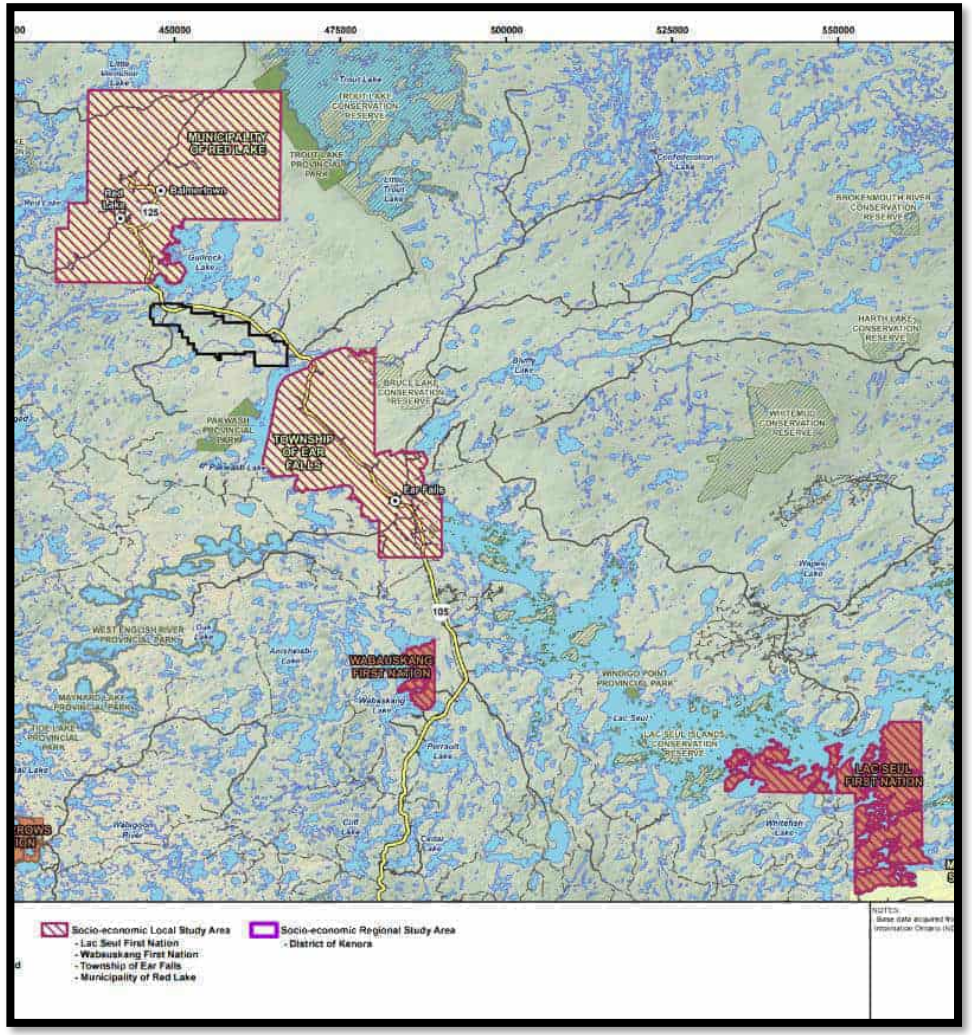
Matthew De Cecco
Advanced Exploration Manager

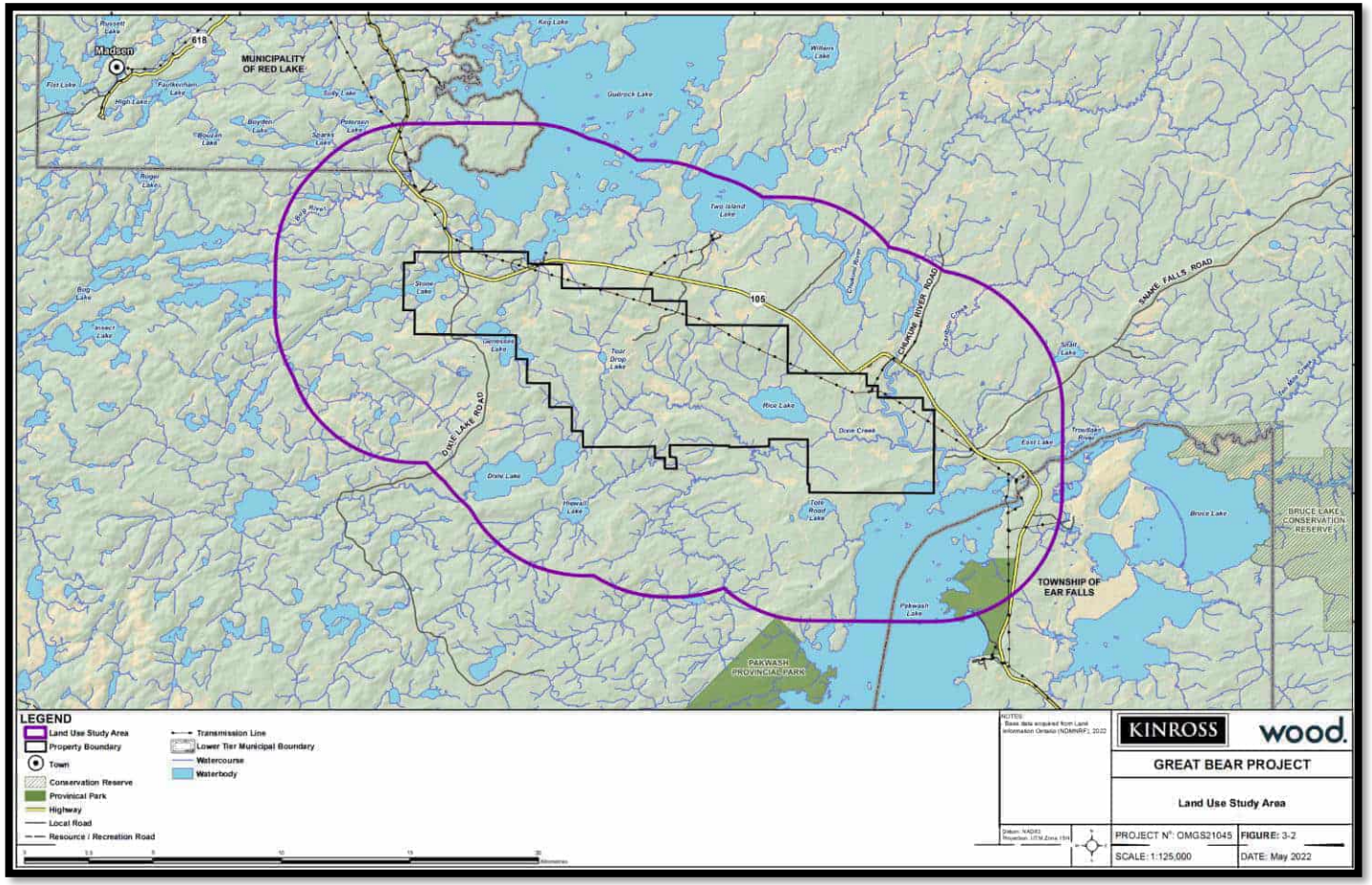
Mac Potter
External Relations Manager

Kinross Great Bear 3D Animation - April 2023

KINROSS

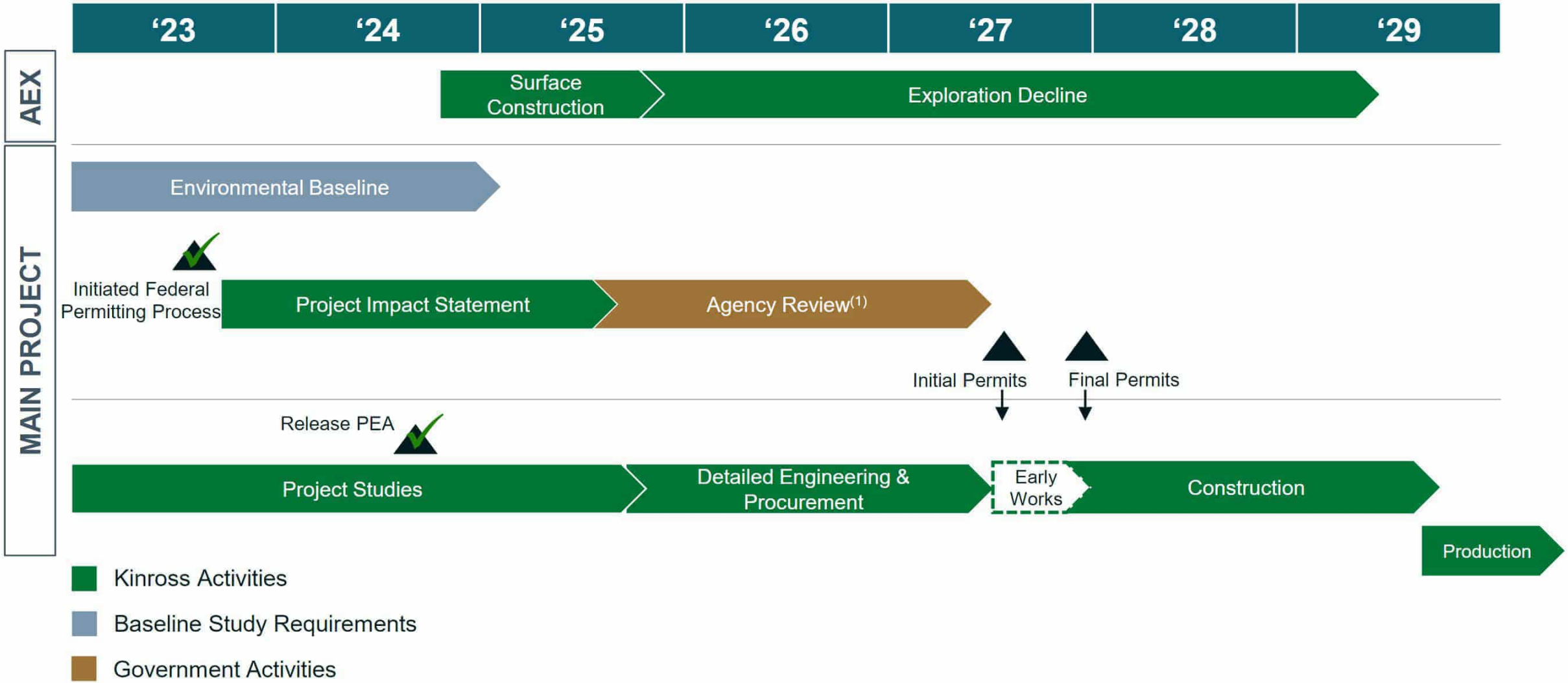
Location





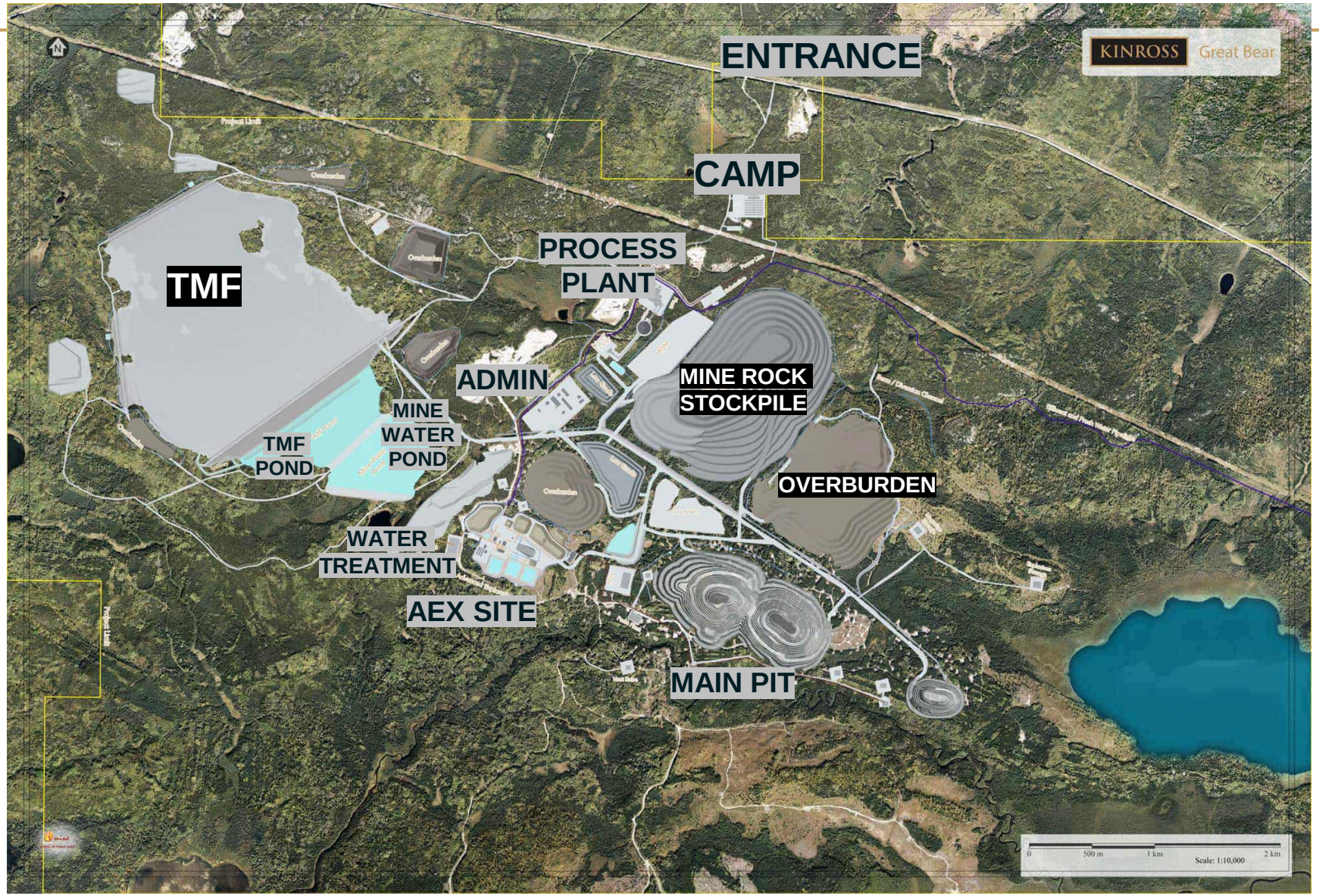
KINROSS

Conceptual Project Development Timeline



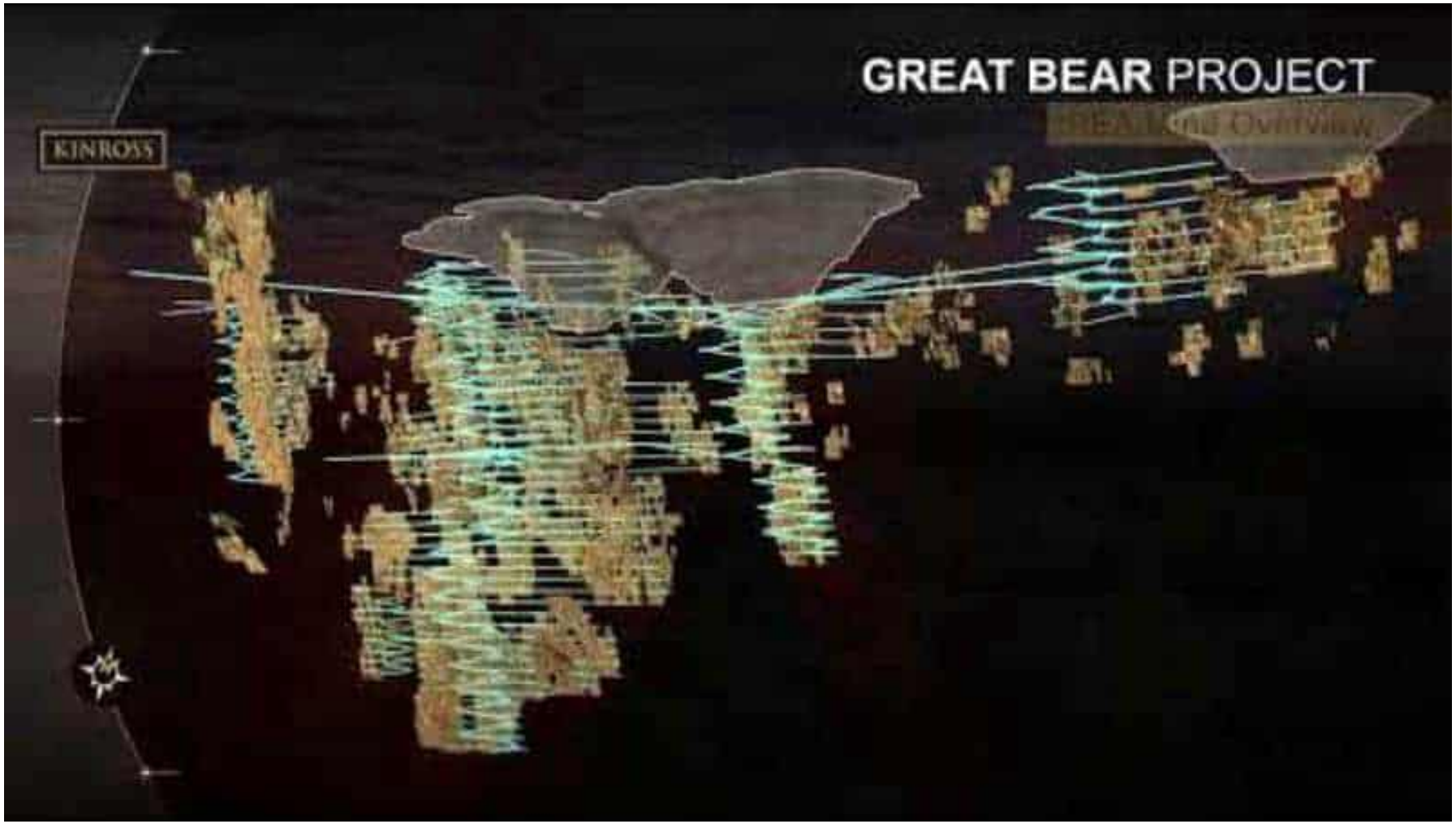
Main Project Footprint

- Located 24 km southeast of Red Lake
- High-grade combined open pit and underground mine
- Initial planned 12-year mine life, with strong UG expansion potential
- 500,000+ ounces per year
- Open Pit – Avg 3.0 g/t Au
- UG – Avg 4.9 g/t Au
- AISC ~ $800/oz
- 10,000 tpd mill
- Updated Mineral Resource Estimate: 2.5m oz Measured & Indicated; 3.7m oz Inferred
- Projected workforce of 900 (LOM Avg)



Kinross Gold Great Bear Preliminary Economic Assessment -

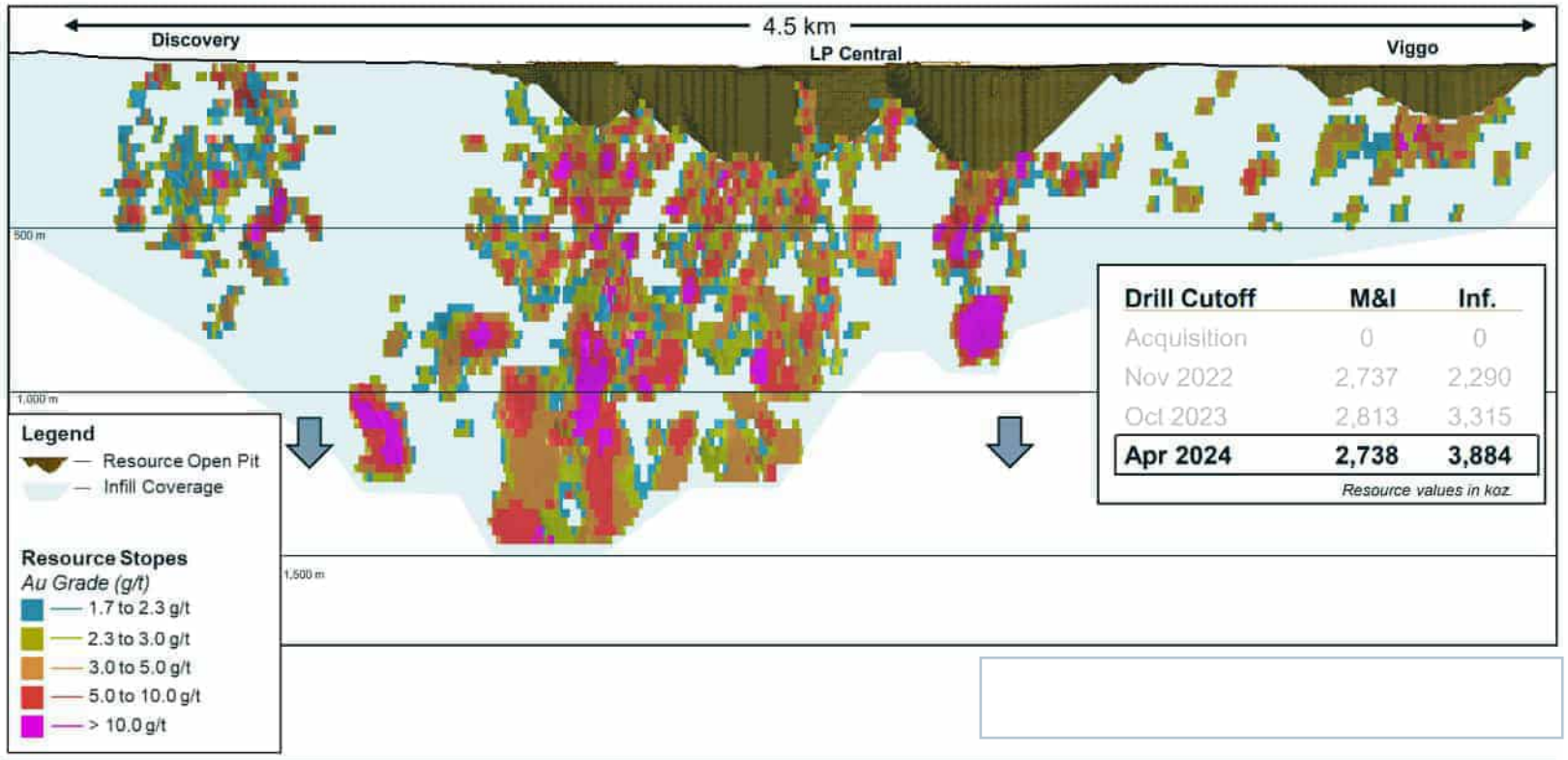
September 10, 2024



Resource Update

- Mid-year in 2024, Kinross has increased Great Bear's mineral resource estimate to approximately **2.7 Moz. of measured and indicated** resources and approximately **3.9 Moz. of inferred** resources.
- These results continue to support the view of a high-grade, large, long-life mining complex at Great Bear.

Drilling Targeted Deep Extensions Beyond 1,000 m with Narrow Focus at LP



Early 2024 drilling focused on directional drilling beyond 1,000 m to demonstrate the continuation of mineralization at depth, expanding the inferred resource by more than 500 koz

KINROSS

Production Profile

- Approximately 500,000 ounces per year for 12+ years
- 10,000 tonnes per day throughput in the Mill
- Average grade of 4 g/t

Open Pit:

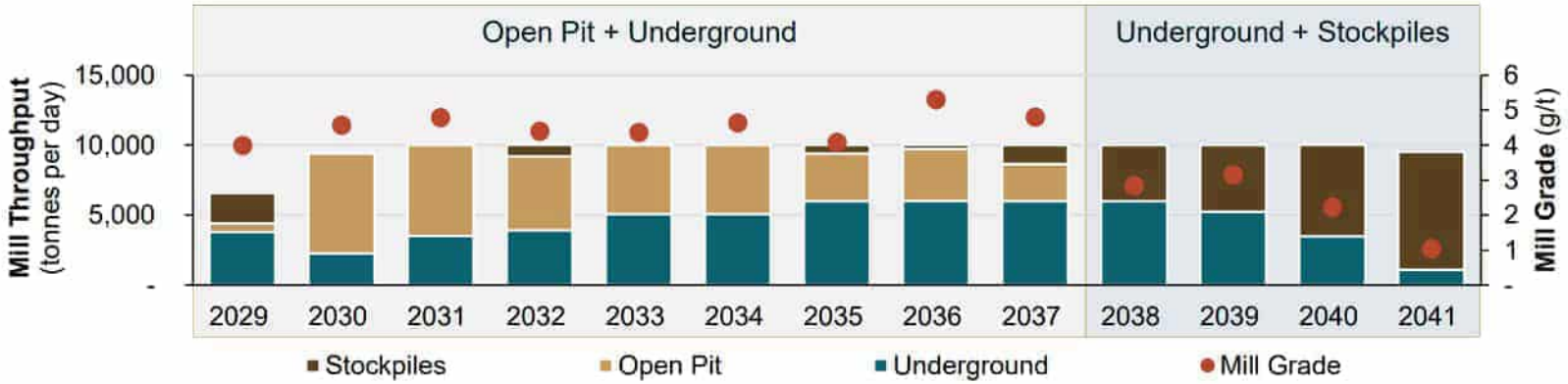
- The Viggo pit will strategically allow higher production in the early years
- Avg grade of 4.2 g/t for the first 8 years

Underground:

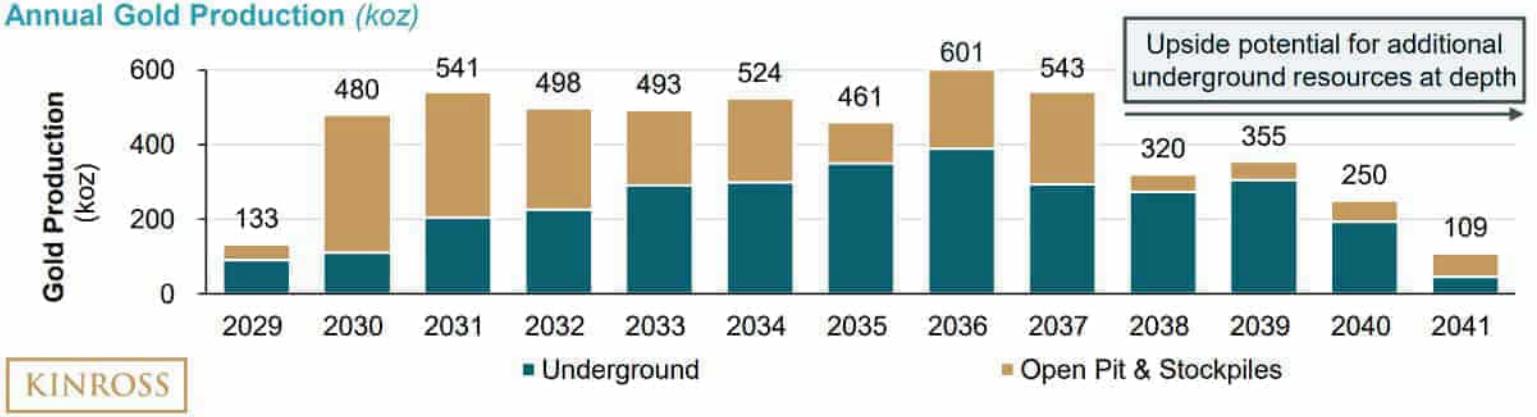
- Long-hole open stoping with paste backfilling
- 6,000 tpd Steady state mining rate
- Avg grade 4.9 g/t

~500 koz per Year Production from Combined Open Pit and Underground Driving Mill Grade over 4 g/t

Annual Mill Throughput *(tonnes per day | g/t)*



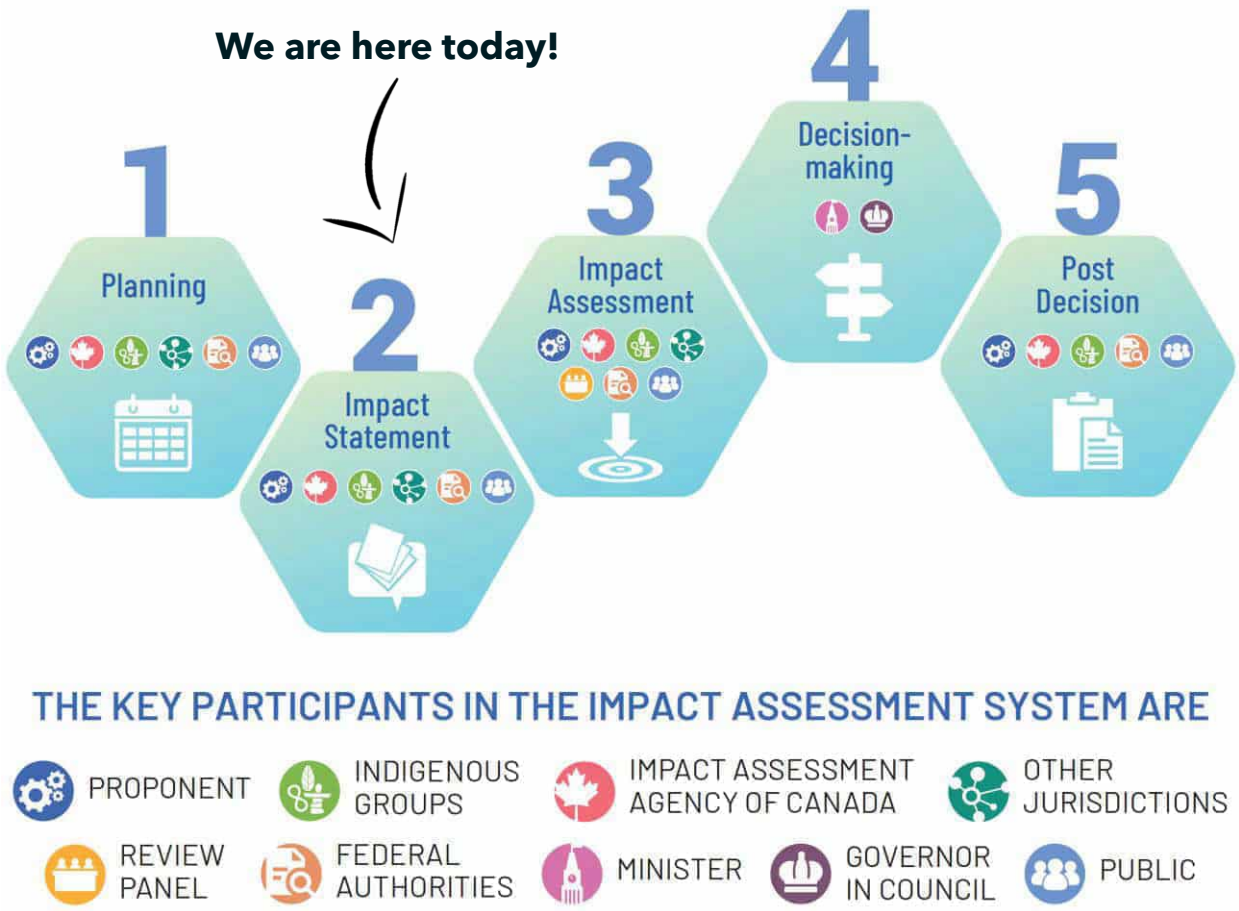
Annual Gold Production *(koz)*



KINROSS

Impact Assessment Process

- An Impact Statement is a detailed technical document prepared by Kinross as per the requirements set out in the Tailored Impact Statement Guidelines.
- The purpose of the Impact Statement is to identify and assess impacts of the project and the measures proposed to mitigate those effects.
- Tailored Impact Statement Guidelines received in August, which provide the roadmap for the Impact Statement.
- The purpose of the Impact Statement is to identify and assess impacts of the project and the measures proposed to mitigate those effects.
- Wabauskang and Lac Seul First Nations are conducting a joint Anishinaabe-Led Impact Assessment.



KINROSS

Impact Assessment Process

- In this phase the Impact Statement will be drafted, with engagement and consultation on key elements like alternatives, design, closure, and fish compensation.
- This work is framed around Valued Components and Pathways.
- Valued Components (VCs) consist of components that are of particular concern or value to participants, and communities affected by the Project.
- Our VCs include considerations to terrestrial ecology, aquatic ecology, water, vegetation, physical environment, human environment and Indigenous peoples.

KINROSS

Sustainability – The Kinross Approach

- *We believe that responsible mining generates sustainable value for investors, host countries and communities. We prioritize health and safety and strive to create positive economic and social benefits and improve the overall quality of people's lives in a manner that is sustainable beyond the life of mine, while being responsible stewards of the environment.*
- In 2023, Kinross Gold contributed over $14 million in monetary and in-kind community investments in host countries and corporately.
- The Great Bear Project has contributed ~ $150,000 in donations and sponsorships so far in 2024.
- The team is also working, in collaboration with local stakeholders, on a social investment strategy for the main project, with consideration for community capacity and needs, accommodations, health care, recreation, seniors, training and education.
- Community Investment Highlights:
  - New Starts for Women – Garage Program
  - Winter Carnival
  - Norseman Festival
  - Canada Day
  - Red Lake Pow Wow Circle
  - Hospital Foundation Charity Auction
  - Red Lake Wilderness Entertainment Series
  - Chukuni Business Awards
  - Red Lake Miners

KINROSS

KINROSS
www.kinross.com
KINROSS

KINROSS
KINROSS

BUILDING A LEGACY IN RED LAKE, ONTARIO

KINROSS

GREAT BEAR PROJECT

ENVIRONMENTAL UPDATE

October 7, 2024

AGENDA

- Baseline Programs and Data Collection
  - What is it and why is it needed?
  - Atmospheric
  - Geochemistry
  - Hydrogeology
  - Hydrology
  - Surface Water Quality
  - Aquatics
  - Terrestrial

Baseline Collection
KINROSS

Baseline Collection

Environmental Baseline

What is it and why is it needed?

An environmental baseline is an in-depth study that is used to establish existing conditions of the proposed land use area, before any project or activity begins.

Establishing baseline conditions of an area allows for assessment of potential impacts from future development and/or activities. It serves as a reference point for measuring changes over time.

The baseline data is used to develop monitoring plans, aid in making informed decisions on operating strategies, and allows for engagement with local communities.

A comprehensive baseline program has taken place at Great Bear Resources over the past two years.

Baseline Collection

Atmospheric

Air Quality Station Locations

Baseline Collection

Atmospheric Baseline - Air Program Summary

- Air Quality
  - Ambient Air Baseline Monitoring is complete as of July 2024. The baseline program started in Q3 of 2022.
  - A total of three stations were monitored at set frequencies for a total of two years.
  - Baseline concentrations were generally not detectable or very low. Consistent with a remote location.
  - Dustfall monitoring continuing throughout AEX operations.
  - Samples analyzed for various parameters such as metals, suspended particulates, silica, etc.

Baseline Collection

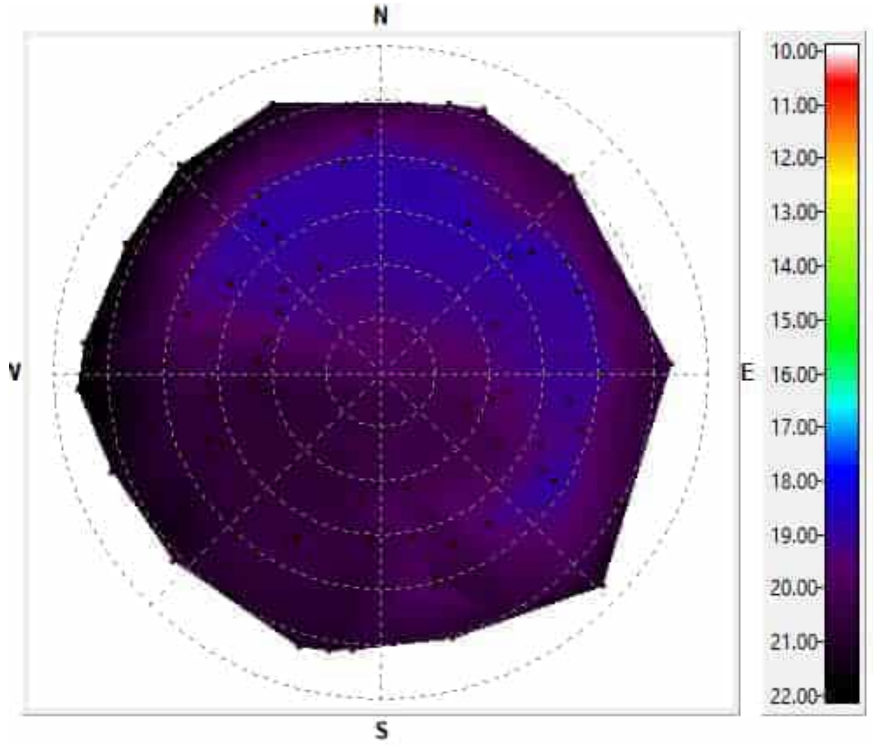
Atmospheric Baseline - Light

Nighttime Light Locations

Baseline Collection

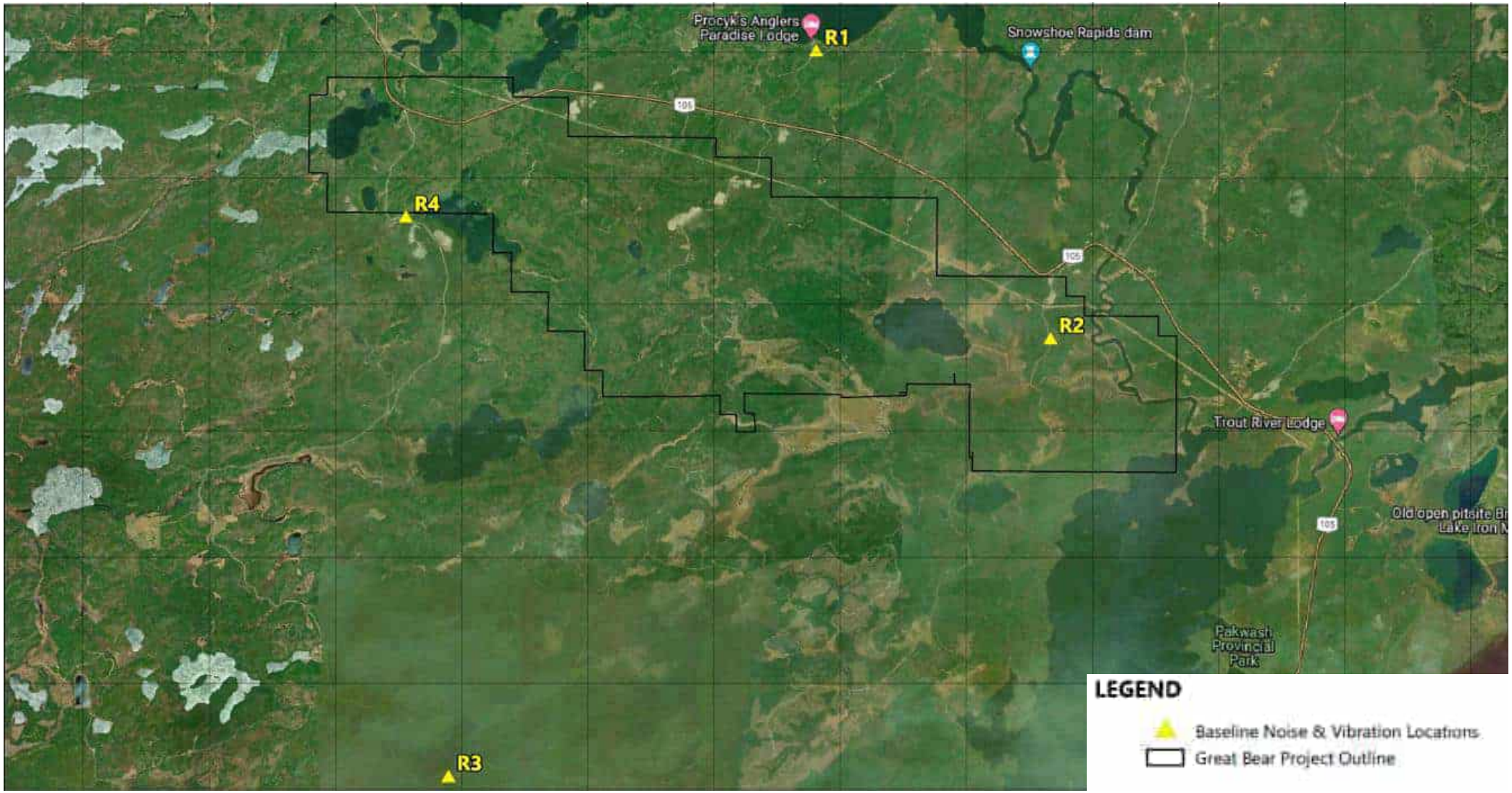
Atmospheric Baseline - Light Program Summary

- The baseline light program is complete as of June 2024.
- Nighttime Light Level baseline readings began in Q3 of 2022.
- Readings were recorded with the light meter and sky quality meter.



Baseline Collection

Acoustic Baseline Program Summary



Baseline Collection

Acoustic Baseline Study Summary

- The acoustic baseline program was complete as of November 2023
- Leaves on and leaves off campaigns took place to capture seasonal variations.
- Vibration monitoring took place at all four locations as well.

Baseline Collection

Geochemistry Baseline

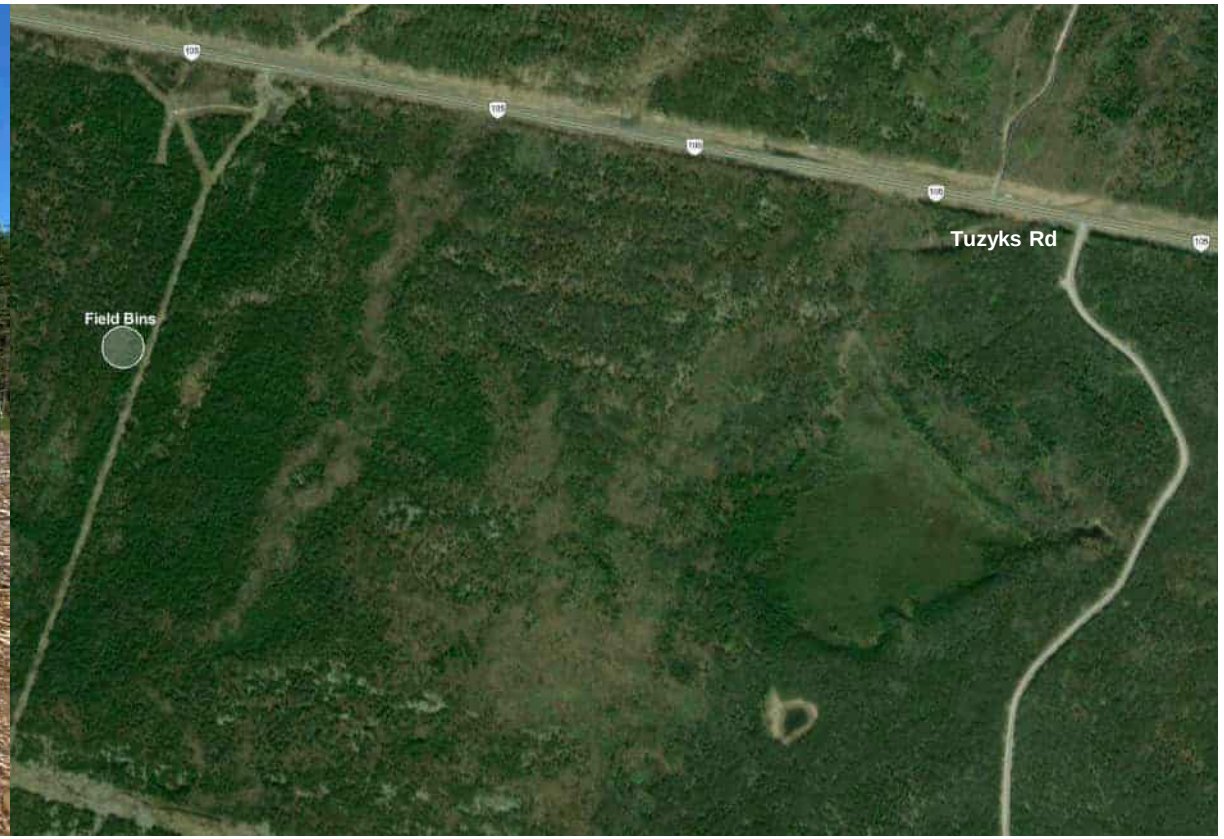
2024 Progress Summary

- Program Overview
  - Ongoing analysis and monitoring includes:
    - Field Leachate Barrels (16 barrels total, constructed and began sampling in Q3 2023)
    - Mine Rock Testing
    - Tailings Kinetic and Static Testing
    - Water quality assumptions
    - Overburden Kinetic and Static Testing
    - Acid Base Accounting (ABA) used to assess the acid-producing and acid-neutralizing potential of mine waste materials and/or overburden.
    - Estimated lag times to acid onset (determined from humidity cell tests).

Baseline Collection

Geochemistry Baseline

Field Bins



- Sampled on a bi-weekly basis from Spring-Fall.
- Analyzed for various parameters such as dissolved metals, total solids, nutrients, etc.

Baseline Collection

Groundwater Quality Baseline – 2023 & 2024

Baseline Collection

Groundwater Baseline

Summary

- Groundwater monitoring has been ongoing since 2022.
- Established a monitoring well network of **136** wells for monitoring groundwater conditions across the site.
- Wells are sampled quarterly for various parameters.
- Water levels are taken monthly at all wells to understand fluctuations in the water table.

Baseline Collection

Groundwater Baseline

Baseline Data Collection

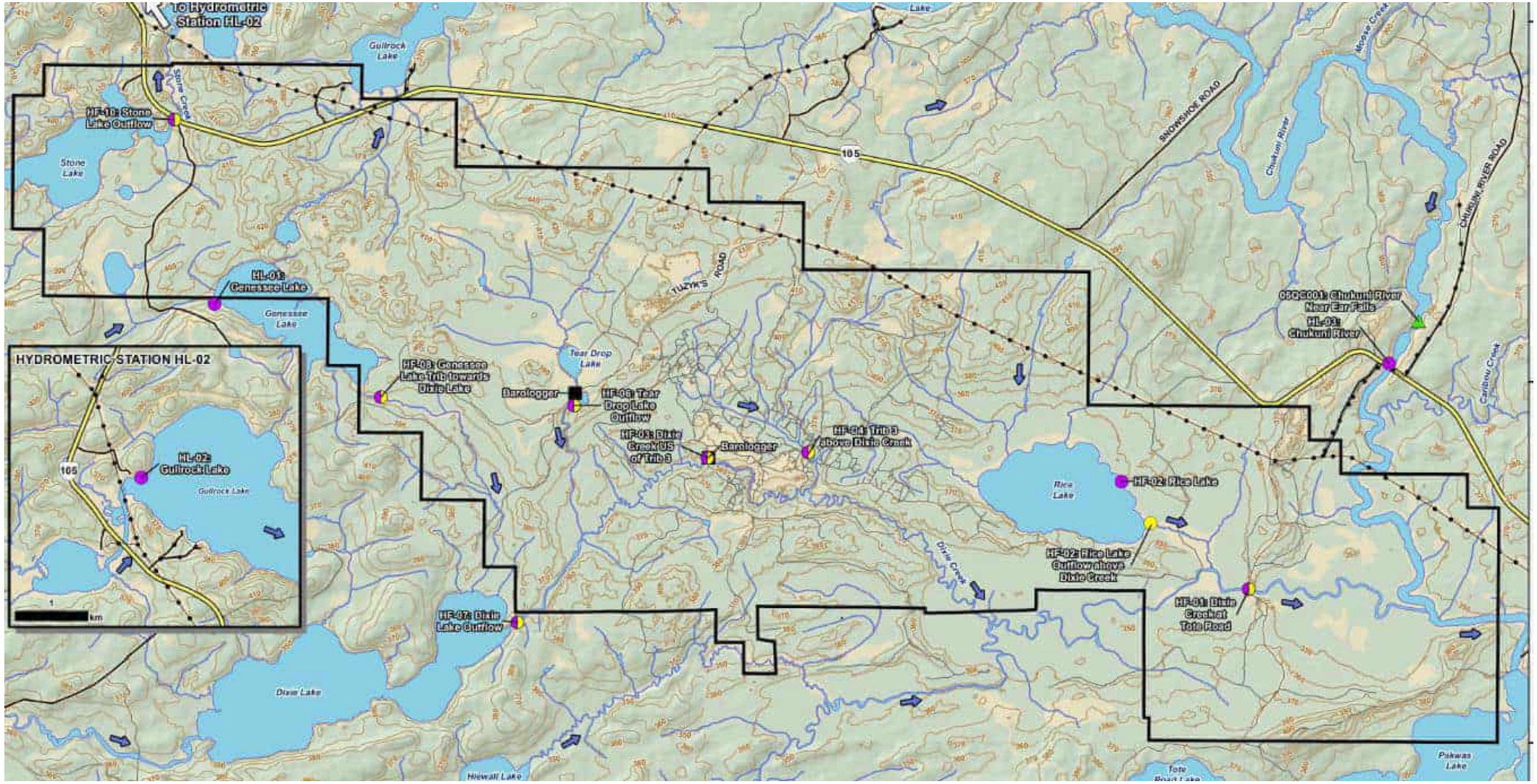
The below outlines the types of data collected for groundwater since the baseline program began in 2022:

- Quarterly GW Sampling
  - Captures seasonal variation
- Monthly Water Level Readings
- Quarterly VW Readings
  - 24 currently installed on site
- Monthly Levelogger Readings
  - 37 loggers currently installed on site

Baseline Collection

Hydrometric Baseline

2023-2024 Field Program Summary



Baseline Collection

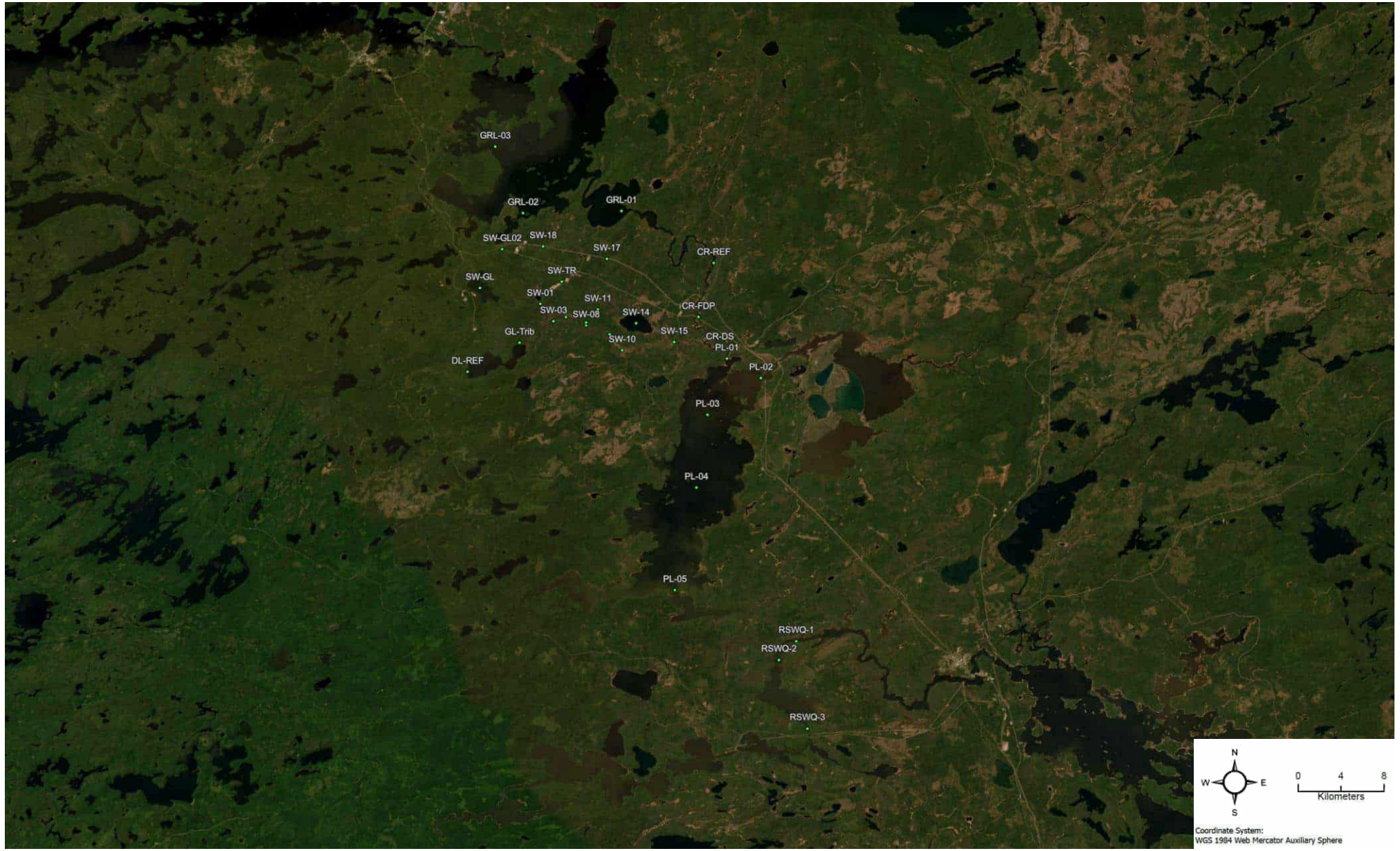
Hydrometric Baseline

2023-2024 Baseline Summary

- 11 hydrometric stations on (8 flow and level stations; 2 lake level stations; and 1 level station on Chukuni River).
- Flows and water level data are monitored at existing hydrometric stations quarterly.
- Monitoring trips conducted in February, July, September and October 2023.
- Monitoring trips conducted in March, June, August and October 2024.

Baseline Collection

Surface Water Quality Baseline Monitoring Sites



Baseline Collection

Surface Water Quality Baseline Overview

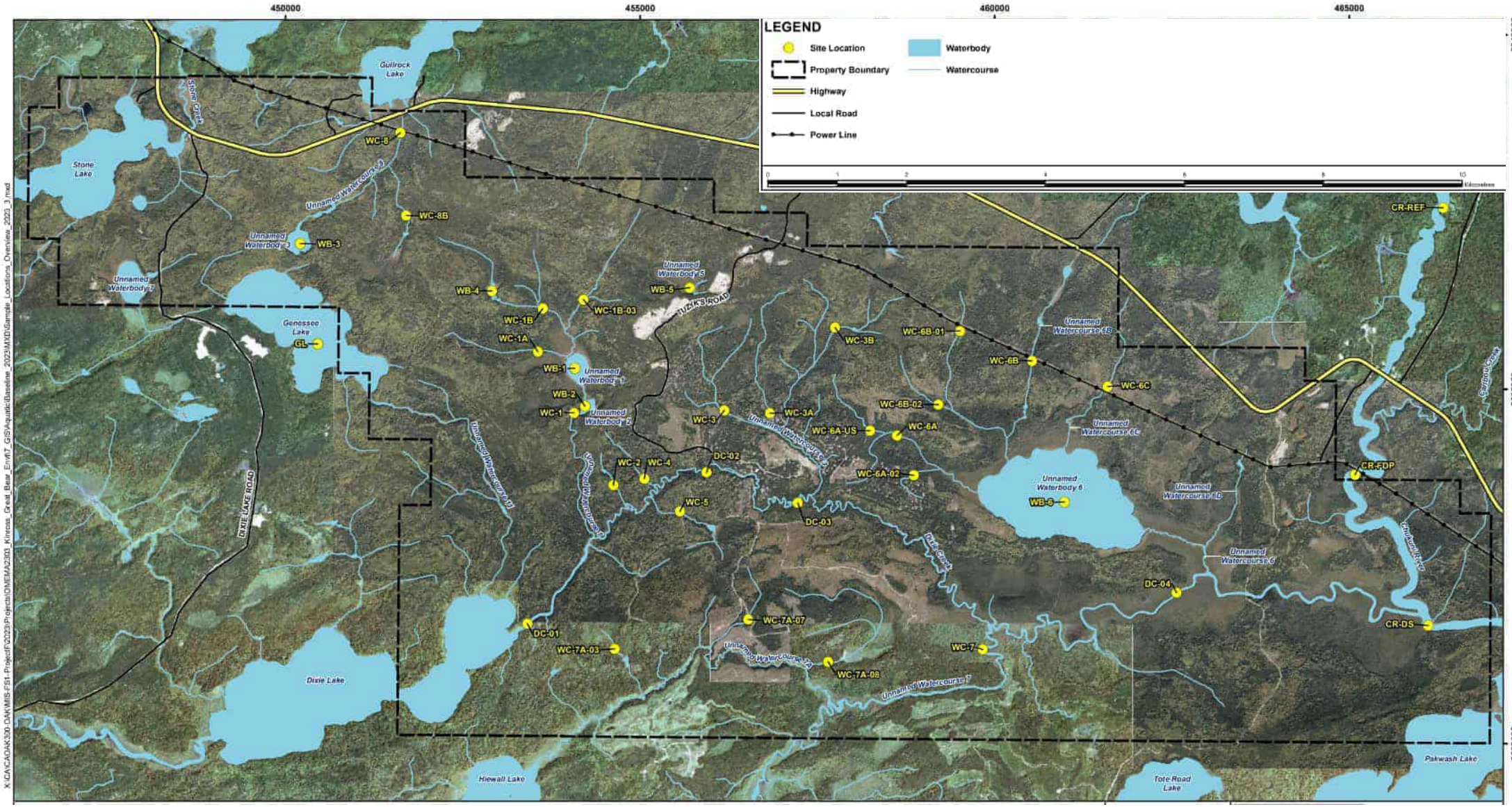
- 46 Water Quality Sample Locations
- 21 locations sampled monthly
- 25 locations sampled quarterly

Parameter	Stations
General (Acidity, Alkalinity, Hardness, TDS, TSS)	All 46 stations
Nutrients & Anions (NH3, Cl, NO2, NO3, P, SO4, DOC, Cyanide)	All 46 stations
Total & Dissolved Metals	All 46 stations
Low Level Mercury	All 46 stations
Methyl Mercury	All 46 stations

Additional stations added in 2024. 3 sampling locations added on Camping Lake to assess water quality on a regional extent.

Baseline Collection

Fish and Fish Habitat Baseline Study Locations



Baseline Collection

Fish and Fish Habitat Baseline 2024 Program Summary

- Multi-season assessments (June – September)
- Spring visit consisted of Chukuni River sediment quality evaluation, deployment of periphyton samplers, fish habitat assessments at various locations, and assessment of potential fish habitat enhancement opportunities within Dixie Creek.
- Summer visit consisted of small-bodied fish community assessment in Chukuni River, sampling of Northern Pike and White Sucker in Chukuni River, fish habitat assessments at various locations, and assessment of potential fish habitat enhancement opportunities within Dixie Creek.
- Fall visit consisted of collection and sampling of periphyton samplers, fish habitat assessments, and sediment quality sampling within the Chukuni River.

Baseline Collection

Project Area Fish Species

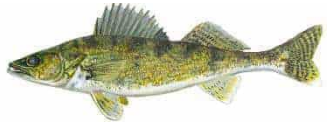
Lake Whitefish

Cisco (Lake Herring)

Burbot

Northern Pike

Muskellunge

Walleye 

White Sucker

Sauger

Smallmouth Bass

Rock Bass

Yellow Perch

Rainbow Smelt

Brook Stickleback

Golden Shiner

Iowa Darter

Central Mudminnow

Slimy Sculpin

N. Redbelly Dace

Finescale Dace

Pearl Dace

Mooneye

Blacknose Shiner

Fathead Minnow

Lake Chub

Terrestrial Environment

- Collected baseline data is used to:
  - characterize existing terrestrial resources, delineate wildlife habitat and use during life stages;
  - support the prediction of environment effects for the Project, identify appropriate mitigation measures, and characterize residual effects; and
  - generate information to support anticipated provincial permitting requirements (e.g., Overall Benefit)

Terrestrial data collected includes:

- Aerial surveys
- Trail camera imagery
- Point counts (estimation of the abundance and diversity of bird species in an area)
- Autonomous Recording Units (ARU's) used for the detection of bats
- Nest Sweeps
- Run Poles (a station with bait and a trail camera deployed to capture imagery of Wolverine in an area)

Baseline Collection

NORTHERN BIOSCIENCE
ECOLOGICAL CONSULTING

Baseline Collection

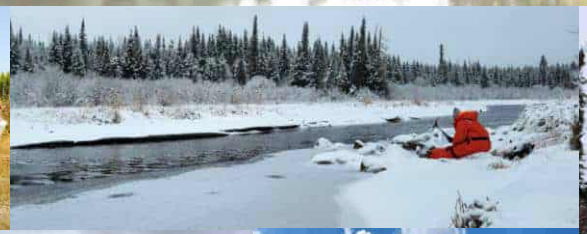
Terrestrial Baseline: Preliminary Findings of Note

- Vegetation in the study area is typically boreal and reflect relatively recent disturbance by wildfire and ongoing forest harvesting;
- Teardrop and Rice Lake harbor potentially significant wetlands, including wild rice marshes that are of significant value to waterfowl.
- Endangered black ash is present near Rice Lake and several other locations,
- Provincially rare floating marsh marigold is found along at least several ditches and streams in the study area.
- The Project study area has formerly supported Threatened woodland caribou but has no evidence of current use.
- Wolverine use the study area at least occasionally, but it is not known if individuals of this Threatened species are resident.
- Little brown myotis and potentially other Endangered bat species (northern myotis, tri-colored bat) use the study area, at least for foraging. No evidence of roosting or hibernacula has been found.
- Endangered red bats, silver-haired bats, and hoary bats use the study area

NORTHERN BIOSCIENCE
ECOLOGICAL CONSULTING

Baseline Field Work – Data Collection

Baseline Collection



QUESTIONS OR COMMENTS?

KINROSS Great Bear

Contact Info

807.631.6769

GreatBearInfo@kinross.com

KINROSS

MINESITE DRAINAGE ASSESSMENT GROUP

contact@mdag.com
www.MDAG.com
CANADA

BY EMAIL

January 31, 2025
FILE: 5025.01

Grassy Narrows First Nation
c/o Cavalluzzo
474 Bathurst Street, Suite 300,
Toronto, Ontario M5T 2S6
Attn: Grassy Narrows Lands Protection Team

Dear Grassy Narrows Lands Protection Team,

RE: Great Bear Mining Project - Preliminary Technical Review of the Mercury Study Plan dated December 2024

Introduction

Thank you for forwarding the Great Bear Project Mercury Study Plan by WSP Canada Inc., dated December 2024. This Study Plan is a response to the Tailored Impact Statement Guidelines (TISG) from the Impact Assessment Agency of Canada. The TISG requires a detailed investigation of mercury and methylmercury. This investigation includes interactions with sulphate some of which will be generated by proposed future mine wastes at the Great Bear Project at all relevant pH levels.

Grassy Narrows First Nation already has expertise on mercury and methylmercury. Therefore, my technical review here focuses on the portions of Section 3.4 (Methods for Forecasting Future Conditions) involving modelling within my areas of expertise. Section 3.4 begins:

> "The following sections outline the key data inputs and modeling approaches proposed to predict future conditions and potential changes from baseline levels, resulting from the Project's potential contributions to methylmercury production. Sulphate, mercury, and methylmercury concentrations in both mine site drainage and the receiving environment will be influenced by factors such as the geochemistry of ore and mine rock, the quantities and management of stockpiled materials, and the characteristics of the receiving waters."

The proposed models in Section 3.4 involve geochemistry including Metal Leaching and Acid Rock Drainage (ML-ARD or geochemical source terms), groundwater flow, and water quality as discussed in the following subsections of the Mercury Study Plan.

3.4.1 Geochemical Characterization
3.4.2 Groundwater Modelling
3.4.3 Mercury and Methylmercury Water Quality Modelling

As explained below, the proposed methods and models in these subsections of Section 3.4 are incorrect, misleading, and/or unacceptably ambiguous for assessing and predicting mercury and

sulphate on, beneath, and around the Great Bear Project. I expect the general effect of the proposed methods and models for the Mercury Study Plan will be to underestimate the leaching and transport of mercury, sulphate, and other metals and elements at the Great Bear Project.

Geochemical Characterization

Subsection 3.4.1 explains the methods that will be used to predict the aqueous concentrations and solid-phase levels for dozens of potential contaminants at the Great Bear Project, including sulphate, ML-ARD, and water quality at near-neutral pH.

This Study Plan states,

> "The sampling approach and testing methods for the geochemical investigations comply with ... guidance found within the Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (MEND, 2009), which represents best practice and industry standard approaches and methodologies for ML/ARD sampling and characterization in Canada."

Kinross committed to the same approach and testing for Advanced Exploration at the Great Bear Project years ago, but fails to follow guidance in this federal Prediction Manual of best practice and industry standards[1]. Where Kinross did follow some guidance and detected potential for significant water-quality degradation and ML-ARD, Kinross decided this serious potential was not relevant to its Great Bear site. Where Kinross admitted to not following the guidance and using a non-recommended procedure that was cheaper, Kinross' rationale was that the non-recommended procedure was mentioned in the federal Prediction Manual as not recommended and thus Kinross was indeed following the federal Prediction Manual.

Kinross has committed to conducting many of the tests for geochemical characterization in this Subsection 3.4.1 as it did for Advanced Exploration at the Great Bear Project. However, as of early 2025, Kinross has not released most of the results for any geochemical testing.

Section 3.4.1 continues Kinross usage of the wrong analytical methods as it did for Advanced Exploration[1]. For example, Section 3.4.1 lists:

> "Solid phase elemental content analysis by aqua regia digestion and inductively coupled plasma-mass spectrometry scan"

However, Kinross fails to explain to non-technical readers that this will underestimate the amount of mercury in Great Bear mined materials including the walls of underground workings and pits, waste rock, overburden, soil, and tailings.

[1] MDAG. 2024. Review of Kinross Gold Responses to Grassy Narrows First Nation Concerns for Advanced Exploration, Concerning Metal Leaching, Acid Rock Drainage (ML-ARD), On-Site Contamination of Water, Fugitive Dust, and Hydrogeology in the ECA, PTTW, and Closure Plan Responses. Report for Grassy Narrows Lands Protection Team, dated September 5, 2024. 48 p.

This is because "aqua regia digestion" dissolves and analyzes only part of the mercury and many other elements in Great Bear mine materials, leaving behind an undetected and unknown amount of additional mercury and other elements. This is not appropriate under conditions and pathways such as fugitive dust to the environment, local-scale acidic conditions, animal inhalation, and comparisons to crustal abundances, which require "total digestion" of all mercury in a sample rather than only part of the mercury from partial "aqua regia digestion". Thus, based on the listing of methods in Section 3.4.1 for mercury, sulphate, and other elements, it is easy to overlook or miss the facts that these proposed methods are not appropriate, reliable, and safe for the Mercury Study.

Therefore, Grassy Narrows First Nation should understand that this Mercury Study Plan contains a program for Geochemical Characterization that matches that for Advanced Exploration, but Kinross has not been able to fulfill this program for Exploration to date after about two years of trying. Also, this geochemical characterization will use invalid and/or ambiguous methods that will underestimate the severity of mercury and sulphate issues at the Great Bear Project. As a result, I expect that Kinross will underestimate the important geochemical input that is critical for a reliable outcome from the proposed Mercury Study. If Kinross corrects the geochemical methods in the Mercury Study Plan to those appropriate to the Great Bear Project, then Advanced Exploration should be stopped because it is already based on invalid and/or ambiguous methods.

Groundwater Modelling

In Subsection 3.4.2, the Mercury Study Plan contains a description of the groundwater modelling that will be used to predict the flow of groundwater and likely the additional mercury loadings to the water-quality model discussed below. Similar to the Geochemical Characterization above, the procedure proposed for groundwater modelling is about the same as used for Advanced Exploration that is seriously flawed[1].

There are many errors in Kinross' modelling of groundwater flow at the Great Bear Project. Many reflect technical details that require relatively long explanations[1]. For example, groundwater modelling at the Great Bear Project apparently shows a high mound of free-standing groundwater above the land surface near Dixie Creek. This artificial and obviously wrongly modelling incorrectly restricts groundwater with mercury, sulphate, and other elements from travelling off the Great Bear site and into the surrounding environment around Dixie Creek.

Perhaps the easiest error to understand with Kinross' groundwater modelling, for both Advanced Exploration and the Mercury Study Plan, is the difference between "transient" and "steady state" groundwater modelling. Similar to surface water and many other environmental processes like temperature and rainfall, subsurface groundwater flow can shift and change daily, seasonally, yearly, over decades, and even longer due to climate change. Thus, the earth's environment is inherently "transient" through time, which can be important for defining flows and loadings of mercury, sulphate, and other elements.

Kinross does not model groundwater at the Great Bear Project using naturally transient conditions. Instead, Kinross only models groundwater at Great Bear with "steady state" conditions, where groundwater flows and loadings are constant all the time, every day, every season, every year, every decade, etc. For Advanced Exploration, at what point in the future was groundwater modelled? No one can say, but the obvious assumption is that it represents conditions a long time into the future. No one can say because Kinross continues to refuse transient modelling.

Groundwater modellers for Great Bear have stated that transient modelling is not needed despite having no transient data, no transient measurements, and no transient modelling[1]. I suspect that Kinross is strongly opposing transient groundwater modelling because it requires additional site measurements and parameters apparently not measured at the Great Bear Project.

Transient groundwater modelling at the Great Bear Project is seriously needed to understand better the impacts and effects on (1) groundwater inflows around the mine and (2) groundwater movement throughout all hydrogeologic layers and surrounding environment, as time passes. Kinross has pointed out that the effects of drought and climate change cannot be estimated, which is because only steady-state modelling was conducted.

Because steady-state modelling of some distant future but unknown time was modelled for Advanced Exploration, this is obviously the modelling that would also apply to proposed mining in the Mercury Study Plan. However, the steady-state modelling for Advanced Exploration was likely wrong but Kinross has not released the additional information from its steady-state model to confirm this.

During proposed exploration and later mining, groundwater will be drawn from all depths into the underground mine at least 500 meters (0.5 km) deep vertically. However, Kinross will release only the drawdown map for the uppermost 36 m of overburden, and not the remaining ~500 m vertical thickness of rock. This incorrectly implies (1) drawdown happens instantaneously for long lateral distances throughout the Great Bear site and (2) transient conditions are minor because they will only be up to 36m vertically.

In situations where groundwater levels will fluctuate more than 500 meters vertically, non-steady "transient" modelling is certainly needed. In fact, groundwater levels, forced by Kinross pumping, varying by roughly 500 m vertically (varying by roughly 0.5 kilometers below the land surface) at the Great Bear Project is one of the best examples of where transient groundwater modelling is critical for reliable and realistic flow directions and associated loadings of mercury, sulphate, and other elements. The proposed open pits at Great Bear will also lead to significant transient groundwater flows and geochemical loadings like mercury and sulphate closer to the land surface but are ignored by Kinross.

Additionally, Kinross misleads by indicating shallow contaminated groundwater will not escape to the environment but would be drawn into the pumped-down underground mine[1]. This is false at early times and only becomes reasonable after unknown longer times as steady-state conditions are approached. The lack of transient modelling prevents anyone from proving how long it will take to

reach steady-state conditions and prevent contaminated groundwater from escaping.

Based on this error alone of steady-state groundwater modelling, Section 3.4.2 of the Mercury Study Plan is remarkable in that it simply states,

> "These numerical groundwater flow models [of FEFLOW 7.2] consider three dimensional steady-state flow conditions and implement an equivalent porous media approach which is deemed sufficient for characterizing the overall groundwater flow regime at the scale of this analysis."

This is wrong, because FEFLOW 7.2 can also simulate transient conditions. Kinross is misleading readers here by not revealing the full capability of this groundwater model including transient modelling needed for the Mercury Study and for general impacts of the Project. In any case, it is clear that steady-state, always-the-same-and-not-varying groundwater modelling, for conditions at some distant but unknown time, will be used to unreliably simulate the critical groundwater pathways and loadings for mercury and sulphate at the Great Bear Project.

Furthermore, the second part of the quotation above on "equivalent porous media" deceptively hides another important flaw. Groundwater moving through irregular and scattered cracks (fractures) in Great Bear rock will be instead incorrectly modelled as smoothed layers like sand and gravel. Kinross has cryptically "deemed sufficient" this unrealistic modelling based on no data and no evidence that groundwater flow through fractured rock at Great Bear is like groundwater flow through sand, gravel, silt, etc. Without proof otherwise, the porous-media modelling planned for the Mercury Study is not "sufficient" and is plain wrong and misleading.

Therefore, Grassy Narrows First Nation should understand that this Mercury Study Plan contains a program for Groundwater Modelling that matches that for Advanced Exploration. The current groundwater modelling is unreliable and likely wrong in light of many incorrect and unjustified assumptions made by Kinross. The Mercury Study Plan shows these errors will be continued, including the false assumption that groundwater flow will be steady state during mining, being the same every day, every season, every year, every decade, etc. As a result, I expect that Kinross will underestimate the important groundwater flow leaving its Great Bear site. Along with problems with the proposed Geochemical Characterization discussed above, this will underestimate the loadings of mercury, sulphate, and other elements leaving the Great Bear site. This will preclude a reliable outcome from the proposed Mercury Study. If Kinross corrects the proposed groundwater modelling in the Mercury Study Plan, then Advanced Exploration should be stopped because it is already based on the misleading and wrong modelling.

Water-Quality Modelling

Section 3.4.3 on water-quality modelling explains that the model called GoldSim will be used for water-flow and water-quality modelling at the Great Bear Project. Here are some statements from Section 3.4.3 about the GoldSim model.

- GoldSim will "stimulate [sic] the volume and flow of water, and the concentrations and transport of chemical species, over the life of the Project".

- "The GoldSim model domain includes waterbodies potentially impacted by the Project within the PA, LSA and RSA."

It is not clear from these statements that GoldSim is not like models such as groundwater (see above) that simulate the movement and chemistry of waters (1) across a site-wide grid of mathematical elements or (2) along a grid of mathematical elements along lake or a creek like Dixie Creek where groundwater can alternately enter and exit the surface waterbodies over short distances.

Instead, GoldSim uses user-defined "compartments" or "conceptual boxes" such as one for the western portion of Dixie Creek near the Great Bear site and another for the eastern portion near the site. The human modellers then conceptually connect these two boxes and any other selected boxes in the GoldSim model to create "nodes". Then the modellers choose the inputs, outputs, and internal conditions and processes that they think apply to each box and node. This should include variable and transient conditions that exist at the Great Bear site over days, seasons, years, and decades, but we already know from the proposed groundwater modelling that transient conditions for at least one important pathway for mercury and sulphate will be ignored and thus will not reliable (see above).

Now it is clearer what Kinross means by saying,

> "Sulphate, mercury and methylmercury predictions will be generated for waterbodies represented by model nodes shown in Figure 3-2."

Thus, predictions for mercury and sulphate will be generated only at "nodes" that do not literally simulate waterbodies in their environmental complexity, but simply represent the "boxes" and "nodes" and internal conditions that Kinross chooses to assume, estimate, and simulate.

Figure 3-2 in the Mercury Study Plan shows that the Chukuni River will be modelled only at two nodes: CHK-1 immediately above the property boundary and CHK-2 immediately below the boundary. Therefore, everything above the property boundary in the Chukuni River will be simulated as a single "node" or "box" for which the modellers will define all the upstream physical, geochemical, and water-quality properties, likely with many simplifications and/or assumptions. Then the physical and chemical contributions from Dixie Creek Node DIX-5 will be "mixed" with Node CHK-1 to obtain predicted flows and concentrations at Node CHK-2, subject to currently unstated simplifications and/or assumptions possibly like adsorption on river-bed sediments or biological processes to remove additional mercury and sulphate from the water at CHK-2. Because of this "node" approach, important details like an initial dilution zone (a mixing zone) in the Chukuni River between Nodes CHK-1 and CHK-2 cannot be simulated in sufficient detail. This gives you some idea how the GoldSim model will "simulate" water flow and water quality at, beneath, and around the Great Bear site.

The GoldSim model for the Great Bear Project can be easily manipulated by the modellers but this is hidden from external inspection by Grassy Narrows First Nation. For example, the modellers can apply a condition where aqueous concentrations of mercury, sulphate, and other elements are allowed to decrease but are not allowed to increase as water "flows" through the boxes and nodes. Section 3.4.3 promises to "[p]rovide a clear description and rationale for model input parameters and assumptions". This is appropriate and important but in my experience I have never seen this

provided in sufficient detail for any GoldSim model.

Therefore, to understand how the GoldSim water-quality model for the Great Bear Project has been designed and manipulated through all of its boxes and nodes, and thus whether its results and predictions are reasonable, a relatively large amount of information on the GoldSim model will be needed from Kinross. I have not seen this provided in detail before, but it will be required for the Great Bear Mercury Study.

Conclusion

As explained above, the proposed methods and models in the subsections of Section 3.4 of the Mercury Study Plan are incorrect, misleading, and/or unacceptably ambiguous for assessing and predicting mercury and sulphate on, beneath, and around the Great Bear Project. I expect the general effect of the proposed methods and models for the Mercury Study Plan will be to underestimate the leaching and transport of mercury, sulphate, and other metals and elements at the Great Bear Project.

Sincerely,

Kevin A. Morin, Ph.D., P.Geo., L.Hydrogeo.
President

January 27, 2025

To: J. Esmonde, Cavalluzzo LLP
From: Dr. Brian Branfireun, London, Ontario.

Re: Preliminary review of the Great Bear Project Mercury Plan, December 2024

1 Introduction

I have been asked to provide a preliminary review the Great Bear Project Mercury Study Plan (WSP, December 2024), and provide an Expert Opinion concerning the adequacy of the plan to protect receiving waters and biota from the direct and indirect effects of the proposed project. As there is little new information provided in this document, a substantial amount of this memo is derived from prior opinions and memos of mine that have reviewed other submissions from the Proponent. These are listed in materials referred.

2 Qualifications

I received my PhD in Geography from McGill University, Montreal, Canada in 1999 with a specialization in hydrology, mercury biogeochemistry, and wetland science. I was subsequently employed as a Professor at the University of Toronto Mississauga campus in Mississauga Ontario, Canada for 10 years, establishing an internationally recognized research program on hydrology and mercury in the environment. In 2010, I was recruited by the University of Western Ontario to the position of Professor and Canada Research Chair in Environment and Sustainability. I am considered an internationally recognized expert in the field of watershed biogeochemistry and the environmental cycling of mercury.

I have authored or co-authored over 100 peer-reviewed scientific papers and book chapters, and have made, or contributed to significant discoveries concerning the role of wetlands on the production and export of methylmercury (e.g. Branfireun et al., 1996; 1998; 1999; 2001; 2005; McCarter et al., 2017). I have been involved in high-impact state-of-the-science publications that have provided significant direction to the mercury research community (Harris et al., 2007; Munthe et al., 2007; Branfireun et al., 2020; Blanchfield et al., 2021). In addition to environmental biogeochemistry, research in my group has broadened to include the impacts of mercury on biota, including migratory birds (e.g. Ma et al., 2018a,b).

3 Summary of Opinions Concerning the Great Bear Project Mercury Study Plan

The Great Bear Project Mercury Study Plan provides a more comprehensive background discussion (Section 1.2) of mercury biogeochemistry than any previous document that I have reviewed from the project Proponent. In Prior submissions, the direct and indirect effects on mercury biogeochemistry of the proposed project have been dismissed, downplayed or ignored, so an increased acknowledgment of the link between sulphate loading from the proposed project from the Proponent is welcome. The presentation of the basics of mercury biogeochemistry is significantly more scientifically correct than the erroneous and misleading prior submissions from the Proponent indicating to me that there is effort being invested to coming up to speed about the current state-of-the-science mercury methylation, which I consider to be a central issue related to the proposed project. Indeed the Proponent acquiesces to the indisputable link between sulphate and mercury methylation, in contrast with the attempts to sew doubt found in prior submissions (Kinross Response to ANA Memo concerning

Great Bear Project AEX ECA Application, August 1, 2024), and goes so far as to acknowledge that arguments to apply site specific knowledge to setting mercury thresholds are valid. Despite this effort, there has surprisingly been no change in the interpretation of baseline data nor the proposed plan for effects monitoring for mercury or methylmercury – I find the same errors in a more attractive wrapper. The facts related to the inadequacy of the background data, sampling frequency, analytical methods, and misrepresentation of the receiving water body receiving effluent (Chukuni River) remain in this document, and evidence-based corrections in prior submissions by ANA have not been acknowledged or addressed, although many are now hidden by vague and over-generalized language. The only salient new information in the Mercury Study Plan is the Proponent's suggested application of a model (GoldSim) to predict changes in mercury and methylmercury as a result of the project. This model is a wholly inappropriate framework for this purpose and cannot provide the information that the Proponent suggests. As such, none of what is presented in this plan addresses the TISG requirement:

"Of particular note, the potential for project contributions to methylmercury production in downstream watersheds requires a detailed and robust analysis. The proponent must submit a study plan to the Agency with sufficient time to facilitate a review by experts and interested parties and to inform the studies undertaken. This includes establishing baseline methodology and effects assessment methodology related to methylmercury as outlined in section 8.6 Groundwater and Surface Water and 8.8 Fish and Fish Habitat."

This requirement is not met because none of the inadequacies of background data or future monitoring that have been previously identified have been addressed let alone acknowledged, and important information from prior documents was omitted which would permit a complete review by experts and interested parties who do not have full knowledge of what has been proposed in prior submissions from the Proponent. As many of these issues have been addressed in prior submissions from ANA, my opinions regarding the Great Bear Project Mercury Study Plan are reiterations of prior concerns with the exception of the discussion of the inappropriateness of GoldSim, which was informed by written and oral testimony that I presented for another case (and was supported by the US Environmental Protection Agency and Army Corps of Engineers).

It is my opinion that:

1) The selective reliance on achieving on and off site water quality that complies with water quality guidelines (CCME) inadequate and inappropriate when considering mercury and methylmercury in water, and methylmercury uptake by biota.

2) The background data collected as part of the baseline studies for this project are largely erroneous or their interpretation is flawed, rendering them neither comprehensive nor sufficient to detect whether the project will have measurable impacts on fish mercury levels in the future.

3) The assimilative capacity of the receiving waters (Chukuni River) as a mitigation strategy for excess sulphate loading is not supported by available data. As this is the only measure that has been proposed to address the indirect downstream effect of sulphate-related methylmercury production, there is no evidence that other adverse downstream effects can be avoided.

4) The model that the Proponent indicates will be used to predict changes in mercury and methylmercury concentrations in downstream watersheds and assess the potential impact on mercury levels in fish (including assessment bioaccumulation / bio-magnification pathways) can technically deliver none of these outcomes.

4 Opinion 1: The selective reliance on achieving on and off site water quality that complies with water quality guidelines (CCME) in inadequate and inappropriate when considering mercury and methylmercury in water, and methylmercury uptake by biota.

Section 2.2.1 of the Great Bear Project Mercury Plan States the following:

> Existing baseline mercury and methylmercury concentrations in surface water and groundwater are compared against applicable guidelines for the protection of aquatic life as well as health-based drinking water quality guidelines, including the:
>
> −CCME guideline for total mercury for the protection of aquatic life (26 ng/L)
> −CCME guideline for methylmercury for the protection of aquatic life **(0.04 ng/L (sic)**
> −Canadian drinking water quality for mercury (1,000 ng/L)
> −United States Environmental Protection Agency (US EPA 1997) criterion of 0.05 ng/L for filtered methylmercury in water for the protection of fish-eating wildlife species

Disregarding the fact that the authors of the report surprisingly misstate the CCME guideline for methylmercury (it is 4 ng/L not 0.04, although 0.04 would be more scientifically justifiable), the statement that the data from the proposed project will be "compared against" any criteria is meaningless, because one may compare an apple to an orange; no intent, threshold, nor trigger value is indicated or even implied by this language. Despite quoting the more reasonable US EPA criterion of 0.05 ng/L methylmercury for the protection of fish-eating wildlife, prior documents submitted for this project indicate clearly that the Proponent intends (and has been approved by the Ontario MECP) to apply the CCME guideline the project from a compliance standpoint, so the reader should presume that the CCME values are the regulatory thresholds being applied by this Mercury Plan, rather than merely comparisons. As I have stated in prior opinions, there is no other way to characterize the CCME guideline values for mercury and methylmercury as anything but useless for the protection of fish consumers, and even if discharges or indirect effects were a fraction of these guideline limits there would be significant potential for downstream impairments of aquatic resources. For example, the CCME Criterion for (Total) mercury is 26 ng/L, which is a value (developed from a 1991 protocol) for the **direct** protection of aquatic life. Despite being profoundly outdated, the CCME document provides valuable commentary that is all too frequently ignored when setting regulatory criteria based on this single value, including "*The protocol **does not** address exposure through **food or bioaccumulation** to higher trophic levels*", and "*if the ultimate management objective for mercury is to protect high trophic level aquatic life and/or those wildlife that prey on aquatic life, **more stringent site-specific application** of these water quality guidelines may be necessary*" (CCME, 2003, p.2; **emphasis mine**).

Although the Province of Ontario is silent on the issue of any other water quality guidelines for mercury, other jurisdictions have been more engaged with revising their mercury and

methylmercury based on best available science at the time. British Columbia explicitly acknowledges the limitations of the CCMEs guidelines, stating "It should be noted that the CCME (2000) in developing guidelines for fresh and marine waters did not consider bioaccumulation effects per se, but based their guidelines on **chronic toxicity**. They caution that the guidelines that they have developed 'may not protect wildlife that consume aquatic life'." (British Columbia Ministry of Environment and Lands, 2001; emphasis mine). We may reasonably extend the statement about consumers of aquatic life to humans. Despite the document being nearly as old as the original CCME guidance, BC takes the interesting approach of defining the water quality guideline to protect wildlife for total mercury by scaling it as a function of the percentage of total mercury that is methylmercury, acknowledging that methylmercury is the only form of mercury that bioaccumulates and biomagnifies in wildlife. Their Table 5 indicates that only in environments where methylmercury is largely not being formed would the CCME guideline of 26 ng/L for total mercury be remotely reasonable for fish consumers to be protected. In environments where methylmercury makes up an increasing fraction of total mercury, the allowable amount of total mercury decreases proportionally with the %methylmercury in the system. At 8% of total mercury as methylmercury, the guideline for total mercury is 1.25 ng/L. Even at 8% methylmercury the BC guideline total mercury value is below the detection limit of the technique that the Proponent declares adequate for the purposes of monitoring (DL of ~ 5 ng/L). The Proponent states in this document (as I provided to them in prior submissions) that that % methylmercury in surface waters of the proposed project can exceed 14% (using their own sparse data), translating to a guideline concentration of a mere 0.72 ng/L for the protection of wildlife consuming aquatic life. Despite the BC document being nearly 25 years old, the rationale for their mercury criteria is logical, and recognize the fact that even low levels of mercury in the environment can bioaccumulate and biomagnify to hazardous levels for fish consumers if the landscape has high methylmercury production potential. It is clear that current conditions in surface waters in the project area already exceed this criteria, meaning that **any** cumulative effect would be in exceedance of BC criteria for mercury in freshwater.

I find it impossible to accept any generalized guideline for mercury or methylmercury in aquatic environments, and instead advise site specific assessment for appropriate threshold levels (which the CCME also explicitly does in their 2003 document, but never seems to be considered). An acceptance of this project mercury plan adhering to the CCME guidance for mercury and methylmercury threshold concentrations for direct and indirect effects is effectively a license to impair downstream resources given the low concentrations of mercury identified by the Proponent through limited baseline sampling. Site specific criterion for mercury and methylmercury must be required here, and derived from **appropriate** baseline data – scant little of which currently exist (see Opinion 2).

5 Opinion 2: The background data collected as part of the baseline studies for this project are largely erroneous or their interpretation is flawed, rendering them neither comprehensive nor sufficient to detect whether the project will have measurable impacts on fish mercury levels in the future.

In the context of the protection of fish consumers, nearly all of the background data for total mercury are useless and stated incorrectly. All of the "data" that are reported in Table 2.10 of "Attachment 4 - Surface and Groundwater Technical Supporting Document" (March 2024) for total mercury are not data at all, but the reporting detection limits of the contract laboratory.

The background mercury data in water (with the exception of the handful of appropriate trace mercury and methylmercury analyses that were conducted by Flett Research) **is incorrect**. The data provided for mercury **are not data** – they are detection limits of the inappropriate technique used to do element scans by inductively coupled plasma – mass spectrometry (ICP-MS). ICP-MS in a standard configuration cannot generate data for mercury with appropriate detection limits (despite the Proponent's assertion to the contrary in the Mercury Plan). Moreover, the Proponent treats these detection limit placeholders as data – **these are not data.** If the contract laboratory reported these values as data, then they are not operating in compliance with ISO 17025 protocols. If the Proponent substituted detection limits for samples reported to be below the detection limit by the contract lab, then this is not correct procedure and should be stated as such. In both cases, a serious lack of oversight and understanding of analytical results is clear as **these are not data**. There is also insufficient data for methylmercury in surface water as this critical parameter was only measured sparsely as part of the baseline monitoring program. As a result, there is virtually no background data for mercury in surface waters for the project area, nor is there sufficient monitoring in the proposed plan because the appropriate trace mercury and methylmercury monitoring is only proposed at select locations and at a frequency that is insufficient to detect change over time, and with highly inappropriate threshold levels that are orders of magnitude above the levels at which adverse effects will occur.

Further investigation into the baseline monitoring data provided in Attachment 4 of the AEX-ECA application which contains all of the background data cited by the Proponent in the Mercury Plan also reveals that the **concentrations reported for sulphate were also erroneous** up until May of 2023 when the Proponent either changed analytical methods or laboratories, or incorrect instrument operation was corrected. From 2021-06-03 to 2023-03-30, we find data that are reported with no precision (i.e. no decimal place) and spuriously range from values of 1 to 11. I know of no analytical technique that would report concentrations like this (we see similarly erroneous data for parameters such as Chloride, TSS, TDS). The clearest evidence to me that this data is no better than random is the value of 7 mg/l on 2022-12-15, followed by a value of 1 mg/L four days later on 2022-12-19. Given that there was no appreciable change in river flow over this time, **these data are erroneous and cannot be used**. There is similar randomness in other parameters. The fact that the average concentrations that are reported directly in the Appendix are substantially different for the three stations on the Chukuni River should have been the first indication that there was a data quality problem.

Notably, the data quality changes substantially in May 2023, with two decimal place precision and a much more realistic range of concentrations (4.18 – 6.30 mg/L). Other parameters also show this step change in data quality. There was obviously a change in technique or in the contract laboratory being used that was not documented, which is contrary to best practices at the very least.

Other variables reported are also suspect up until this date as many of the physical parameters (e.g. TDS, TSS) and nutrient data ($N0_2$), contain inexplicable values, change in quality, or are dropped completely (e.g. NO_3-$N0_4$-T). The failure to note and censor these erroneous data is inexplicable – to use them to calculate descriptive statistics is inexcusable. For these variables (including sulphate) there are only 8-9 usable data points for all of the stations reported (including the Chukuni River).

The Mercury Plan makes reference to comprehensive background data about mercury and sulphate that will inform modelling efforts and trigger undefined actions should they change. One cannot numerically model concentrations of "below the detection limit". The reality is that the background data is neither "comprehensive" nor "sufficient" by any reasonable definition, and the approval of a Mercury Plan such as this is license to both proceed blind with respect to the site specific mercury conditions, as well as condone the continued use of an inappropriate analytical approach (despite the Proponent's statement to the contrary) that will reliably generate non-data that cannot capture trends in mercury concentrations across most of the sampling sites in the project area.

6 **Opinion 3: The assimilative capacity of the receiving waters (Chukuni River) as a mitigation strategy for excess sulphate loading is not supported by available data. As this is the only measure that has been proposed to address the indirect downstream effect of sulphate-related methylmercury production, there is no evidence that other adverse downstream effects can be avoided.**

Similar to the comparison to various mercury guidelines discussed above, the Proponent outlines in the Mercury Plan a range of sulphate mitigation measures that are being "considered" to address the issue of sulphate loading to sites of mercury methylation (Section 3.3). The primary mitigation measure outlined is to not discharge sulphate directly into sites with high methylation potential (e.g. wetlands). I am not sure that this constitutes a mitigation measure because of the obvious environmental consequence of doing so. Other measures being "considered" include various tailings management strategies and management of sulphate-bearing runoff. In the middle of the list is the **only** option that has been discussed and justified by the Proponent in all prior submissions:

"Discharging treated effluent to a large receiving watercourse (Chukuni River) that has a high oxygenation level and high assimilative capacity."

This 'mitigation strategy' has been commented on by myself and other experts in prior submissions, however this single sentence contains so much misleading information that it is worth breaking down here, making reference to the much more detailed discussion found in prior expert submissions.

1) **Treated effluent:** Indeed the Proponent has outlined strategies for treating effluent to be discharged to the Chukuni River, however none of the treatment technologies proposed target sulphate at all. Sulphate production from overburden and waste rock could be substantially greater than the Proponent states. Given that groundwater contributes nearly 80% of the total water outflows, 25% of groundwater samples (75^{th} percentile) from many locations in the project area had sulphate concentrations well in excess of 10 mg/L (Appendix B, Table 3 AEX-ECA Application), and the water treatment technology outlined by the Proponent has no capacity to remove sulphate, it would seem that the Proponent's 'expected' case of 10 mg/L sulphate is not just unlikely, but nearly impossible to achieve without even considering the potential for additional sulphate sources due to operations. Indeed without any additional treatment the Proponents 'extreme' case is likely a gross underestimate. With only gypsum saturation ultimately controlling sulphate solubility, sulphate concentrations in the range of 1000-1500 mg/L may be expected and are in fact, typical of many mine sites with oxidizing sulphide minerals like pyrite.

2) **Large watercourse:** This is of course a relative statement however a 20-year median annual discharge of 26.5 m^3/s is objectively a substantial flow. However as I have outlined in prior memos (Branfireun Review of Kinross Response to ANA Memo concerning Great Bear Project AEX ECA Application, August 1, 2024; October 7, 2024), median or mean statistics do not tell the whole story about assimilative capacity, despite the Proponent utilizing the simple numerical average of the entire daily discharge record (which upward biases the value) for all of their dilution scenarios presented in prior submissions to justify assimilative capacity. In the context of dilution of an environmentally relevant chemical, it is more relevant and protective to explore the lower ranges of flow, since it is at these levels that the river has less assimilative capacity and adverse effects are more likely. The 20-year average 25th percentile value is 14.2 m^3/s, meaning that for a full quarter of the year (which would include the relevant summer low flows when biogeochemical activity including methylation would be the highest), flows in the river are equal to or less than this value. The 20-year average minimum flows are only 5.7 m^3/s; more than 5 times lower than the discharge value that the Proponent used to calculate dilution. I argue that this is a more appropriate 'extreme' case discharge value to use, however it is notable that **the record contains a period of zero flow conditions in 2011 – a condition under which effluent discharge would make up 100% of river flow and would be completely undiluted (i.e. the river has zero assimilative capacity)**. 2023 was among the lowest flow years in the last 20, and the central tendency of the river discharge over that period is toward lower, and less variable flow. If the 2023 flow statistics (median, 25th percentile, and minimum flows of 13.5, 6.6 and 3.1 m^3/s are reflective of future drier conditions driven by climate change, then the use of a single value of average flow that is 10x greater than this low flow condition to calculate effluent dilution and demonstrate assimilative capacity is clearly not protective by any definition.

3) **High oxygenation level:** The Proponent has frequently made the argument that oxygenated waters in the receiving reach of the Chukuni River preclude negative effects of sulphate addition because sulphate reduction would not occur. This statement is misleading, as I could visit the most methylmercury contaminated lake in Ontario (Clay Lake) in August, measure surface water oxygen levels and declare it oxygenated. This would be ignoring the anoxic bottom waters and sediments where very high levels of methylmercury are formed. Of course, rivers do not stratify but it is well documented that they can have anaerobic sediments, biofilms and hyporheic zones where sulphate reduction and methylation can occur (despite having a well-mixed water column above). The biogeochemical status of the immediate receiving river reach is actually not the biggest issue here, it is the methylation potential of downstream waters where this well-oxygenated river will deliver sulphate that may be many times in excess of background levels.

Pakwash Lake is the first lake downstream of the proposed effluent discharge, and already has **five** fish species that have restricted consumption advisories due to mercury contamination (https://www.ontario.ca/page/fish-consumption-report?id=50459330) indicating that any further loading of methylmercury, or enhancement of the methylating process either in the lake or upstream would amplify an existing environmental degradation.

Whether the fish species with tissue mercury exceedances in Pakwash Lake immediately downstream of the proposed operation derive their methylmercury from Chukuni riverbank wetlands, river littoral sediments, biofilms or periphyton, anoxic profundal lake sediments, or anoxic hypolimnetic waters during stratification is actually irrelevant – methylmercury is produced in the aquatic environment because it is found in fish in downstream receiving waters

and it is dependent on the activity of sulphate-reducing bacteria, which are dependent on available sulphate. To have that many species with mercury consumption advisories confirms that this is a mercury sensitive environment with high mercury methylation potential.

4) **High assimilative capacity:** The argument was been made that additional sulphate might not enhance methylation in the receiving reach because it is oxygenated, but the Proponent has further argued that the proposed operation will not measurably increase sulphate in the Chukuni River and downstream receiving waters because of the dilution of the operation's effluent by the large flows of the Chakuni River (where dilution is used synonymously with assimilative capacity). All of the above points outline how the Proponent has arrived at the conclusion of high assimilative capacity through the application of erroneous/incorrect data, inappropriate analyses of river flows, and untested estimates of sulphate loading from project effluent, none of which is bounded by uncertainty. I have numerically laid out the potentially dire sulphate concentrations that may arise as a result of low flows combined with higher than stated effluent sulphate concentrations/volumes, should the reader choose to explore this more fully (Branfireun Review of Kinross Response to ANA Memo concerning Great Bear Project AEX ECA Application, August 1, 2024; October 7, 2024).

7 Opinion 4: The model that the proponent indicates will be used to predict changes in mercury and methylmercury concentrations in downstream watersheds and assess the potential impact on mercury levels in fish (including assessment of bioaccumulation / bio-magnification pathways) cannot technically deliver any of these outcomes.

In the Great Bear Project Mercury Plan Section 3.4.3, the Proponent states that the GoldSim software modelling package will be used to "stimulate ***(sic)*** the volume and flow of water, and the concentrations and transport of chemical species, over the life of the Project." Without substantiation, they go on to state that "GoldSim has been extensively and successfully applied to simulate complex water resource management, mining operation, contaminant transport, and waste management projects and represents a robust industry-standard modelling software." Although I do not disagree that GoldSim has been widely applied to various industry problems I cannot speak to its success. I can say that it does not appear to ever have been applied to an environmental mercury speciation scenario. There is a clear reason for this – GoldSim is fundamentally (even with its CT submodel) a non-reactive mass-balance model that cannot incorporate mechanistic sorption/desorption reactions along flowpaths, the biomethylation process, nor the complex interaction between mercury and sulphate. As such, the model proposed can never be successfully applied in the manner that is proposed. A mass balance model *cannot* by definition incorporate mechanistically the input and removal processes for mercury, and *cannot* address the biogeochemical aspects of mercury methylation across the landscape which are at the root of the potential impacts associated with the Great Bear proposal. The reason why mass balance models are used for solutes (and can work for solutes that are conservative in water) is because they are simple to apply quickly and require little parameterization (i.e. are inexpensive to implement). Indeed they can have value to evaluate simple "what if" scenarios. However, being cheaper and easier to use is not sufficient justification for taking a naïve approach to evaluating possible environmental risks in a region of extreme mercury sensitivity, when much more defensible approaches exist, including models for watershed-steam mercury dynamics. On page 17 of the Mercury Plan, the authors state that GoldSim is used because it provides "a clear description and rationale for model input parameters and assumptions." I have seen this language used in other cases that I have opined about, with the implication being that GoldSim is somehow MORE clear in its description and

rationale of input parameters and assumptions than other models (i.e. superior). This seems to be popular but baseless justification, as it implies that it is somehow more transparent than other model frameworks.

The statement that the mass balance models like GoldSim are transparent with respect to data inputs is true, in that it is true that *any* model is transparent with respect to data inputs because one must know what the data inputs are in order to run the model (a non sequitur). What is also true of any model is the adage of "garbage in, garbage out." The definition of input parameters and stated variables is always required in any model, as is the establishment of boundary conditions and mechanisms that reflect the best available science. In the case of the Great Bear Project, we have a virtual absence of useable data for baseline water quality (see above), which means that we are at a loss for values for the very input parameters that are required.

The Great Bear Project Mercury Plan reaches even farther by stating that "Results of GoldSim modelling for surface water and sediment quality, described above, will be used to forecast and assess potential effects on fish mercury concentrations in downstream watersheds. Both small and large-bodied fish will be considered in this assessment." My understanding of GoldSim is that it uses the sediment compartment to model water chemistry, not the other way around, so to suggest that GoldSim can be used predictably for the sediment compartment is unrealistic beyond simple mass transfer, despite the importance of the sediment compartment for net methylation. More problematic is the leap of faith between whatever output is provided by GoldSim and a prediction of methylmercury concentrations in biota. There is no evidence of any such effort being successfully reported in the public domain; if the Proponent has advanced the science in this area then I would welcome an opportunity to review their efforts in this regard as it would mark a major breakthrough in modelling mercury biogeochemistry and biotic uptake. I suspect that this is not the case, since the means by which this is to be accomplished is apparently "changes in fish body burden mercury concentrations is considered to be the forecasted methylmercury concentration in the water column, as determined by the water quality model." I am not sure who "considered" this relationship, however it was not someone with a modest scientific understanding of the controls on fish tissue MeHg concentrations – such a simplistic forecasting relationship does not exist, and this is in addition to the fact that GoldSim cannot predict methylmercury concentrations in the first place.

8 Other Errors, Omissions and Concluding Remarks

There are other problematic statements throughout the Mercury Plan that are used to downplay the potential impacts of the project do not align with scientific facts. The statement "For example, SRB-induced mercury methylation could occur in areas of organic soils peripheral to the rock stockpiles; however, methylmercury production beneath rock stockpiles can be limited by low temperatures at the base of the stockpiles which will inhibit SRB activity." is patently false given that the SRB can be quite active at temperatures just above freezing (e.g. Fortin et al., 2000).

We have all kinds of details on sample handling and Quality Assurance/Quality Control procedures in Section 2.2.1 that convey attention to detail and rigour, however a statement about sampling frequency is carefully worded so that the inadequacy of the water quality sampling is not apparent.

Baseline surface water quality sampling generally occurs monthly to characterize seasonal variability in water quality, providing flow is present and that the monitoring site can be safely accessed. (GBP Mercury Plan, p.5)

This statement fails to identify which solutes will be measured from this 'generally' monthly sampling, however in prior documents, the Proponent has clearly indicated that low detection level mercury and methylmercury sampling will only be done at only **half of the sampling sites**, and are only to be taken **quarterly (4 times per year)**. This low frequency of sampling of the only mercury data of utility is insufficient to statistically detect change until that change is so substantial that its effects would be irreversible. Since all of the other mercury sampling will be subject to an inappropriate analytical technique that will mostly return non-detects, the proposed monitoring programs are effectively designed to avoid change detection and I expanded on this in a prior memo (Branfireun to Esmonde, on Advanced Exploration Program (AEX) Environmental Compliance Approval - Industrial Sewage Works (ECA – ISW) July 5, 2024).

Here, we see the assembly of a house of cards by the Proponent. We have a water quality model that is not capable of predicting mercury biogeochemical processes, and that is dependent on background data and proposed monitoring that is insufficient. The outcome will be the inevitable future conclusion by the Proponent that the combination has led to an inability to adequately predict changes in methylmercury concentrations in fish because of 'uncertainties' in GoldSim output, and 'unforeseen complexities' in coupling abiotic and biotic compartments. The reality is that these uncertainties and complexities are completely foreseeable as outlined here. The consideration of the December 2024 Mercury Plan as anything other than deficient will excuse the Proponent's future failure to predict the impact of the proposed development from a mercury perspective because of the appearance of due diligence at this stage of the process. I conclude that the TISG's requirement that the Proponent provide *a detailed and robust analysis on the potential for project contributions to methylmercury production in downstream watersheds* has not been met based on the information provided in their Mercury Plan.

9 Materials Referred

Branfireun, B.A. Expert Opinion Memo to J. Esmonde, Cavalluzzo LLP concerning Great Bear Project AEX-ECA proposal. July 5, 2024

Branfireun, B.A. Review of Kinross Response to ANA Memo concerning Great Bear Project AEX ECA Application, August 1, 2024; October 7, 2024

British Columbia Ministry of Environment and Lands. 2001. Ambient Water Quality Guidelines for Mercury https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/approved-wqgs/bc_env_mercury_waterqualityguideline_overview.pdf

Canadian Council of Ministers of the Environment. 2003. Canadian water quality guidelines for the protection of aquatic life: Inorganic mercury and methylmercury. In: Canadian environmental quality guidelines, 1999. Canadian Council of Ministers of the Environment, Winnipeg.

(mercury-inorganic-mercury-and-methylmercury-en-canadian-water-quality-guidelines-for-the-protection-of-aquatic-life.pdf)

Fortin, D, Goulet, R, Roy, M (2000). Seasonal cycling of Fe and S in a constructed wetland: The role of sulfate-reducing bacteria. GEOMICROBIOLOGY JOURNAL, 17(3), 221-235

Water Quality

Ambient Water Quality Guidelines for Mercury

Overview Report — First Update

Prepared pursuant to Section 2(e) of the
Environment Management Act, 1981

Original signed by Margaret Eckenfelder
Assistant Deputy Minister
Environment and Lands HQ Division
February, 2001

Summary

This report is one in a series that establishes ambient water quality guidelines for British Columbia. The guidelines are safe conditions or levels of contaminants, applicable province-wide, which are set to protect various water uses.

This report updates the 1989 BC Environment guidelines for total mercury (THg) by providing revised water quality guidelines to protect aquatic life from chronic effects of mercury. This was deemed to be necessary since the Canadian Council of Ministers of the Environment (CCME) have recently developed guidelines for mercury in the water column to protect aquatic life and in the flesh of aquatic life to protect wildlife. The report also outlines water quality guidelines to protect avian wildlife feeding on aquatic organisms. The updated guidelines are consistent with the CCME tissue residue guideline to protect wildlife from methyl mercury (MeHg) in their diet. The guidelines for livestock, irrigation and recreation, are unchanged from in the 1989 report. The guidelines are summarized in Table 1, Table 2, and Table 3.

Ministry of Environment | Water Protection and Sustainability Branch, Environmental Sustainability and Strategic Policy Division | Mailing Address: PO Box 9362 Stn Prov Govt Victoria BC V8W 9M2 | Telephone: 250 387-9481 Facsimile: 250 356-1202 Website: www.gov.bc.ca/water

Table 1: Summary of Water Quality Guidelines for Mercury

Water Use	30-d av. Conc.* (µg/L THg)	Maximum Conc. (µg/L THg)
Source Drinking Water	See Source Drinking Water Quality Guidelines: https://www2.gov.bc.ca/assets/download/1F11ABD2CBD24EB09A70B89AB50CE6B0	
Wildlife and Aquatic Life (Freshwater Estuarine and Marine)+ When MeHg = 0.5% of THg When MeHg = 1.0% of THg When MeHg = 8.0% of THg	 0.02 0.01 0.00125	None proposed
Irrigation Water Supplies	None proposed	2.0
Livestock Water	None proposed	3.0

* The 30-day average is based on five weekly samples taken in a period of 30 days.
+ If natural levels exceed the guidelines for aquatic life, then any increase allowed above the natural levels should be based on site-specific data.

Table 2: Tissue Residue Guidelines to Protect Wildlife from Mercury Toxicity

The concentration of methyl Hg in fish or shellfish consumed by wildlife should not exceed 0.033 µg/g wet weight.

Preface

THE MINISTRY OF ENVIRONMENT, LANDS AND PARKS (now called Ministry of Water, Land and Air Protection) develops province-wide ambient water quality guidelines for variables that are important in the surface waters of British Columbia. This work has the following goals:

1. to provide guidelines for the evaluation of data on water, sediment, and biota

The definition of a guideline is:

A maximum and/or a minimum value for a physical, chemical or biological characteristic of water, sediment or biota, which should not be exceeded to prevent specified detrimental effects from occurring to a water use, including aquatic life, under specified environmental conditions.

The guidelines are province-wide in application, are use-specific, and are developed for some or all of the following specific water uses:

- Raw drinking and public water supply
- Aquatic life
- Wildlife
- Agriculture (livestock watering and irrigation)
- Recreation and aesthetics

The guidelines are set after considering the scientific literature, guidelines from other jurisdictions, and general conditions in British Columbia. The scientific literature gives information on the effects of toxicants on various life forms. This information is not always conclusive because it is usually based on laboratory work which, at best, only approximates actual field conditions. To compensate for this uncertainty, guidelines have built-in safety factors which are conservative but reflect natural background conditions in the province.

Guidelines are subject to review and revision as new information becomes available, or as other circumstances dictate.

The guidelines apply to the ambient raw water source before it is diverted or treated for domestic use.

The Ministry of Health regulates the quality of water for domestic use after it is treated and delivered by a water purveyor.

Guidelines relating to public health at bathing beaches are the same as those used by the Ministry of Health which regulates the recreation and aesthetic use.

Introduction

Mercury is a non-essential element for plants and animals. However, metallic mercury is widely used in industry for the manufacture of chemicals, electrical equipment, power generation, dental amalgams and metallurgical gold. The mercurial compounds have found applications in paints, drywall compounds, scientific supplies, pharmaceuticals, fungicides and bactricides.

Mercury is found naturally in the earth crust, rocks, minerals, and coal and base metal deposits. Areas of high mercury content associated with zones of instability and volcanic and thermal activity have been found over the globe.

Many natural and anthropogenic sources contribute to environmental mercury loading. In the environment, mercury can exist in both organic and inorganic forms. Methyl mercury (MeHg), the most toxic form of mercury, tends to bioaccumulate and biomagnify in the aquatic food chain. Piscivorous mammals, fish and birds accumulate most of their body burden through diet.

Mercury is known to damage renal, nervous, reproductive, and developmental systems. The chemical form of mercury and route of entry are important determinants of its toxicity. Ingestion of inorganic mercury is primarily responsible for erosion of intestinal tracts and kidney damage in both animals and humans. Methyl mercury and short-chain organic mercurials destroy neuronal cells in areas of central nervous systems concerned with sensory and co-ordination functions.

In British Columbia, economic grade deposits of mercury are commonly associated with sedimentary rocks such as limestone and sandstone of the Palaezoic to Recent age. The province's richest mercury deposits are in the Pinchi Lake fault zone which extends from Fort St. James northwest to the Omineca River. Other major areas of mercury mineralization in British Columbia include Kamloops Lake, Bridge River, and Yalakom River.

The concentration of mercury in natural waters is generally low. However, elevated concentrations of mercury have been reported in British Columbia in areas contaminated by the industrial activity (e.g., Squamish) and where extensive mercury mineralization has occurred.

Historical mercury concentrations should be viewed with caution. Results from cleaner laboratory analytical methods with lower detection limits show that background mercury concentrations are lower than previously thought. Older high values may be the artifacts of high detection limits and artificial contamination during measurement.

Recommended Guidelines

Table 1 summarizes all guideline values including those that have been updated. This was deemed to be necessary since the Canadian Council of Ministers of the Environment (CCME) have recently developed guidelines for mercury in the water column to protect aquatic life and in the flesh of aquatic life to protect wildlife. There is obviously a need to reconcile all these guideline values in one document for the benefit of resource managers.

1. SOURCE DRINKING WATER

See the Source Drinking Water Quality Guidelines: Guideline Summary Document

https://www2.gov.bc.ca/assets/download/1F11ABD2CBD24EB09A70B89AB50CE6B0

2. AQUATIC LIFE (FRESHWATER, ESTUARINE AND MARINE)

These guidelines replace the 1989 BC Environment guidelines for fresh, marine and estuarine waters.

(a) The 30-day average guidelines for marine, estuarine and fresh waters are the same, due to the facts that:

- the bioaccumulation potential of mercury in marine and freshwater food chain is similar; and
- both are based on the 1999 CCME recommended tissue residue guideline to protect the most sensitive consumers of aquatic life (e.g., avian species).

The average concentration of total mercury in water as measured over a 30-day period (based on five weekly samples) should not exceed 0.02 ug/L when the methyl mercury (MeHg) constitutes less than or equal to 0.5% of the total mercury concentration. When the proportion of MeHg is greater than 0.5%, the guideline should be adjusted as indicated in the Table 3 below. The rationale for the graduated guideline is the fact that MeHg concentrations may vary in the environment. For example if the percent of MeHg is 11% the guideline would be calculated by the following equation:

0.1ng MeHg/L (WQGwl *see below in rationale section*) ÷ 0.11 (i.e. the % MeHg)
= 0.9 (guideline ng/L total Hg)

Table 3: The Total Hg Guideline as a Function of the Percentage of Methyl Mercury

% MeHg (of total Hg)	Guideline (ng/L total Hg)
0.5	20.0 ng/L
1.0	10.0 ng/L
2.5	4.0 ng/L
5.0	2.0 ng/L

These levels will protect freshwater aquatic life from chronic effects of mercury. They will also prevent undesirable accumulation of mercury from water to the food chain that may harm the most sensitive consumers (e.g., avian species) of aquatic life.

Rationale:

The following assumptions were made to update the 30-day average guideline to protect from mercury bioaccumulation in fish to a level that may harm wildlife consuming the mercury-contaminated fish:

All mercury in fish tissue is in the methylated form. This conclusion is consistent with observations made by researchers in the literature.

The MeHg bioaccumulation factor at a higher trophic level (level 3 or fish consumed by avian species) is 320,000 on wet-weight (BAF_{3ww}) basis or 1,600,000 on dry-weight (BAF_{3dw}) basis. This BAF is consistent with the US EPA recommended value and values observed in Squamish, British Columbia.

Based on recommended level of methyl mercury at 33 µg/kg wet-weight (diet) and the methyl mercury BAF_{3ww} of 320,000, the acceptable concentration in water for the protection of wildlife consuming fish can be estimated as follows:

$$WQGwl = (33\ \mu g\ MeHg\ kg^{-1} \times 1000\ mg/\mu g) / 320{,}000 = 0.1\ ng\ MeHg/L$$

(where WQGwl is the water quality guideline to protect wildlife)

Table 5 below expresses WQGwl in terms of the comparable THg levels for various percentages of MeHg as a function of THg.

Table 5. WQGwl In Terms of the Comparable THg Levels for Various Percentages of MeHg as a Function of THg

% MeHg (of total Hg)	WQGwl (ng/L total Hg)
0.5	20.0 ng/L
1.0	10.0 ng/L
2.5	4.0 ng/L
8.0	1.25 ng/L

This analysis suggests that the 1989 BC Environment's 30-day average guideline of 0.02 mg/L (or 20 ng/L) total mercury is valid as long as MeHg is less than or equal to 0.5% of the total mercury concentration. Appropriate water quality guidelines for MeHg concentrations other than those specified in the above table can be determined using a linear relationship between WQGwl and MeHg (%).

It should be noted that the CCME (2000) in developing guidelines for fresh and marine waters did not consider bioaccumulation effects per se, but based their guidelines on chronic toxicity. They caution that the guidelines that they have developed 'may not protect wildlife that consume aquatic life'. As well, they considered marine and fresh waters separately, even though there is no reason to suspect that the chemistry of each affects mercury or its bioaccumulation in fish and avian wildlife and do not provide a guideline for MeHg in marine water.

(b) The 1989 BC Environment guidelines for a maximum mercury concentration in either fresh or marine waters has been deleted due to the bioaccumulative nature of mercury which is the most important consideration in developing guidelines. Direct toxic effects that a maximum concentration is meant to protect against are seldom encountered and will be accounted for in bioaccumulation in most cases.

3. WILDLIFE

The 30-day average concentration of total mercury in water to protect wildlife should not exceed levels shown in Section 2 above. These guidelines are based on the tissue residue guideline recommended by the CCME (2000), and will protect the most sensitive avian life feeding on aquatic organisms that may accumulate undesirable levels of mercury in their tissues. This guideline replaces the 1989 BC Environment guideline of 3.0 mg THg/L that had been based on livestock sensitivity to mercury since there were insufficient data on mercury toxicity to avian wildlife. The CCME (2000) did not recommend mercury guidelines for wildlife.

Additionally, the methyl mercury concentration should not exceed 0.033 µg/g wet weight in the diet of wildlife. This guideline is consistent with the CCME (2000) tissue guidelines to protect avian wildlife feeding on fish and shellfish containing mercury.

4. LIVESTOCK WATER SUPPLY

The concentration of total mercury in livestock water supply should not exceed 3.0 µg/L at any time. This is consistent with the 1989 BC Environment and the CCME (1999) guidelines.

5. IRRIGATION

The maximum concentration of total mercury in irrigation water should not exceed 2.0 µg/L. This is consistent with the 1989 BC Environment guideline. The CCME (1999) did not recommend mercury guidelines for water used for irrigation.

Application of the Guidelines

1. FORMS OF MERCURY

Toxicity of mercury has been expressed in terms of both total and methyl forms of mercury. However, total mercury is recommended for setting water quality objectives for a given waterbody. The advantages of expressing toxicity on the basis of total mercury concentrations are:

i. all the mercury that may potentially be toxic is included in the measurement; if the total mercury concentration in water is within the guideline limits, then it is safe to conclude that no mercury pollution exists;
ii. for comparison purposes, there is a considerable amount of historical information available for total mercury; and
iii. total mercury measurements are routine and relatively inexpensive.

Mercury in aquatic organisms (e.g., fish) is predominantly in the methyl form and should also be measured when investigating mercury contamination problems in aquatic systems. The CCME recommended tissue residue guideline (0.033 micrograms MeHg/g wet weight-diet) should apply to protect wildlife consumers of fish.

The main disadvantage of using total mercury to assess water quality is that a large fraction of mercury may become biologically unavailable by forming complexes with the organic and suspended solids fractions of water. Nevertheless, given favourable environmental conditions, mercury complexed in such a manner will be released into the environment in readily available forms, becoming part of the food chain.

2. ASSESSMENT OF EXISTING WATER QUALITY

The guidelines recommended in this document are primarily based on laboratory bioassays that usually are performed with soluble forms of mercury under controlled conditions. Aquatic organisms in a natural environment, however, obtain their mercury burden from both water and food. Mercury from sediments

could become available to the organisms under certain environmental conditions. Thus measuring total mercury in water alone cannot be taken as a true measure of a mercury problem in a given waterbody.

Other assessment techniques include measurements of mercury in fish, and long-term bioassays with resident species using local water. The guidelines for mercury in fish can be used for to assess existing water quality. Long-term bioassays are complex and costly, and should be used for waterbodies with high fisheries values that are threatened by a controllable source.

ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/263681556

Seasonal Cycling of Fe and S in a Constructed Wetland: The Role of Sulfate-Reducing Bacteria

Article *in* Geomicrobiology · July 2000

DOI: 10.1080/01490450050121189

CITATIONS
60

READS
245

3 authors, including:

Danielle Fortin
University of Ottawa
193 PUBLICATIONS **6,214** CITATIONS

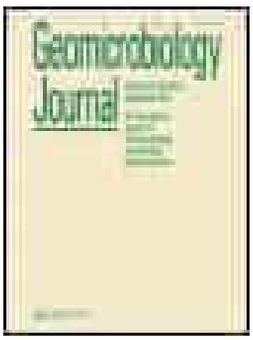
SEE PROFILE

Richard R Goulet
CanmetMINING
33 PUBLICATIONS **1,052** CITATIONS

SEE PROFILE

All content following this page was uploaded by Richard R Goulet on 12 November 2015.

The user has requested enhancement of the downloaded file.



Geomicrobiology Journal

ISSN: 0149-0451 (Print) 1521-0529 (Online) Journal homepage: http://www.tandfonline.com/loi/ugmb20

Seasonal Cycling of Fe and S in a Constructed Wetland: The Role of Sulfate-Reducing Bacteria

D. Fortin, R. Goulet, M. Roy

To cite this article: D. Fortin, R. Goulet, M. Roy (2000) Seasonal Cycling of Fe and S in a Constructed Wetland: The Role of Sulfate-Reducing Bacteria, Geomicrobiology Journal, 17:3, 221-235, DOI: 10.1080/01490450050121189

To link to this article: http://dx.doi.org/10.1080/01490450050121189

Published online: 29 Oct 2010.

Submit your article to this journal

Article views: 70

View related articles

Citing articles: 21 View citing articles

Full Terms & Conditions of access and use can be found at
http://www.tandfonline.com/action/journalInformation?journalCode=ugmb20

Download by: [University of Ottawa] **Date:** 12 November 2015, At: 10:48

Geomicrobiology Journal, 17:221–235, 2000
Copyright © 2000 Taylor & Francis
0149-0451/00 $12.00 + .00

Seasonal Cycling of Fe and S in a Constructed Wetland: The Role of Sulfate-Reducing Bacteria

D. FORTIN

Department of Earth Sciences
University of Ottawa
Ottawa, Ontario, Canada

R. GOULET

Department of Biology
University of Ottawa
Ottawa, Ontario, Canada

M. ROY

Department of Earth Sciences
University of Ottawa
Ottawa, Ontario, Canada

Downloaded by [University of Ottawa] at 10:48 12 November 2015

The role of sulfate-reducing bacteria (SRB) in the cycling of Fe and S was studied in a young constructed wetland located in Kanata, Ontario, Canada. The wetland is a surface-flow system composed of three consecutive cells. Sediments and water samples were collected over the course of 1 year within each cell. Sediments were analyzed for the presence of SRB (using a lactate-rich medium), whereas surface and porewaters were analyzed for their concentrations of dissolved Fe and sulfate and for pH, E_h*, and dissolved organic carbon. Lactate-using SRB were present at all three sites within the wetland, and the populations were largest (*10^{10} *colony-forming units per gram of sediment) during the cold winter months, where the temperature of the water was ~1° C. The presence of high-SRB populations also corresponded to highly anoxic conditions within the sediments and to a decrease of sulfate concentrations, suggesting that cold temperature did not affect the activity of SRB. Our results indicate that Fe and S cycling in the young constructed wetland was active throughout the year, especially in the cold winter months, where large SRB populations were encountered. This suggests that Fe removal in wetlands can be effective in temperate climates, even though the temperature of the water decreases drastically during the winter.*

Keywords constructed wetland, iron cycling, sulfate-reducing bacteria, sulfur cycling

Biogeochemical reactions responsible for metal removal in constructed wetlands include adsorption onto reactive mineral and organic surfaces and precipitation as insoluble metal

Received 10 December 1999; accepted 3 April 2000.

We thank the city of Kanata, Ontario, Canada, for allowing us to sample the wetland. The project was supported by the University of Ottawa Research Fund and the Interfaculty Collaborative Research Fund. We also thank F.R. Pick and two anonymous reviewers for their constructive comments and suggestions.

Address correspondence to Danielle Fortin, Department of Earth Sciences, University of Ottawa, 140 Louis Pasteur, Ottawa, ON, Canada, K1N 6N5. E-mail: dfortin@science.uottawa.ca

oxides and sulfides (Tarutis and Unz 1996). Of all these processes, microbial sulfate reduction and the subsequent precipitation of metal sulfides have been identified as important reactions in metal removal in wetlands (Machemer and Wildeman 1992; Feng and Hsieh 1998; Webb et al. 1998). In fact, in many low-temperature sedimentary environments, microbial sulfate reduction is the sole mechanism responsible for the formation of iron monosulfides and pyrite (Berner 1984). Recent work has shown that such iron sulfide minerals play an important role in trace metal adsorption in anoxic sediments (Huerta-Diaz et al. 1998).

Microbial sulfate reduction depends on various physicochemical factors, including the supply of sulfates, the amount and type of organic electron donors, pH, and temperature (Berner 1984). In freshwater environments, such as wetlands, sulfate reduction rates are generally limited by the amount of sulfate, because the average SO_4 concentrations are ~50 to 450 μM (Feng and Hsieh 1998). In constructed wetlands, however, sulfate concentrations can be greater because of wastewater loading and anthropogenic activities. A second important factor influencing sulfate reduction in natural aqueous environments is temperature. Temperature effects on the growth of and reduction rates by sulfate-reducing bacteria (SRB) have been studied in sediments in cold climates, such as the Arctic and Antarctic (Isaksen and Jorgensen 1996; Sageman et al. 1998). The latter showed that SRB from Arctic sediments grew well at very low temperatures, but the sulfate reduction rates were greatest at much higher temperatures. The same studies concluded that sulfate reduction rates were more dependent on substrate supply than on temperature.

There is much concern about metal retention by constructed wetlands in northern climates (Maehlum et al. 1995; Reddy and Burgoon 1996). As surface water temperature decreases, microbial sulfate reduction rates are believed to decrease, perhaps leading to a decrease in metal retention. Data on the effect of temperature on SRB growth and sulfate reduction rates in wetlands are, however, limited. Batal (1989) hypothesized that SRB increase their numbers in cold water because the decrease in their metabolic rate provides more substrate for growth of other SRB. Therefore, metal retention, especially Fe, during the winter should be sustained because the increasing number of SRB should maintain the sulfate reduction rates.

The present study was initiated to examine the impact of seasonal variations of SRB populations on the cycling of Fe and SO_4 in the sediments of a young constructed wetland built to treat municipal and agricultural runoff. Seasonal variations in SRB numbers were expected to affect the removal of soluble Fe from the water.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Materials and Methods

Site Description

The Monahan wetland, located in the city of Kanata, Ontario, Canada, is a surface-flow system that was built in 1995 to control the quantity and quality of storm water runoff. The wetland is referred to as a young wetland because it has yet to accumulate a substantial amount of organic matter in its sediments. In young wetlands, the retention of metals depends more on adsorption onto organic matter than on microbial sulfate reduction observed in older wetlands (Machemer and Wildeman 1992). The Monahan wetland was designed to keep water velocities <0.5 m/s and to hold 35,000 m^3 of water. The mean water depth is 1.5 m and the total drainage basin area of the wetland is ~637 ha. The wetland itself has three consecutive cells, which were lined initially with a thick layer of clay to prevent water infiltration into the underlying aquifer. No organic substrate was added on the clay liner. The Monahan wetland is mainly colonized by cattails (*Typha latifolia*) (Table 1). Phosphorus loading to the Monahan wetland is relatively high (0.17 mg/L), which results in an intense

TABLE 1 Characteristics of the sampling sites

	Site 1	Site 2	Site 3
Location	Cell near inflow	Middle cell	Cell near outflow
Depth (m)	0.5	0.5	0.5
Vegetation	*Typha latifolia*	*Typha latifolia*	*Typha latifolia*
OM[a] (%)	8.15 (0.50[b])	12.67 (0.12)	12.13 (0.42)

[a]Organic matter content in the surface sediments (0–2 cm), as determined by loss on ignition.
[b]The standard deviation ($n = 3$) is given in parentheses.

colonization of the littoral zones by cattails. As a result, ~44,000 kg of organic matter accumulate, mainly as peat, at the bottom of the wetland each year.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Sampling

Sediments and porewater samples were taken in each cell (at locations called sites 1, 2, and 3) of the wetland (Table 1). Sediments were collected in October and December 1997 and in April and August 1998. One sediment core was taken at each sampling date and site with a 10-cm-diameter plexiglass tube and was sectioned on site into 1-cm intervals. To avoid contamination, samples used for bacterial enumeration were taken in the middle of the core and stored in sterile glass vials. To minimize air contact, the vials were completely filled with sediments and stored on ice until their return to the laboratory. Most probable number (MPN) enumeration was carried out within 24 h of sampling. In situ measurements of pH and redox were also performed on the same sediment cores, using a portable pH meter. The pH electrode was calibrated on site with pH standards (at pH 4 and 7). The redox electrode was also calibrated on site with the ZoBell's solution (Nordstrom 1977). A second set of samples was taken in October 1997 for analysis of geochemical fractions. The sediments were placed in acid-washed bottles and kept at 4°C until being freeze-dried. Fresh surface sediments (from 0–2 cm deep) were also analyzed for organic matter content, as determined by loss on ignition.

Porewater samples (peepers) were collected in December 1997 and in April and August 1998 with plexiglass peepers. One peeper was installed per site and sampling date. Porewater peepers were filled with degassed ultrapure water and closed with a 0.2-μm pore-size filtering membrane (HT-Tufryn; Gelman Scientific). Peepers were inserted vertically into the sediments (not more than 0.5 m from the sediment cores) and left in place for 2 weeks (Carignan 1984). The peepers allowed for the collection of interstitial and surface waters at 1-cm-intervals along a 35-cm profile. Water samples were retrieved with 5-ml plastic syringes and transferred into preacidified plastic bottles (10 μl of conc. HCl for 4 ml of sample). Water sample collection was completed within 1 h of the retrieval of the peepers. The temperature of the overlying waters was also monitored on a monthly basis over the course of the sampling period. Surface water samples were collected every 3 days from April 1997 to October 1997 at site 1 (inflow) and site 3 (outflow). Samples were filtered (with 0.45-μm pore-size filter) and acidified after collection and analyzed for dissolved organic carbon (DOC) by using a DC-190 (Hewlett Packard) TOC analyzer.

MPN Counts of SRB

Numbers of viable SRB were estimated with MPN dilutions in liquid medium (American Public Health Association, 1965) within 24 h of sampling. A modified version of Postgate's

growth medium B (Postgate 1984; 10 g/L Bacto-Tryptone [Difco], 5.9 ml 60% Na-lactate, 2 g/L $MgSO_4 \cdot 7H_2O$, 0.5 g/L Fe $SO_4 \cdot 7H_2O$, and 0.5 g/L Na_2SO_3) was used along with a reducing agent supplement (RAS; 7.5 g/L ascorbic acid and 7.5 ml/L thioglycollic acid). All solutions were adjusted to pH 7.50 with 2 M NaOH. Dilution series (1:10) were carried out in culture tubes, starting with ~1 g of wet sample in 9 ml of reduced water (100 ml/L RAS and 2.1 g/L NaCl adjusted to pH 7.50 with 2 M NaOH). Between each dilution, the tubes were vortex-mixed for 1 min to thoroughly disperse the bacteria and sediments. Five tubes containing 9 ml of growth medium and 1 ml of RAS were then individually inoculated with 1 ml from each dilution set. Sealed tubes were left in the dark at room temperature until black Fe-sulfide precipitates started to form (~1–2 weeks). Note that the medium used might have preferentially selected lactate-utilizing SRB over nonlactate users.

Sequential Chemical Extraction

Sediments were subjected to a sequential chemical extraction to separate them into three iron-rich fractions: Fe-reactive, including oxides, carbonates, monosulfides, and hydrous aluminosilicates; Fe-silicates; and Fe-pyrite (Huerta-Diaz et al. 1993). Freeze-dried sediments (0.25 g) were first digested with 1 M HCl (10 ml) for 16 h. Iron concentration in the HCl fraction is referred to as Fe-reactive. The solid residue was then placed in 10 M HF (30 ml) for 16 h to extract Fe from silicate minerals, and finally any remaining residue was transferred to concentrated HNO_3 (10 ml) for 2 h to assess the pyrite fraction. All extractions were run on duplicate samples.

Iron and Sulfate Analysis

Sulfate concentrations in the porewater samples were analyzed by ion chromatography (Dionex DX-100) with a detection limit of 20 μM. Iron concentrations were measured by graphite furnace atomic absorption spectroscopy (Varian Spectra AA-250 plus), with a detection limit of 0.09 μM. Blanks and certified standards (SCP Science Canada) were used to ascertain the accuracy of the porewater Fe and SO_4 measurements. The iron content of each extraction fraction was analyzed by flame atomic absorption (Varian AA-1475) with use of appropriate standards and matrices; the detection limit of that method for Fe was 1.7 μM.

Statistical Analyses

Statistical analyses were performed with Systat 7.0 for Windows 95. Spatial and temporal differences in DOC content in surface water were tested by using a two-way parametric analysis of variances (ANOVA). Assumptions of the parametric ANOVA were tested with Wilkes–Shapiro test for normality of residuals, with Levene's test for homoscedasticity and with autocorrelation plots for independence among residuals.

Results

SRB Populations

Temperatures of surface water dropped near the freezing point in the winter, and a thin layer of ice (5–15 cm) developed over most of the wetland (Figure 1). Nevertheless, SRB were observed at all three sampling sites during each of the sampling periods (Figure 2), being recovered from the first 10 cm of sediment (organic and inorganic sedimentary material and clays from the liner material put at the bottom of the wetland during its construction). SRB

Downloaded by [University of Ottawa] at 10:48 12 November 2015

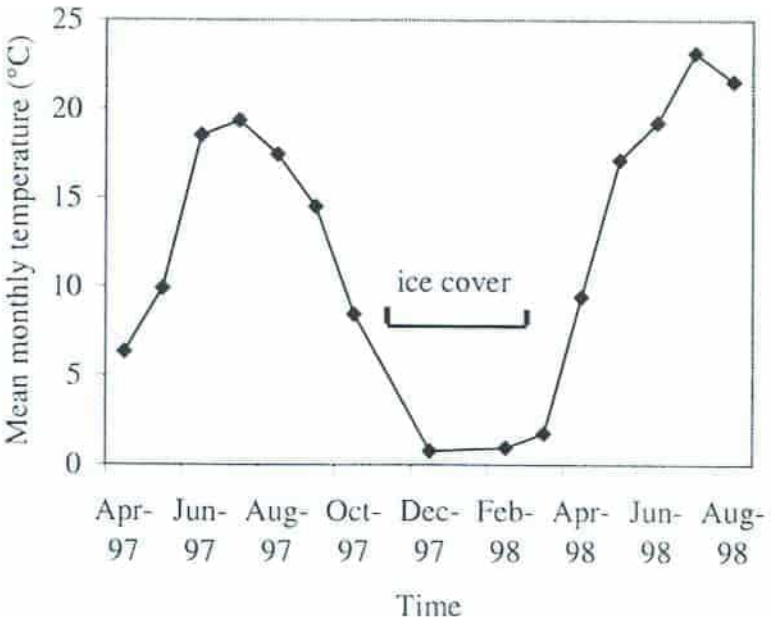


FIGURE 1 Average monthly temperature (°C) of the surface waters in the constructed wetland for the period April 1997 to August 1998.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

populations varied with depth at all sites but appeared to fluctuate most as a function of the season, especially near the sediment–water interface. In fact, the largest SRB populations were encountered at site 1 during the winter sampling in December. The smallest SRB populations were seen in the upper layer of sediments at sites 1 and 2 in April.

Surface and Porewater Chemistry

The pH of interstitial waters was between 7.00 and 8.50 (Figure 3) and remained fairly stable with respect to both depth and sampling time. A slight pH increase was observed near the sediment–water interface at site 1 in August, at site 2 in October and April, and at site 3 at all sampling dates. On the other hand, redox conditions varied greatly with depth and sampling time (Figure 3). Although anoxic conditions prevailed in the sediment deeper than 1–2 cm, slightly oxic conditions were encountered near the sediment–water interface at site 1 in April and August, whereas the sediments were anoxic in October. At site 2, suboxic conditions prevailed near the surface in October and April, whereas the surface sediments were slightly anoxic in August. At site 3, conditions were suboxic to oxic near the surface in October and April, whereas the sediments were completely anoxic in August. Samples were not analyzed for pH and E_h in December.

One set of data for iron and sulfate is missing for site 3 in December, because the peeper could not be recovered from under the ice. At all sites and sampling times, Fe was not detected in the overlying waters, except at sites 1 and 2 in December, which had low concentrations of Fe (Figure 4). For all sites, Fe concentrations increased drastically near or at the sediment–water interface, especially at site 1 in April, at site 2 in December, and at site 3 in April (Figure 4). In addition, large fluctuations were observed within the sediments, especially in the deeper portion of the profiles, where sedimentary particles were mixed with clays. Sulfate concentrations showed a very different trend: Concentrations were greatest in the overlying waters and decreased sharply in the sediments (Figure 5). Sulfate

Downloaded by [University of Ottawa] at 10:48 12 November 2015

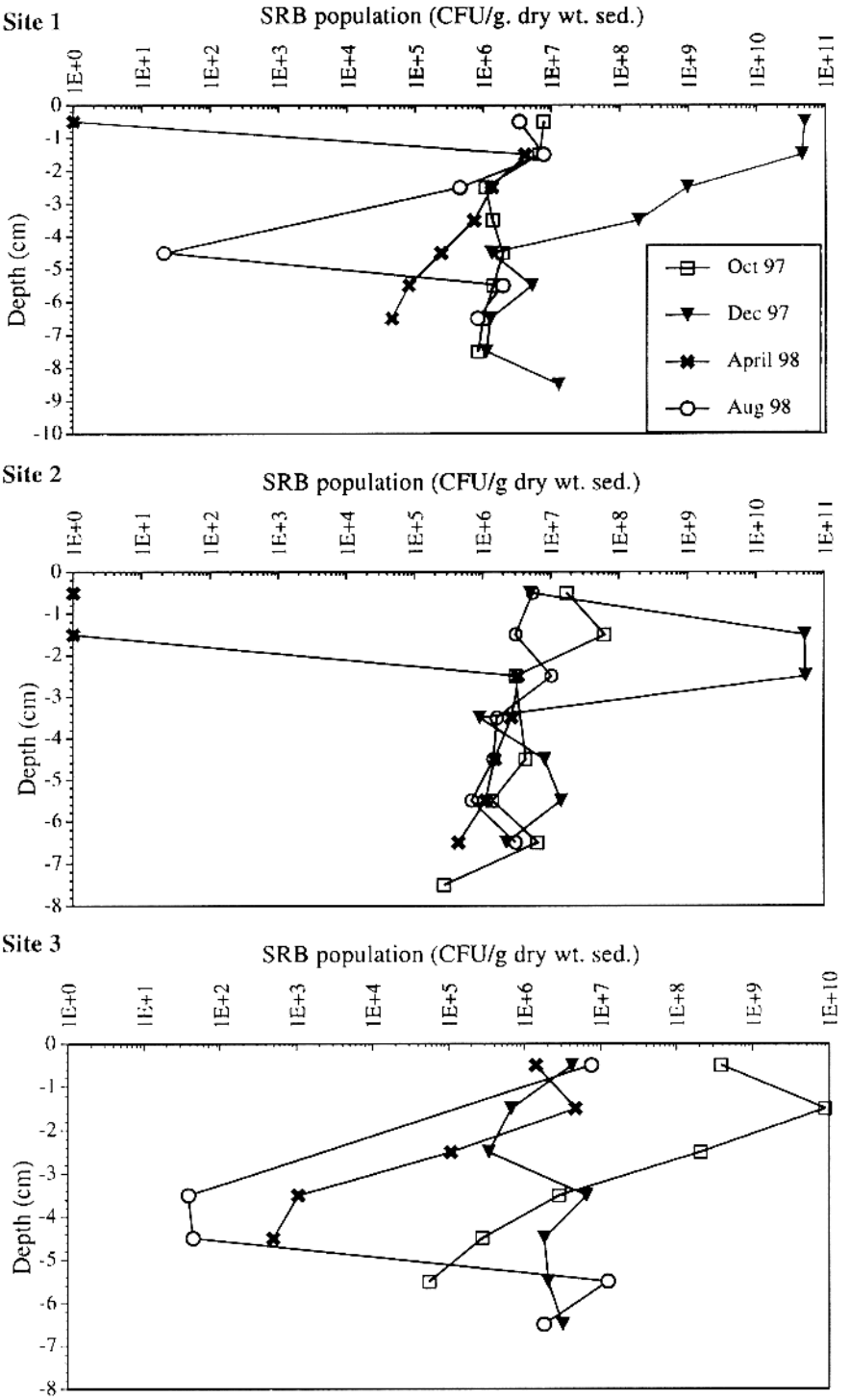


FIGURE 2 Seasonal variations of SRB populations (colony-forming units [CFU]/g dry wt. sediment) in the sediments of the littoral zone near the water inflow (site 1), in the middle cell (site 2), and near the water outflow (site 3). Notice the increase of SRB populations in December in the upper portion of the sediments at sites 1 and 2, and their absence in April.

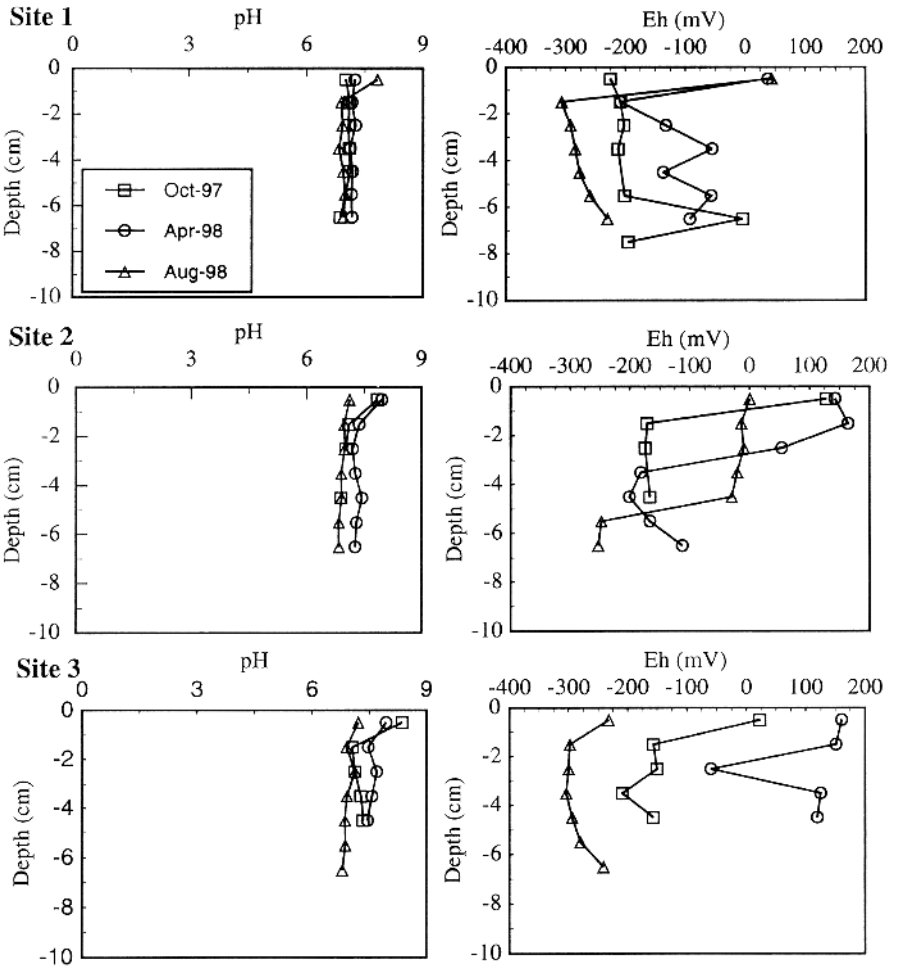


FIGURE 3 In situ pH and E_h profiles as a function of sampling dates in the sediments of the littoral zone near the water inflow (site 1), in the middle cell (site 2), and near the water outflow (site 3). Depth 0 cm corresponds to the sediment–water interface.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

concentrations never exceeded 300 μmol/L below the sediment–water interface and did not vary much as a function of time. On the other hand, seasonal variations were observed in the overlying waters at all sites (Figure 5). The largest SO_4 concentrations were encountered in December at sites 1 and 2, were less in April, and reached a minimum in August.

DOC concentrations in the surface waters varied on temporal and spatial scales (Table 2). DOC concentrations ranged from 5.96 to 12.04 mg/L and differed significantly between seasons (Table 3). Throughout the year, basis, DOC concentrations at the inlet were significantly lower than at the outlet. The same difference in DOC concentrations between the inlet and outlet also occurred at each sampling date. DOC concentrations were particularly high in June 97, reaching 9.50 and 12.04 mg/L at the inlet and outlet, respectively.

Sediment Chemistry

The organic matter content of the surface sediments varied slightly between the three sampling sites (Table 1), with slightly higher values at sites 2 (middle cell) and 3 (outflow) than at

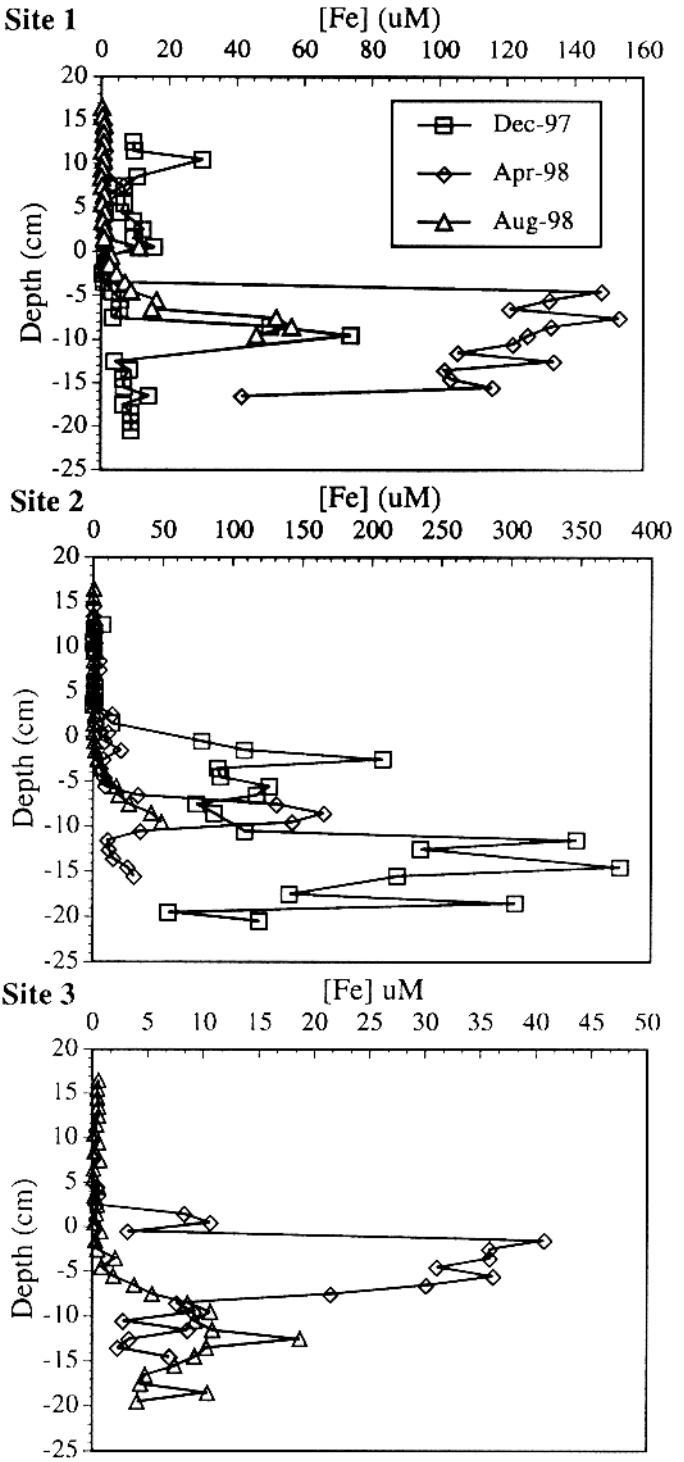


FIGURE 4 Fe concentration profiles in the overlying waters and in the porewaters for three sampling dates at site 1 (near the water inflow), site 2 (the middle cell), and site 3 (the outflow basin). Note the presence of dissolved Fe in the overlying waters at sites 1 and 2 in December.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Downloaded by [University of Ottawa] at 10:48 12 November 2015

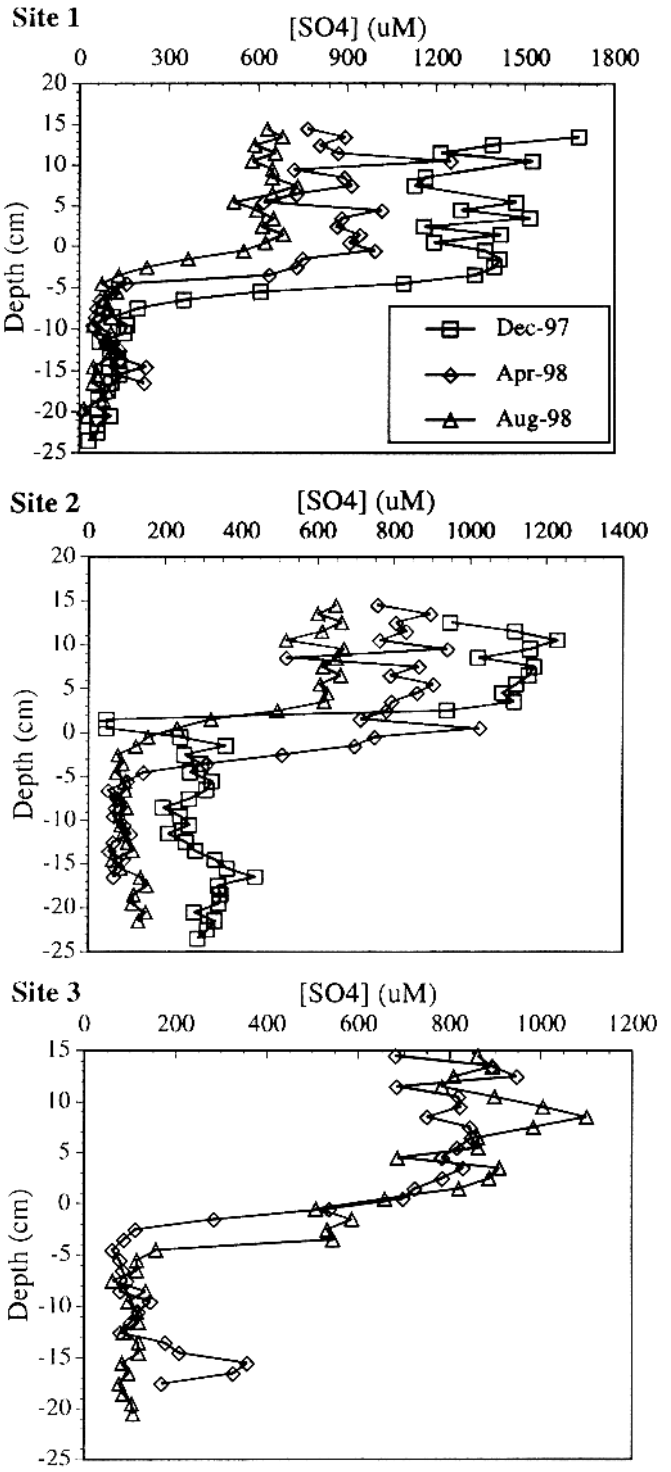


FIGURE 5 SO_4 concentration profiles in the overlying waters and in the porewaters for three sampling dates near the water inflow (site 1), in the middle cell (site 2), and at the outflow (site 3). Note the large concentrations of sulfate in December for sites 1 and 2.

TABLE 2 Average monthly concentrations[a] of dissolved organic carbon (DOC) in the surface waters of the wetland at sites 1 and 3

	DOC (mg/L)	
Sampling date	Site 1	Site 3
April 97	8.01 (1.26)[b]	8.74 (1.94)
June 97	9.50 (3.98)	12.04 (3.69)
August 97	5.96 (2.93)	8.20 (2.28)
October 97	7.26 (1.80)	8.63 (3.14)

[a]Samples were taken every 3 days during the course of each month.

[b]The standard deviation (n = 9–10) is given in parentheses.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

site 1 (inflow). The reactive iron fraction showed a slight increase near the sediment–water interface at all three sites, whereas the silicate fraction fluctuated with depth (Figure 6). Fe concentrations associated with the pyrite fraction were less than those observed in the Fe-reactive and silicate fractions. In fact, no Fe was detected in the pyrite fraction at site 3.

Discussion

Fe and S Cycling and Redox Fluctuations

The cycling of iron and sulfur in wetlands and other aquatic environments is affected by redox reactions, which are triggered by the mineralization of organic matter (Stumm and Sulzberger 1992). In fact, the rapid consumption of oxygen during the degradation of organic matter and the subsequent use of alternate electron acceptors can move the oxic/anoxic barrier toward the sediment–water interface and create anoxic conditions in the surficial sediments (Froelich et al. 1979). Such redox fluctuations were observed in the sediments of the Monahan wetland throughout the year, especially in the top 2 cm of the sediments (Figure 3), in which completely anoxic conditions were encountered in October at site 1 and in August at site 3. Redox measurements were not made in December, but the presence of reducing conditions in the surface sediments and in the overlying waters of sites 1 and 2 was inferred by the presence of soluble Fe above the sediment–water interface (Figure 4). Under reducing conditions, Fe-rich minerals such as Fe-oxides undergo reductive dissolution,

TABLE 3 Results of the two-way ANOVA test comparing DOC concentrations (n = 138) between the inlet (site 1) and outlet (site 3) and the four sampling dates

	Two-way ANOVA test		
Factor	Degrees of freedom	F-statistic	P
Sampling dates	3	17.48	0.000
Sites	1	4.43	0.037
Sampling dates sites[a]	3	1.10	0.354

[a]The interaction term compares the differences between sites within each sampling date.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

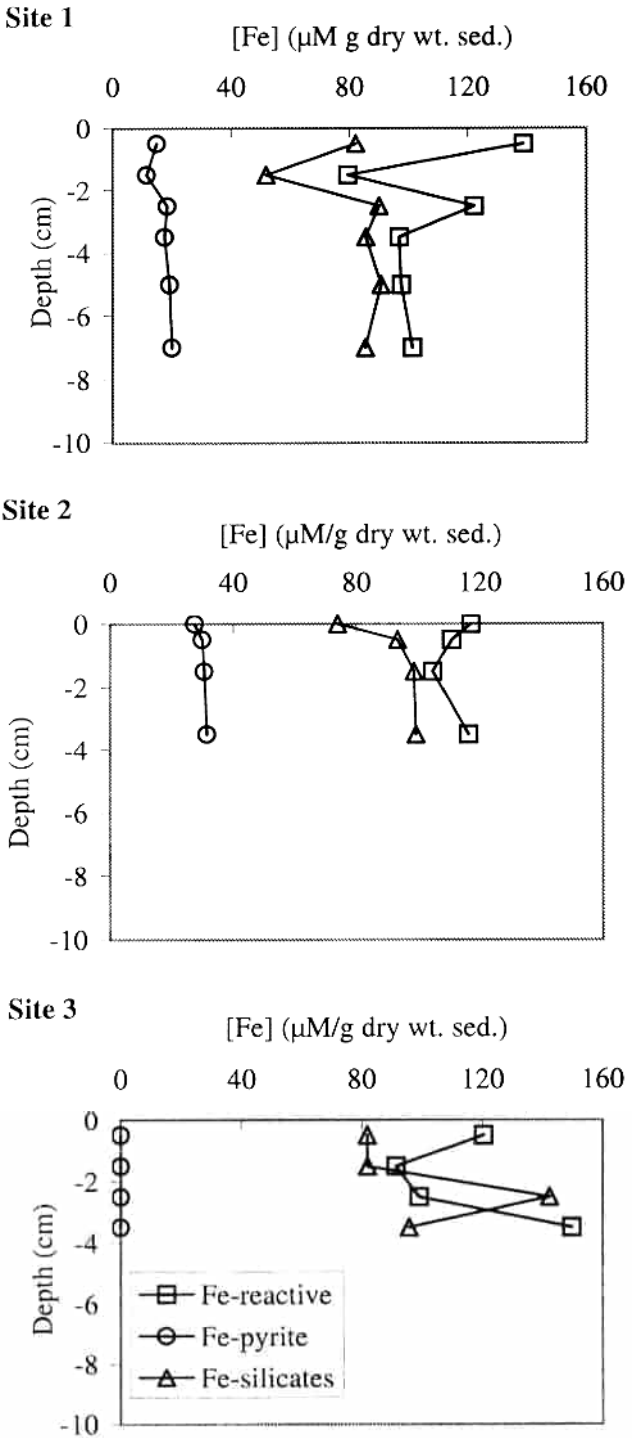


FIGURE 6 Profiles of Fe-rich fractions in the sediments of sites 1, 2, and 3 in October 1997 as determined by sequential chemical extraction. Fe-reactive was extracted with HCl, Fe-silicate with HF, and Fe-pyrite with HNO_3. Notice the absence of Fe-pyrite in the sediments of site 3.

which allows Fe(II) to either diffuse upward into the overlying waters or downward into the sediments (Stumm and Sulzberger 1992). The presence of an ice cover over most of the wetland during the winter months might have also contributed to the presence of anoxic conditions by limiting oxygen diffusion into the water. Redox fluctuations, however, were not constant within the wetland. For example, site 3 (outflow) often behaved differently from site 1 (inflow), and surface sediments near the inflow tended to be less oxic overall than the sediments at sites 2 and 3, even though they contained less organic material in the sediments and in the water at site 1 (Tables 1 and 2). These cell differences were probably caused by various degrees of oxygen consumption and differences in microbial activity throughout the year.

Sulfate concentration profiles in the Monahan wetland indicate that sulfate was reduced near the sediment–water interface (Figure 5), as indicated by the sharp decrease of concentrations in the sediments. Sulfate reduction was observed over the course of the year and did not appear to be limited to warmer months. In fact, sulfate concentrations within the sediments remained constant, whereas concentrations in the overlying waters increased during the winter months—probably because of the use of de-icing agents containing sulfate salts or sulfate impurities on the surrounding roads (Shanley 1994).

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Microbial Sulfate Reduction

The decrease of sulfate concentrations showed a positive correlation with the presence of SRB in the sediments (Figures 2 and 5). SRB were indeed recovered throughout the year and did not appear to be greatly affected by the presence of suboxic conditions in the surface sediments or by the temperature. SRB were generally present in the surface sediments where oxic conditions prevailed, except at sites 1 and 2 in April 1998, where they were absent (Figure 2). This suggests that SRB were either oxygen-tolerant or living in anoxic microenvironments within the oxic sediments. Oxygen usually inhibits microbial sulfate reduction (Widdel 1988), but sulfate reducers have been isolated from oxic to suboxic environments (Canfield and DesMarais 1991; Sass et al. 1997). Visual observation of the wetland surface sediments revealed the presence of small black patches rich in Fe-sulfides within the oxic sediments, indicating the presence of microenvironments. On the other hand, the absence of SRB in the surface sediments at sites 1 and 2 in April and their presence at site 3 suggest possible changes in population dynamics.

Our results also indicate that SRB thrived during the colder months. In fact, the largest populations were encountered in December, when the temperature of the water was ~1°C (Figure 2). The largest SRB populations also corresponded to the largest decline of sulfate concentrations (Figure 5), suggesting an apparent increase in sulfate reduction during the colder months. Our results are surprising, because sulfate reduction rates in natural aquatic environments usually decrease during colder months (Abdollahi and Nedwell 1979; Moeslund et al. 1994; Holmer and Kristensen 1996). However, recent work by Sageman et al. (1998) and Isaksen and Jorgensen (1996) showed that optimum growth temperature for SRB isolated from cold environments was often higher than the in situ temperature, but the sulfate reduction rates were comparable with those measured in sediments of temperate climates. Numerous studies have also suggested that cold temperature might not inhibit bacterial life but might diminish the affinity of the bacteria for substrates (Wiebe et al. 1992; Nedwell and Rutter 1994; Isaksen and Jorgensen 1996; Sageman et al. 1998). It is difficult to conclude from our results that substrate affinity was a key factor in SRB growth at cold temperature, because we did not identify the various types of SRB and organic substrates in the water. In fact, it is possible that the growth medium used for the enumeration (MPN) preferentially selected lactate-utilizing SRB, which might not be representative of the whole SRB population in the wetland. Regarding substrate availability,

our limited number of DOC values (Table 2) suggest that the pool of organic substrates varied throughout the year from one site to the other, being generally lower in the winter because of low primary productivity (Mann and Wetzel 1995). Our results indicate that to compensate for the low organic content of the sediments and the potential lower affinity for the substrates, SRB increased in number during the colder months, which had the effect of maintaining the sulfate reduction rates throughout the year. Clearly more work is needed on the characterization and availability of potential organic donors to assess the role of substrate affinity.

SRB and Fe-Rich Mineral Formation

The dynamics of SRB populations and their effect on sulfur and iron cycling affected the mineralogy of the wetland sediments. The constructed wetland was 2 years old at the time of sampling and originally contained clay material at the bottom. Results from the chemical extraction (Figure 6) indicated that the surface sediments were enriched in reactive Fe, indicating that Fe was bound to carbonates, oxides, monosulfides, and hydrous aluminosilicates (Huerta-Diaz et al. 1993). In most natural aquatic environments, the enrichment of Fe-reactive compounds corresponds to the formation of diagenetic Fe-oxides and Fe-monosulfides (FeS). Diagenetic Fe-oxides usually form when soluble Fe(II) from anoxic sediments diffuses upward toward the oxic–anoxic interface and is oxidized to Fe(III) (Fortin et al. 1993), whereas Fe-monosulfides precipitate as a result of sulfide production during microbial sulfate reduction (Berner 1984). Seasonal variations in Fe and S cycling are therefore responsible for the enrichment in reactive Fe in the constructed wetland. On the other hand, the Fe-silicate fraction showed no distinctive patterns but simply reflected the existence of the clay material emplaced during construction of the wetland and its redistribution through bioturbation. In fact, visual observation of the sediment cores indicated that the clay material in the deeper portion of the core was often mixed with black precipitates, probably Fe-sulfides. Our results also showed that pyrite (FeS_2) formed within the wetland, but only at sites 1 and 2. Pyrite formation is not a direct by-product of microbial sulfate reduction; its formation in aquatic environments is often attributed to the reaction of Fe-monosulfides with dissolved sulfides (Berner 1984; Schoonen and Barnes 1991; Donald and Southam 1999). Our results indicate that the formation of pyrite might have been inhibited in the outflow basin (site 3), perhaps because of a low production of sulfides. However, SRB populations in October were at their greatest, which suggests a large supply of dissolved sulfides (Figure 2). Clearly, the presence of SRB alone cannot explain the absence of pyrite at site 3; the solubility of pyrite is also a function of physicochemical factors, such as the presence of sulfide-complexing agents and the concentration on Fe (Howarth et al. 1983; Howarth and Merkel 1984). In fact, our results indicate that the concentrations of dissolved Fe in the anoxic sediments of site 3 were 3 to 8 times lower than the ones at sites 1 and 2, respectively (Figure 4).

In conclusion, Fe and S cycling in the young Monahan constructed wetland was active throughout the year, especially in the cold winter months, where large SRB populations were encountered. This suggests that metal removal in young wetlands, especially Fe, is effective in temperate climates, even when the temperature of the waters decreases drastically in the winter.

References

Abdollahi H, Nedwell DB. 1979. Seasonal temperature as a factor influencing bacterial sulfate reduction in a saltmarch sediment. Microb Ecol 5:73–79.

American Public Health Association. 1965. Standard methods for the examination of water and wastewater, including bottom sediments and sludge. Washington, DC: American Public Health Association, p 604–609.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Batal WH. 1989. Dynamics of the microbial populations in the substrate of the constructed wetland at the Big Five Tunnel, Idaho Springs, Colorado. Master's thesis, Colorado School of Mines, Golden, CO.

Berner RA. 1984. Sedimentary pyrite formation: an update. Geochim Cosmochim Acta 48:605–615.

Canfield DE, DesMarais DJ. 1991. Aerobic sulfate reduction in microbial mats. Science 251:1471–1473.

Carignan R. 1984. Interstitial water sampling by dialysis: methodological notes. Limnol Oceanogr 29:667–670.

Donald R, Southam G. 1999. Low temperature anaerobic bacterial diagenesis of ferrous monosulfide to pyrite. Geochim Cosmochim Acta 63:2019–2023.

Feng J, Hsieh YP. 1998. Sulfate reduction in freshwater wetland soils and the effects of sulfate and substrate loading. J Environ Qual 27:968–972.

Fortin D, Leppard GG, Tessier A. 1993. Characteristics of lacustrine iron oxyhydroxides. Geochim Cosmochim. Acta 57:4391–4404.

Froelich PN, Klinkhammer GP, Bender ML, Luedtke NA, Heath GR, Cullen D, Dauphin P, Hammond D, Hartman B. 1979. Early oxidation of organic matter in pelagic sediments of the eastern equatorial Atlantic: suboxic diagenesis. Geochim Cosmochim Acta 43:1075–1090.

Holmer M, Kristensen E. 1996. Seasonality of sulfate reduction and pore water solutes in a marine fish farm sediment: the importance of temperature and sedimentary organic matter. Biogeochemistry 32:15–39.

Howarth RW, Giblin A, Gale J, Peterson BJ, Luther GW III. 1983. Reduced sulfur compounds in the pore waters of a New England salt marsh. Environ Biogeochem 35:135–152.

Howarth RW, Merkel S. 1984. Pyrite formation and the measurement of sulfate reduction in salt marsh sediments. Limnol Oceanogr 29:598–608.

Huerta-Diaz MA, Carignan R, Tessier A. 1993. Measurement of trace metals associated with acid volatile sulfides and pyrite in organic fresh water sediments. Environ Sci Technol 27:2367–2372.

Huerta-Diaz MA, Tessier A, Carignan R. 1998. Geochemistry of trace metals associated with reduced sulfur in freshwater sediments. Appl Geochem 13:213–233.

Isaksen MF, Jorgensen BB. 1996. Adaptation of psychrophilic and psychrotrophic sulfate-reducing bacteria to permanently cold marine sediments. Appl Environ Microbiol 62:408–414.

Machemer SD, Wildeman TR. 1992. Adsorption compared with sulfide precipitation as metal removal processes from acid mine drainage in a constructed wetland. J Contem Hydrol 9:115–131.

Maehlum T, Jenssen PD, Warner WS. 1995. Cold-climate constructed wetlands. Water Sci Technol 32:95–101.

Mann CJ, Wetzel RG. 1995. Dissolved organic carbon and its utilization in a riverine wetland ecosystem. Biogeochemistry 31:99–120.

Moeslund L, Thamdrup B, Jorgensen BB. 1994. Sulfur and iron cycling in a coastal sediment: radiotracer studies and seasonal dynamics. Biogeochemistry 27:129–152.

Nedwell DB, Rutter M. 1994. Influence of temperature on growth rate and competition between two psychrotolerant Antarctic bacteria: low temperature diminished affinity for substrate uptake. Appl Environ Microbiol 60:1984–1992.

Nordstrom DK. 1977. Thermochemical redox equilibria of ZoBell's solution. Geochim Cosmochim Acta 41:1835–1841.

Postgate JR. 1984. Sulphate-reducing bacteria, 2nd edition. Cambridge: Cambridge University Press. 208p.

Reddy KR, Burgoon PS. Influence of temperature on biogeochemical processes in constructed wetlands: implications to wastewater treatment. Cold climate constructed wetland symposium; 1996 June 4–5; Niagra-on-the-Lake, Ontario, Canada. 23p.

Sageman J Jorgensen BB, Greeff O. 1998. Temperature dependence and rates of sulfate reduction in cold sediments of Svalbard, Arctic Ocean. Geomicrobiol J 15:85–100.

Sass H, Cypionka H, Babenzien HD. 1997. Vertical distribution of sulfate-reducing bacteria at the oxic–anoxic interface in sediments of the oligotrophic Lake Strechlin. FEMS Microbiol Ecol 22:2445–255.

Schoonen MAA, Barnes HL. 1991. Reactions forming pyrite: I. Nucleation of FeS_2 below 100°C. Geochim Cosmochim Acta 55:1495–1504.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

Shanley JB. 1994. Effects of ion exchange on stream solute fluxes in a basin receiving highway deicing salts. J Environ Qual 23:977–986.

Stumm W, Sulzberger B. 1992. The cycling of iron in natural environments: considerations based on laboratory studies of heterogeneous redox processes. Geochim Cosmochim Acta 56:3233–3257.

Tarutis WJ Jr, Unz RF. 1996. Biogeochemical fate of coal mine drainage pollutants in constructed wetlands. Curr Top Wetland Biogeochem 2:40–51.

Webb JS, McGinness S, Lappin-Scott HM. 1998. Metal removal by sulphate-reducing bacteria from natural and constructed wetlands. J Appl Microbiol 84:240–248.

Widdel F. 1988. Microbiology and ecology of sulfate- and sulfur-reducing bacteria. In: Zehnder AJB, editor. Biology of anaerobic microorganisms. New York: Wiley Interscience, p 469–585.

Wiebe WJ, Sheldon WM Jr, Pomeroy LR. 1992. Bacterial growth in the cold: evidence for an enhanced substrate requirement. Appl Environ Microbiol 58:359–364.

Downloaded by [University of Ottawa] at 10:48 12 November 2015

View publication stats

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

January 31, 2025

BY EMAIL

Attention: Aaron MacDonell
Director of Environmental Services
Kinross Gold Corp.

Dear Aaron MacDonell,

RE: Great Bear Project Mercury Study Plan

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or "Grassy Narrows"), we write in response to the Mercury Study Plan (the "Study Plan") prepared by WSP Canada Inc. on behalf of Great Bear Resources, as per the requirement in the Tailored Impact Statement Guidelines ("TISG") issued by the Impact Assessment Agency of Canada (the "Agency" or "IAAC") for the Great Bear Gold Project (the "Project") on August 1, 2024.

The TISG requires the proponent to "submit a study plan to the Agency with sufficient time to facilitate a review by experts and interested parties and to inform the studies undertaken." With respect to the study plan, the IAAC notes in the TISG that "the potential for project contributions to methylmercury production in downstream watersheds requires a detailed and robust analysis" that includes "establishing baseline methodology and effects assessment methodology related to methylmercury." (emphasis added)

Our experts have previously raised significant concerns with respect to the quality and quantity of baseline data and monitoring completed to date, and the monitoring planned, with respect to the Great Bear Gold Project. These concerns remain. The Study Plan does not provide us with adequate assurance that this preliminary work will be accurately and adequately completed before the proponent moves forward with the necessary studies and engages in risky Advanced Exploration ("AEX") construction and mining activities. Any studies completed based on erroneous and unreliable data will not provide Grassy Narrows with the necessary information we need to properly assess the potential impacts of the Project on our inherent, Aboriginal, and Treaty rights, nor will it provide the External Technical Reviewers ("ETR") with the technically rigorous and accurate information that they need to assess the impacts of mercury and methylation during the Impact Assessment process.

Our experts are also concerned with the effects assessment methodology proposed, including the use of inadequate baseline data, unclear monitoring, flawed ML-ARD work, and unsuitable modelling software.

The proposed software has technical limitations that will prevent it from being successfully applied in the manner proposed to address the biogeochemical aspects of mercury methylation across the landscape and methylmercury uptake by biota. The Study Plan indicates that the software will not be modeled downstream of the Project site and important details, such as a

mixing zone in between “nodes”, cannot be simulated in sufficient detail. As well, the model does not intend to assess cumulative impacts and methylation potential at the discharge point, downstream and throughout the broader river system.

The Study Plan thus presents a model that is unable to predict mercury biogeochemical processes, and which is dependent on background data and proposed monitoring that is insufficient. As we address below, any study based on this Plan is bound to fail and will be inadequate for its intended purposes as outlined in the TISG.

Request for extension to provide comments

The IAAC directed the proponent to submit a study plan with “sufficient time to facilitate a review by experts and interested parties.” (emphasis added) A few weeks is not enough time for Grassy Narrows to complete the necessary review, particularly because a significant portion of the review period extended over the Christmas holidays. The holidays are one of the only times when Grassy Narrows people are usually able to lower the level of stress and anxiety that the mercury crisis and industrial threats have brought to the community. Establishing short comment periods for critical plans related to toxic threats over the holidays exacerbates the stress and anxiety which have fueled a well-documented mental health and suicide crisis in Grassy Narrows. This is a concern that Grassy Narrows has explained repeatedly to Kinross and to the IAAC. The fact that this grave concern is being ignored is emblematic of the unilateral, coercive, reckless, and disrespectful nature of this Project and this process to date. The timeline provided by Great Bear is insufficient to review the proposed Study Plan, to engage with our experts and our community in a fulsome manner, to carry out our governance process, and to develop a fulsome response.

While you insist that you will not pause your work on the Impact Assessment as you must adhere to the Impact Assessment timelines, the IAAC continues to tell us that this is not the case. The IAAC informs us that the proponent can agree to a pause in the Impact Assessment process at any time. As well, the IAAC has assured us that there is no deadline by which the proponent is required to submit the Study Plan. In fact, IAAC agreed that it would be proper for the ETR to have the opportunity to review the Study Plan and provide input prior to proceeded with the studies. The ETR Terms of Reference have yet to be set, the selection process has yet to be finalized, and its membership has yet to be selected. It is premature to close the comment period on the Study Plan.

It is in everyone’s interest for Grassy Narrows and our external experts to have enough time to review the Study Plan prior to proceeding with the study/studies to ensure that the studies are “detailed and robust”, the ETR has the information they need to adequately assess methylation-related issues, and the Impact Assessment is completed in a technically rigorous manner. If the study proceeds without sufficient time for effective peer review, or with a flawed methodology, then its results will not be reliable. It is not prudent nor rational to proceed with the Study Plan in these circumstances. We reiterate our request for an extension to provide fulsome comments.

Preliminary comments

We have been unable to complete a fulsome review of this critical document which will inform the proponent’s analysis of methylmercury, a key concern identified by Grassy Narrows during the Planning Phase of the federal Impact Assessment and throughout other regulatory review processes. However, as you insist that you will move forward with the studies without us, we are submitting our preliminary comments.

We have also enclosed two initial reports from our experts who have completed a preliminary technical review of the Study Plan to date: (1) Preliminary Report by Dr. Brian Branfireun, and (2) Preliminary Report by Dr. Kevin Morin. Note that Dr. Branfireun is an internationally recognized expert in the field of watershed biogeochemistry and the environmental cycling of mercury, including methylation, and his insights with respect to the methodologies proposed are particularly valuable.

Grassy Narrows' previous submissions should also be meaningfully integrated into a revised Study Plan, including our initial March 2024 submissions and subsequent submissions from Grassy Narrows and our experts in response to the PTTW, ECA for ISW, and Closure Plan applications. These submissions include important content that relates to the Study Plan, including information about Grassy Narrows' concerns and priorities; the sufficiency of generic guidelines for the protection of aquatic wildlife; deficiencies in the components of the planned study, including with respect to baseline data, monitoring plans, ML-ARD, groundwater modelling, and mitigation plans, among other things; and deficiencies in the review process to date.

1. **The proponent's reliance on achieving on/off site water quality that complies with PWQO and CCME water quality guidelines is inadequate and inappropriate when considering mercury and methylmercury in water, and methylmercury uptake by biota.**

The Plan states that to date, water quality monitoring shows that mercury and methylmercury concentrations in water are below Canadian Council of Ministers of the Environment ("CCME") water quality guidelines for the protection of aquatic life. It is clear that the proponent intends to apply CCME guidelines to the Project as "comparisons", but also as regulatory thresholds from a compliance standpoint.

Dr. Branfireun continues to opine that CCME guidelines for mercury and methylmercury are "useless for the protection of fish consumers, and even if discharges or indirect effects were a fraction of these guideline limits there would be significant potential for downstream impairments of aquatic resources." The CCME guidelines for total mercury and methylmercury for the protection of aquatic life are significantly above background levels. For example, the CCME guideline for total mercury in surface water is roughly 10-20-fold higher than uncontaminated baseline levels of mercury in the English River watershed. Previous submissions by Dr. Branfireun are clear that any increase in mercury above baseline in water would be expected to be reflected in walleye.

The CCME document itself provides that it "does not address exposure through food or bioaccumulation to higher trophic levels" and that "if the ultimate management objective for mercury is to protect high trophic level aquatic life and/or those wildlife that prey on aquatic life, more stringent site-specific application of these water quality guidelines may be necessary." Stringent site-specific guidelines are necessary in the circumstances. These site-specific guidelines must take into account the specific ecosystem, watershed, bioaccumulation, subsistence human consumers of high trophic level fish and wildlife, cumulative impacts, and the ongoing mercury crisis in Grassy Narrows. Grassy Narrows has raised this issue consistently since its first submission on the Great Bear Gold Project, and we have yet to see it reflected in the project plans including this Mercury Study Plan. The information that Grassy Narrows and its experts have provided about mercury and methylation continues to be ignored.

It is unclear what guideline levels, if any, are being proposed for sulphate, and for other parameters that impact methylation including DOC, temperature, light penetration, and pH, among others. However, the sulphate guideline levels for the receiving environment proposed in the ECA application were found by Dr. Branfireun to be entirely inappropriate for the purpose of preventing methylation impacts. If Kinross is planning to use those same levels here, then the results of this study will be erroneous.

The Study Plan must establish site specific criterion for mercury, methylmercury, sulphate, and other parameters that impact methylation, based on appropriate baseline data, and the site-specific factors noted above, not based on generic national standards that have not been designed for bioaccumulation nor for subsistence fish eaters and/or previously exposed populations. Methodology that relies on "useless" comparators and guidelines will not lead to an analysis that is "detailed and robust."

2. **The background data collected as part of the baseline studies for this Project are largely erroneous or their interpretation is flawed, which makes them insufficient to detect whether the project will have a measurable impact on fish mercury levels in the future.**

Grassy Narrows continues to raise concerns with respect to the background data collected by the proponent as part of their baseline studies. The proponent has not corrected many of the baseline study problems identified by Grassy Narrows' experts. Serious data quality problems remain and any methodology that proposes modelling based on such erroneous data will lead to study results that are inaccurate and ineffective, rendering the entire study useless, and posing serious risks to Grassy Narrows.

Dr. Branfireun continues to opine that "in the context of the protection of fish consumers, nearly all of the background data for total mercury are useless and stated incorrectly." The background mercury data in water is incorrect. The data provided for mercury are not data but are instead detection limits of the contract laboratory. The detection limits for methylmercury are higher than background levels in the English River. Concentrations reported for sulphate have also been erroneous up until May 2023 when the proponent appears to have changed analytical methods or laboratories which was not documented, contrary to best practices.

The baseline studies and proposed methodology with respect to biota are similarly inadequate. The proponent has not collected consistent species to allow for comparison between years, assessed both high trophic sport fish and low trophic indicator species, nor identified the frequency and duration of any studies.

The Study Plan relies on background data about mercury and sulphate that will inform modelling efforts and trigger undefined actions should they change. Dr. Branfireun opines that the proponent proposes to use an "inappropriate analytical approach" that will "reliably generate non-data that will not capture trends in mercury concentrations across most of the sampling sites in the project area."

The baseline studies have a number of other key deficiencies including:

1) The baseline studies are being conducted after activities that can impact methylation (such as road and machine track construction, forest clearing, drilling, soil impacts, and other industrial activities) have already occurred. This makes it impossible for most sampling sites to establish a baseline that is free of project impacts or those from other

projects.

2) Further activities that can impact methylation are planned to be carried out over the study period including extensive Advanced Exploration activity that includes activities normally considered to be mine construction. This will further interfere with the ability to establish a proper baseline.

3) There are no baseline sites in the Chukuni River that are upstream of the potential impacts of other mine sites including the Red Lake Mine and the Madsen Mine. Therefore, the baseline will likely reflect contaminated conditions which will obscure impacts from this project.

4) There are no baseline sites downstream of Pakwash Lake even though dissolved methylmercury and sulphate can travel long distances downstream and have impacts large distances from the discharge point.

5) The Plan is lacking detail so the precise sampling purpose, locations, protocols, and durations cannot be evaluated.

Grassy Narrows has repeatedly expressed a lack of trust that a profit motivated gold mining company, nor its partners, can be relied upon to establish a credible baseline. The highly critical expert reviews of the baseline work to date and the monitoring plans further substantiate Grassy Narrows' concerns. Grassy Narrows has repeatedly requested that the Crown or the proponent support Grassy Narrows to carry out a credible baseline study. However, neither the Crown nor Kinross have supported this work to date. The result is that the baseline work and plans to date are fundamentally flawed and incapable of effectively supporting risk assessment and mitigation.

Well-designed baseline studies are required to be carried out over a number of years in order to establish a baseline with a reasonable level of confidence in the range of natural variation in the baseline. Without this, it will be impossible to know whether changes seen during monitoring are due to the project or due to natural variation.

3. **Metal Leaching and Acid Rock Drainage prediction methods are improper.**

Another key input into the Study Plan is the prediction of which substances will be generated by the overburden, ore, and tailings from the project and their concentrations (ML-ARD). Previous submissions by Source Environmental note that the project has yet to complete a credible contaminants of concern assessment.

Dr. Morin similarly explains that the proponent continues to use the same ML-ARD approach and testing as Advanced Exploration and fails to follow guidance in the federal Prediction Manual of best practice and industry standards which are required under Ontario regulations. Where the proponent has committed to conducting certain tests, such as the tests for geochemical characterization, the proponent has not released most of its results.

As well, the proponent plans to use incorrect analytical methods in the proposed studies which are flawed and "will underestimate the amount of mercury in Great Bear mined materials including the walls of underground workings and pits, waste rock, overburden, soil, and tailings." Dr. Morin opines that the proposed methods are "not appropriate, reliable, and safe for the Mercury Study." He adds that the proposed groundwater modelling is similarly unreliable. Dr.

Morin concludes that he expects that the proponent will underestimate the important geochemical input and groundwater flow leaving its Gear Bear site which is “critical for a reliable outcome from the proposed Mercury Study.”

The proponent should not proceed with the Study Plan until there is high quality ML-ARD data and baseline data over multiple years for the model, and a credible monitoring plan in place. This must also be completed before the proponent proceeds with further activities that could cause potential impacts, including impacts to baseline data, for example, AEX construction, road and trail building, etc.

4. **The assimilative capacity of the receiving waters as a mitigation strategy for excess sulphate loading is not supported by the available data.**

The proponent continues to present a mitigation strategy that involves “discharging treated effluent to a large receiving watercourse (Chukuni River) that has a high oxygenation level and high assimilative capacity.” Our experts have commented on this “strategy” in previous submissions, explaining that this presents an erroneous understanding of methylation in aquatic environments. Dr. Branfireun responds in detail in his enclosed report. Dr. Branfireun concludes that:

- The strategies for treating effluent to be discharged to the Chukuni River do not target sulphate, and sulphate production from overburden and waste rock are likely to be greater than the proponent states.

- The proponent’s assessment of the watercourse’s assimilative capacity is inadequate as the proponent uses the average of entire daily discharge records for all of their dilution scenarios. There are potentially dire sulphate concentrations/volumes that could arise as a result of low flows combined with higher than stated effluent sulphate concentrations/volumes.

- The proponent relies on the high oxygenation level of the Chukuni River and does not consider the methylation potential of downstream waters, nor riparian areas and porewater, where this well-oxygenated river will deliver sulphate that may be many times in excess of background levels, in particular, to downstream mercury-sensitive lakes with high mercury methylation potential.

As with other components of this project, the cumulative impacts of this project in the context of other past, present, and planned projects does not appear to have been considered. There are at least five other gold mining projects proposed or operating in this watershed, as well as a pulp mill, sawmill, dams, diversions, clearcut logging, and municipal waste.

As well, the other mitigation measures described in the Study Plan are generally vague, unclear, and incomplete, and the list of potential effects is similarly incomplete and does not include potential effects from road and trail construction, site clearing, soil impacts, and water/dewatering, for example. There is insufficient information available for Grassy Narrows to adequately assess the proposed mitigation measures, and the information provided to date does not satisfy our experts that the proposed measures are effective and safe.

5. **The proposed model that the proponent plans to use to predict changes in sulphate, mercury and methylmercury concentrations in downstream watersheds and assess the potential impact on mercury levels in fish cannot technically**

deliver on those outcomes.

The Study Plan states that the proponent will rely on the GoldSim software modelling package to "simulate the volume and flow of water, and the concentrations and transport of chemical species, over the life of the Project." Our experts raise significant concerns with the GoldSim software, including its inability to be applied to an environmental mercury speciation scenario, and opine that additional information on the model is required before it can be assessed as an adequate model for the methylation studies.

Dr. Morin explains that mercury and sulphate predictions will only be generated at "nodes", the areas where the user-defined "conceptual boxes" connect. This means that the predictions will not simulate waterbodies in their environmental complexity, but simply represent the internal conditions that the proponent "chooses to assume, estimate, and simulate." It is particularly concerning that the Chukuni River will only be modeled at two "nodes", immediately above and below the property boundary. There are no "nodes" in Pakwash Lake nor further downstream where there are concerns of mercury methylation. There are also no nodes at a baseline site that is upstream from the impact of other local mines and therefore reflects uncontaminated conditions. Dr. Morin explains that "because of this "node" approach, important details like an initial dilution zone (a mixing zone) in the Chukuni River between Nodes CHK-1 and CHK-2 cannot be simulated in sufficient detail."

Dr. Branfireun explains that GoldSim "does not appear to ever have been applied to an environmental mercury speciation scenario" and attributes this to the software's model which "cannot incorporate mechanistic sorption/desorption reactions along flow paths, the biomethylation process, nor the complex interaction between mercury and sulphate." Dr. Branfireun concludes that, as a result, "the model proposed can never be successfully applied in the manner that is proposed. […] A mass balance model *cannot* by definition incorporate mechanistically the input and removal processes for mercury, and *cannot* address the biogeochemical aspects of mercury methylation across the landscape which are at the root of the potential impacts associated with the Great Bear proposal."

The Study Plan, and its model, also appear to ignore a number of parameters beyond THg, meHg, and sulphate which can impact methylation dynamics including DOC, light penetration, temperature, pH, and other parameters.

We are not satisfied that the GoldSim software proposed is appropriate or technically able to apply to the circumstances and produce a useful prediction. We are concerned that the technical limitations of the software, as well as the manner in which the proponent intends to use the software, will not produce reliable, accurate, or useful predictions. Our concerns are heightened given the ongoing data quality problems in relation to the Great Bear Project – flawed data will lead to flawed results, regardless of the software chosen.

<u>Conclusion</u>

Dr. Branfireun concludes in his report:

> "We have a water quality model that is not capable of predicting mercury biogeochemical processes, that is dependent on background data and proposed monitoring that is insufficient. The outcome will be the inevitable future conclusion by the Proponent that the combination has led to an inability to adequately predict changes in methylmercury concentrations in fish because of 'uncertainties' in GoldSim output, and "unforeseen

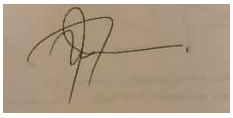
> complexities" in coupling abiotic and biotic compartments. The reality is that these uncertainties and complexities are completely foreseeable as outlined here. […] I conclude that the TISG's requirement that the Proponent provide *a detailed and robust analysis on the potential for project contributions to methylmercury production in downstream watersheds* has not been met based on the information provided in the Mercury Plan."

In light of our experts' opinions, we are concerned with this Study Plan and require additional time to complete a fulsome review and engage with our experts in a more in depth manner, and to engage with our other experts and our community.

We reiterate our request for a 90-day extension to provide comments. It is not prudent nor rational to proceed with a Mercury Study which is built on erroneous, incomplete, and inaccurate data and which uses flawed methodology that is unable to adequately address the biogeochemical aspects of mercury methylation across the landscape as required.

We expect that the proponent will not move forward with this Study Plan, the proposed studies, or any additional work on the site that may cause adverse effects prior to receiving and meaningfully integrating our comments.

Miigwetch,



Joseph Fobister
Lead Negotiator, Grassy Narrows Lands Protection Team

Cc:

ANA Lands Protection Team
Mike Fobister, Lands Team Supervisor (mike.fobister@googlemail.com)
David Sone, ANA Advisor (david.sone@gmail.com)
Jackie Esmonde, ANA Legal Counsel (jesmonde@cavalluzzo.com)
Sydney Lang, ANA Legal Counsel (slang@cavalluzzo.com)
Dan Mossip-Balkwill, ANA Advisor (dan.mossip.balkwill@gmail.com)
Annelies Cooper, ANA Advisor (annelies.cooper@gmail.com)

Kinross/Great Bear
Luke Crosby, Legal Counsel (luke.crosby@kinross.com)
David Bursey, Legal Counsel (burseyd@bennettjones.com)

Impact Assessment Agency of Canada
Ian Ketcheson, Vice-President, Indigenous Relations Sector (ian.ketcheson@iaac-aeic.gc)
Amy Sen, Acting Director, Ontario Region (amy.sen@iaac-aeic.gc.ca)
Natalie Boyd, Project Manager (natalie.boyd@iaac-aeic.gc.ca)
Ian Lindsay, Senior Consultation Analyst (ian.lindsay@iaac-aeic.gc.ca)
Elyse Batista (elyse.batista@iaac-aeic.gc.ca)
Carl Johansson, Team Leader, Ontario Region (carl.Johansson@iaac-aeic.gc.ca)

Great Bear Project
Potentially Navigable Waters

Transport Canada

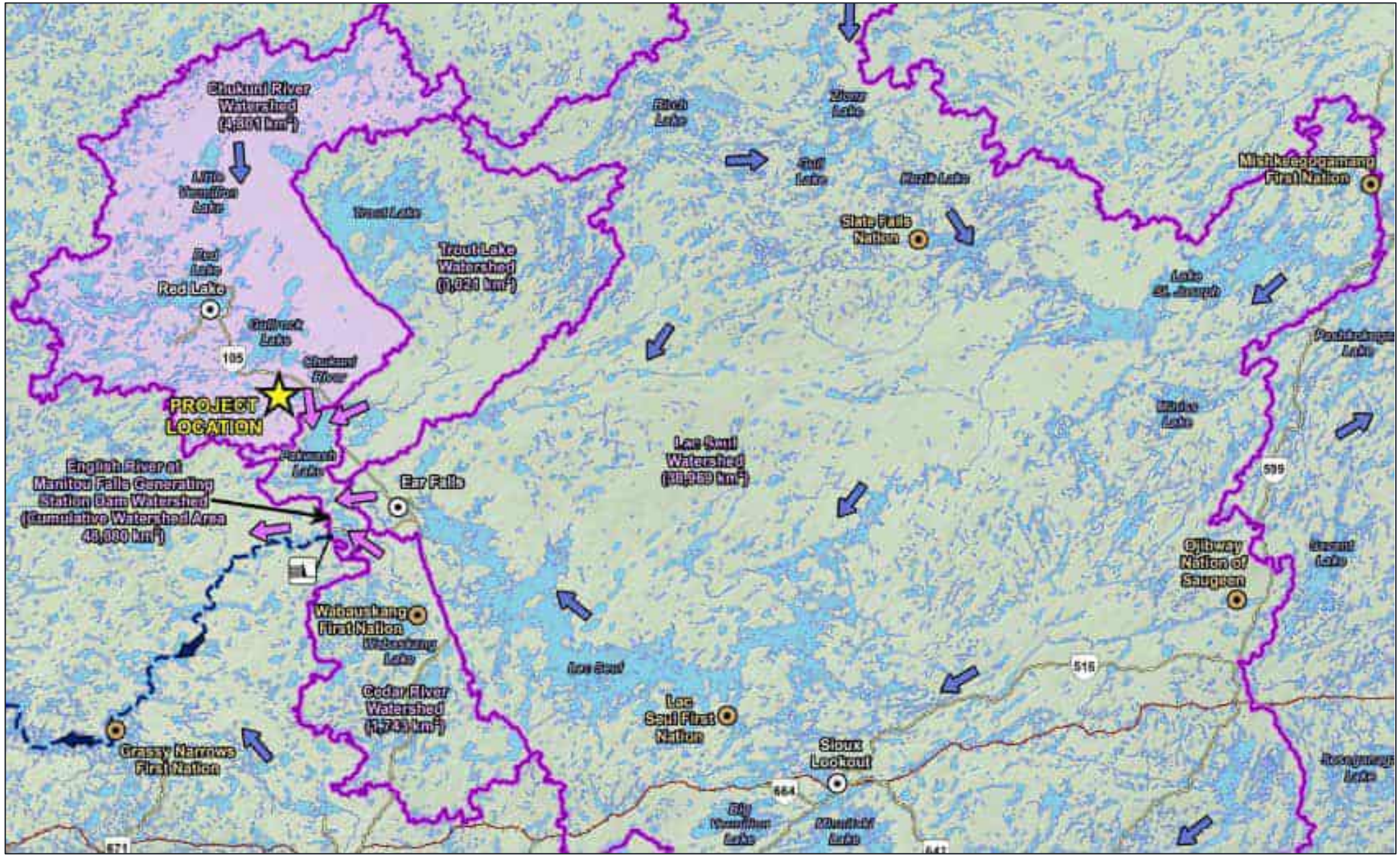
February 2025

Chukuni River

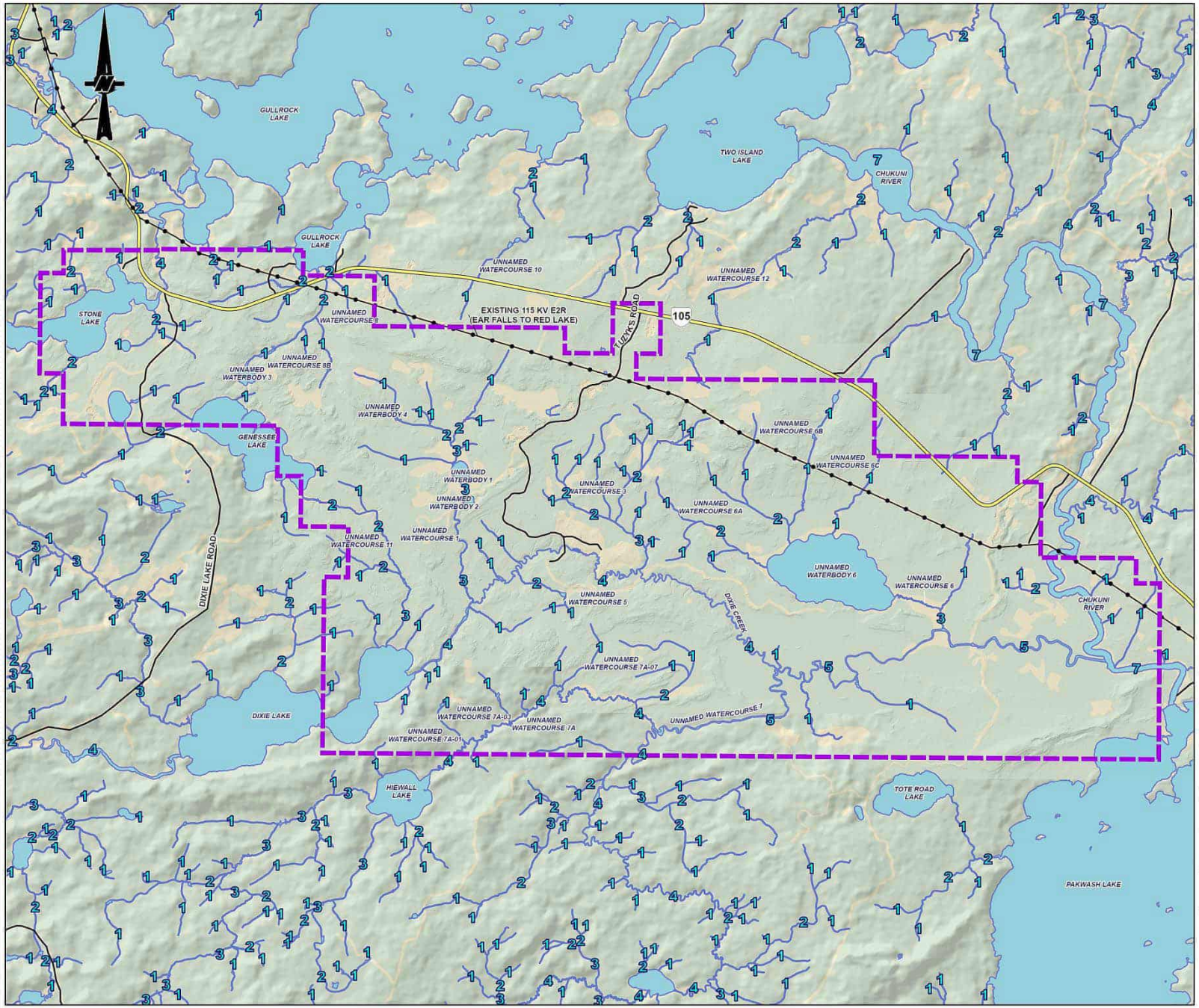
Agenda

- Introductions
- Hydrologic Setting
- Project Overview
- Waterbodies / Watercourses
- Consultation and Engagement
- Next Steps

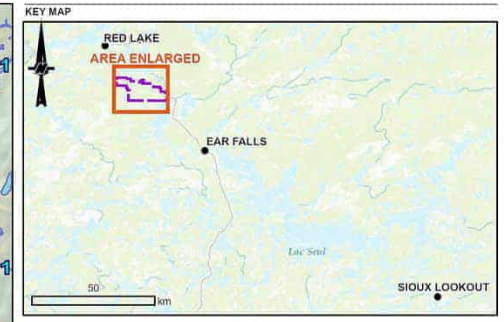
Regional Setting / Watersheds



Regional Setting / Watersheds



KEY MAP



SCALE 1:2,100,000

LEGEND

- PROJECT AREA (PROPERTY LIMIT)
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERBODY
- WATERCOURSE – LABELLED WITH STREAM ORDER NUMBER (STRAHLER METHOD)

0 0.5 1 2

1:71,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. TOPOGRAPHY ACQUIRED FROM 2022 LIDAR SURVEY.
3. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
PROJECT WATERCOURSES BY STRAHLER STREAM ORDER CLASSIFICATION

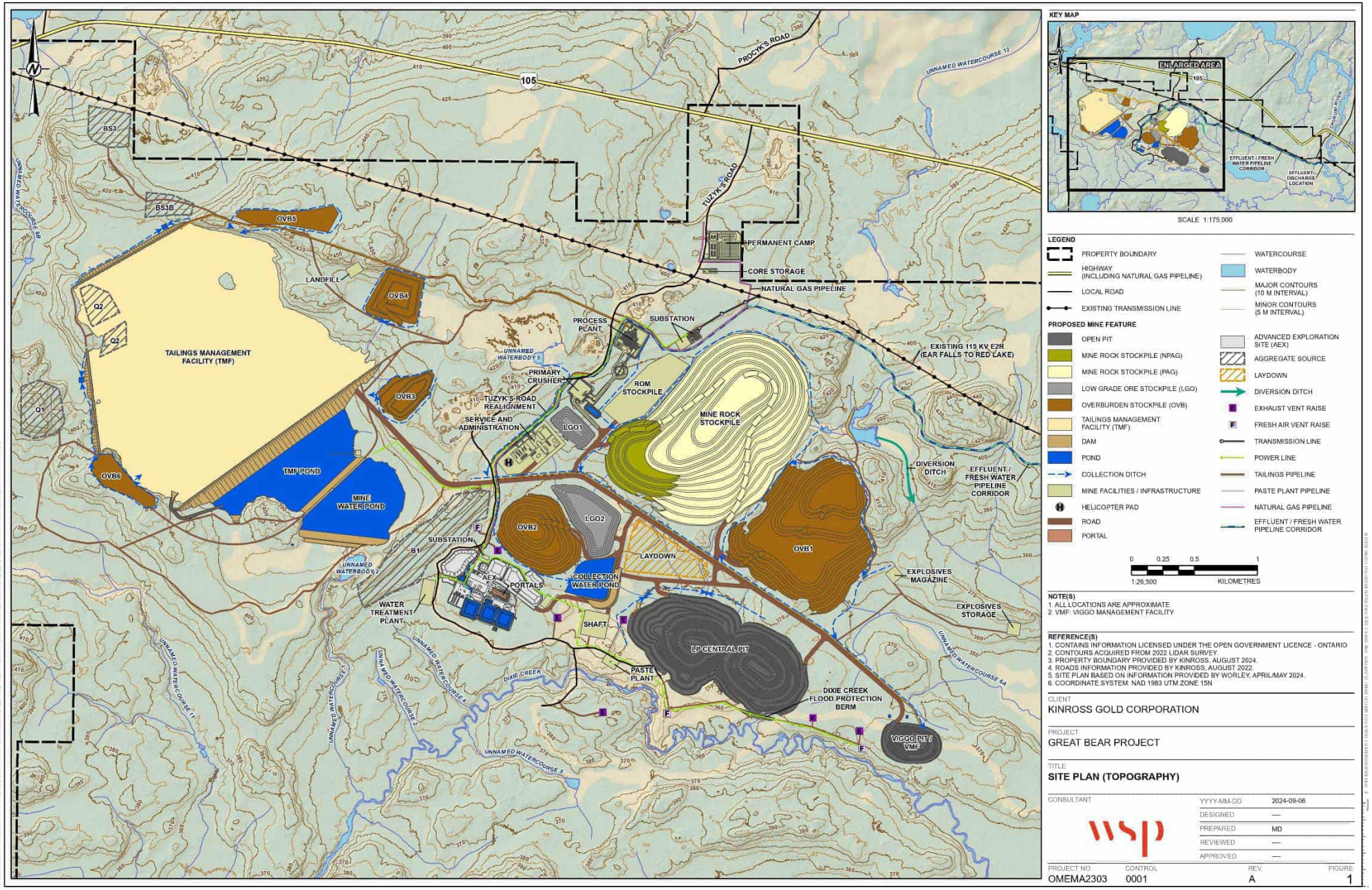
CONSULTANT

YYYY-MM-DD	2025-01-16
DESIGNED	----
PREPARED	KB
REVIEWED	MR
APPROVED	---

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	4.2

PATH: P:\2025\Projects\CA\CA0031271_Kinross_Great_Bear_Env\12_GIS\04_Arc\Maps\Strahler_StreamOrder_1.aprx PRINTED ON: AT 8:53:54 AM
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Preliminary Site Plan



Major Watercourse – Chukuni River

- Large watercourse primarily east of Project Area
- Proposed receiver for treated effluent from mine
- Known use for recreation and past / current use by Indigenous peoples
- Potential Project Effect on Navigation:
    - Effluent discharge pipeline and diffuser along the western shore and bottom of river
    - Intake pipeline along the western shore and bottom of river
- At proposed works, approximate width: 100 m and approximate depth: 13 m
- Location preferred for best mixing of effluent may not meet the criteria for minor works

Minor Watercourses

- There are a number of minor watercourses within the Project Area (mainly Stream Orders 1 and 2) that will be directly or indirectly impacted
- Many are very shallow, with intermittent flows at times of the year, or are blocked by natural vegetation overgrowth
- Accessibility is limited generally, and there is no known use for of these minor watercourses for navigation (recreation or past / current use by Indigenous peoples or the public)
- Potential Project Effect on Navigation:
  - Covered over by proposed developments
  - Permanently reduced flow due to topographic changes / diversion of non-contact water
  - Temporary limited reduction in flow (i.e., due to dewatering of excavations and mine workings

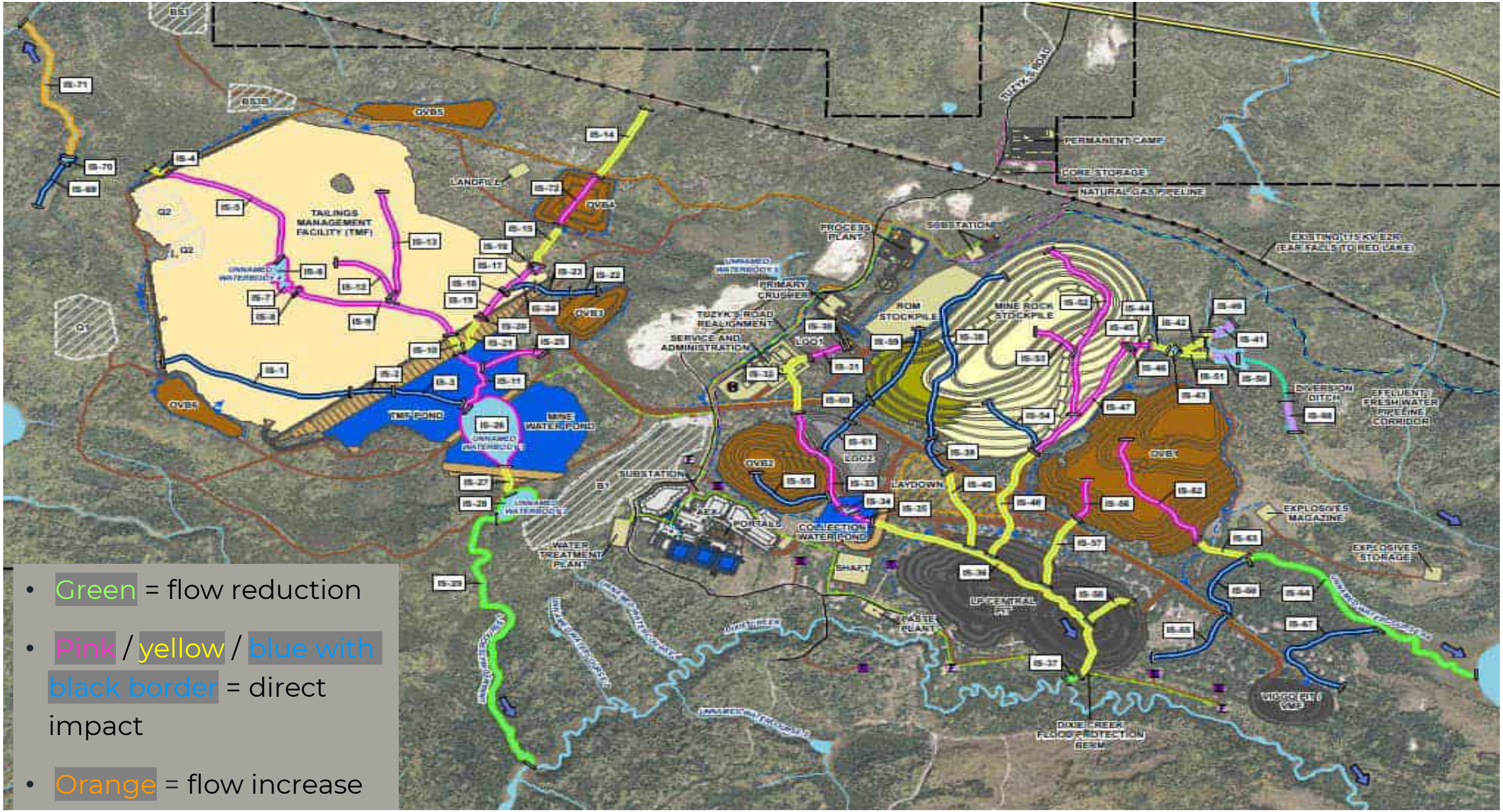
UW-3 (June 2022)

Minor Waterbodies

- There are a number of minor waterbodies that are present within or downstream of the Project Area (bordered by Stream Orders 2 and 3) that will be directly or indirectly impacted
- Many are very shallow, with intermittent flows at times of the year, or are blocked by natural vegetation overgrowth
- Accessibility is limited generally, and there is no known use for of these minor watercourses for navigation (recreation or past / current use by Indigenous peoples or the public)
- Potential Project Effect on Navigation:
  - Covered over by proposed developments
  - Permanently reduced flow due to topographic changes / diversion of non-contact water
  - Temporary limited reduction in flow (i.e., due to dewatering of excavations and mine workings

UW-1 (July 2023)

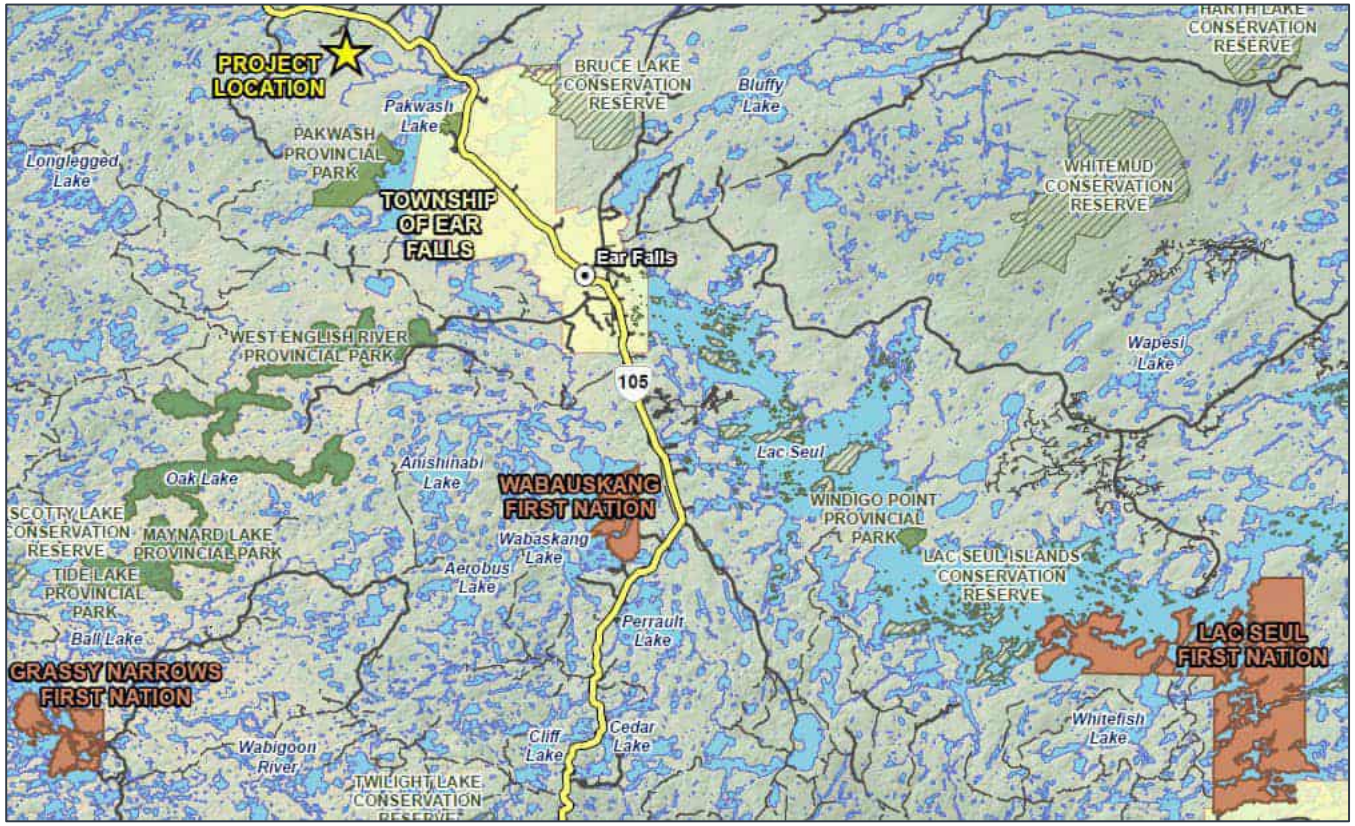
Preliminary Impacts



- Green = flow reduction
- Pink / yellow / blue with black border = direct impact
- Orange = flow increase

Consultation and Engagement

- Great Bear has attempted to obtain information regarding Indigenous use of local and regional waterbodies from each of Wabauskang First Nation, Lac Seul First Nation, Asubpeeschoseewagong Netum Anishinabek, and the Northwestern Ontario Métis Community. Navigability concerns have not been expressed to date for residual and primary watercourses or waterbodies within the Project footprint to date.



Consultation and Engagement

- **Wabauskang First Nation and Lac Seul First Nation**
  - Great Bear has sought input and validation of assumptions for Navigable Waters across community-based meetings, through the Environmental Management Committee and direct queries to community representatives.
  - Great Bear continues to work with both communities to validate and secure traditional knowledge and land use information for the Project. Great Bear has received information from WFN supporting that there is no known waterway use or significant value as part of the footprint of the Project.

Consultation and Engagement

- **Asubpeeschoseewagong Netum Anishinabek (ANA; Grassy Narrows First Nation)**
  - Great Bear is currently funding the completion of a traditional knowledge and land use study in support of Project development. To date, as part of ongoing dialogue no known usage of minor watercourses has been communicated by ANA.
- **Northwestern Ontario Métis Community (NWOMC)**
  - Great Bear is currently funding the completion of a traditional knowledge and land use study in support of Project development. To date, as part of ongoing dialogue no known usage of minor watercourses has been communicated by NWOMC. As part of communications Great Bear requested that information as aligned to current and future use was requested.

Thank you

wsp.com

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Ontario Region
600-55 York Street
Toronto ON M5J 1R7

Région de l'Ontario
600-55, rue York
Toronto (Ontario) M5J 1R7

February 28, 2025 **Sent by email**

Aaron MacDonell
Director, Environmental Services
Kinross Gold Corporation
25 York Street, Suite 15th Floor
Toronto Ontario M5J 2V5
Aaron.MacDonell@Kinross.com

Aaron MacDonell:

Subject: Comments on the Impact Statement Work Plan for the Great Bear Gold Project

Thank you for the opportunity to review the updated Impact Statement Work Plan (the work plan) for the Great Bear Gold Project (the Project) provided by Kinross Gold Corporation (Kinross) on December 19, 2024.

The Impact Assessment Agency of Canada (IAAC) appreciates that Kinross has provided a timeline for the key steps in the work plan. IAAC is available to discuss the following topics in order to better understand the strategies that will be used to meet the intended timelines for submission of the Impact Statement and to achieve an efficient regulatory process.

- Key issue topics meetings, including the order topics that would be discussed and any mechanisms that would be in place to gather and address feedback.
- Incorporating tasks associated with the External Technical Review (ETR) into the timeline, including the process for addressing ETR input.
- Coordination of federal and provincial permits and authorizations, including how information will be gathered efficiently during the Impact Assessment process.

…/2

Federal Permitting Coordination Initiative

As noted in the letter sent on November 12, 2024, the Government of Canada is offering federal permitting coordination support for projects where multiple permits are required prior to starting construction.

If Kinross remains interested in participating in this permitting coordination opportunity, IAAC would be pleased to set up a meeting with its Permitting Coordination Team promptly as discussions should begin well in advance of the Impact Statement submission. Items for discussion would include how Kinross intends to engage federal and provincial regulators (i.e., either directly or through the IAAC project team) and the associated timelines on how effective coordination would be achieved.

If you have any questions, please feel free to contact Dietrich Maahs, Project Manager, at (647) 239-7158 or at *Dietrich.Maahs@iaac-aeic.gc.ca.*

Sincerely,

Sen, Amy

Digitally signed by: Sen, Amy
DN: CN = Sen, Amy C = CA O = GC OU = EC-EC
Date: 2025.02.28 17:29:10 -05'00'

Amy Sen
Acting Regional Director, Ontario Region

c.c.: Luke Crosby, Kinross Gold Corporation
Sheila Daniel, WSP

August 14, 2024

Provincial Mining Recorder
Ministry of Northern Development, Mines, Natural Resources and Forestry
pro.ddm@ontario.ca

Via e-mail only

Dear Mining Recorder,

Great Bear Resources Ltd. – Notice of Intent to Lease SRO (Water Discharge Chukuni River)

Great Bear Resources Ltd. (GBR), a subsidiary of Kinross Gold Corporation, is continuing to explore and develop the Great Bear Project. In order to facilitate future development, please accept this application to **Lease of Surface Rights**, pursuant to Section 84 of the Mining Act. Background information related to this application is provided below.

- The specific purposes for which the Lease of Surface Rights are required as well as an adequate description and plans of the area (See Appendix 1, Location Map 1, Plan 1 and Plan 2)
- The area for the requested Lease of Surface Rights includes the shoreline and river that fall within the cells claims (see Schedule A). The area is subject to an existing GBR's Surface and Mining Rights Lease Request MIL 14-2 02/24 (CLM 607) and GBR holds 100% interest in the claims that are the basis of the application. The requested Lease of Surface Rights is not in a municipality.
- The area for the requested Lease of Surface Rights is located within a withdrawal over the 120-metre shoreline reservation along the Chukuni River.
- The undersigned is the President of Great Bear Resources Ltd.
- GBR has engaged Mr. Peter deHaan at TBT Engineering, Ontario Land Surveyor.
  Tel: 807.632.7594 pdehaan@tbte.ca

Thank you for your consideration of this matter. Please contact Bruno Almeida at 647-206-5946 if there are any clarifications required or if GBR can do anything to be of assistance.

Sincerely,

Luke Crosby

President
Great Bear Resources Ltd.

Encl. Appendix 1: Purposes for which the lease surface rights are required
Location Map 1: Chukuni Discharge Pipeline Diffuser
Plan 1: Chukuni Discharge Pipeline Diffuser Plan and Sections
Plan 2: Chukuni Discharge Pipeline Diffuser Plan and Sections
Schedule A: Claims that are the basis of the application to lease of surface rights

cc: Bruno Almeida, Senior Land Manager - GBR

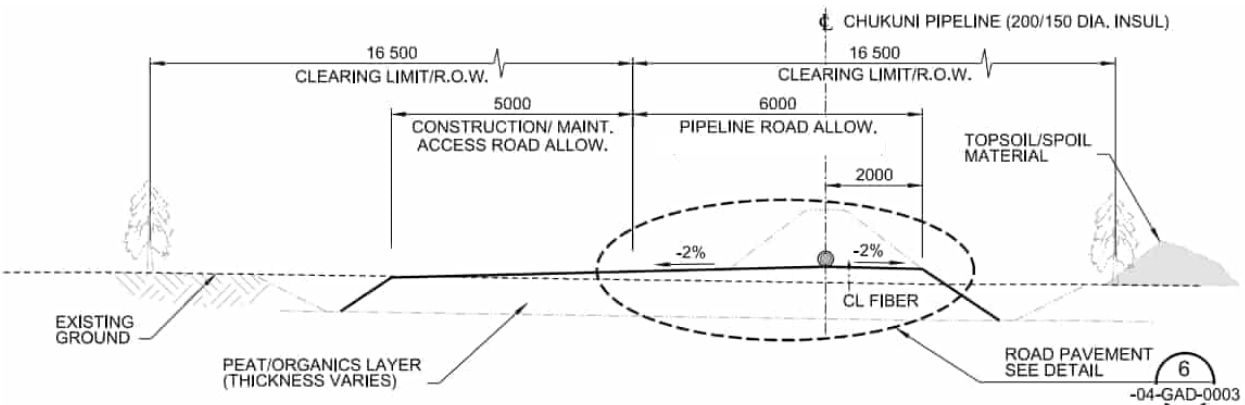
Appendix 1:
Purposes for which the lease surface rights are required

Rationale for land use:

As a part of the Great Bear Advanced Exploration Project, the permitted discharge effluent point, dictated in the Industrial Sewage ECA, is in the Chukuni River. Routing of the pipeline is based on getting to the discharge point in the most efficient way. All activities and routing are in the Great Bear Advanced Exploration Closure Plan.

Description:

The Advanced Exploration (AEX) project infrastructure planned within this land use will include all-season road access, an effluent discharge pipeline (HDPE), fiber line for instrumentation, parking and turn-around area and in-water diffuser. Access road will be built out of local fill materials and built to ensure that year-round access is possible for inspections, maintenance and emergency response. The effluent discharge pipeline, made of HDPE, will be laid on above ground and secured via local anchor points to prevent movement. A fiber line is to be laid next to the effluent pipeline for monitoring and instrumentation. Tree clearing will occur to a larger right of way (33 meters), similar to the rest of the effluent pipeline back to the AEX site, to ensure enough space for all infrastructure, grading and any risk of trees falling onto pipeline. Within the river, the right of way of 5 meters on either side of the pipeline (10 meters) is requested to ensure that some ability to adjust routing is possible to avoid any obstructions. All applicable permitting conditions and in-water work windows will be followed for the construction undertaken. For the in-water portion, a screened diffuser will be installed on the river bottom during the in-water works window. Due to the natural variation of a river bottom, some flexibility is required on exact routing of the pipeline into the river and this may vary by a few meters.

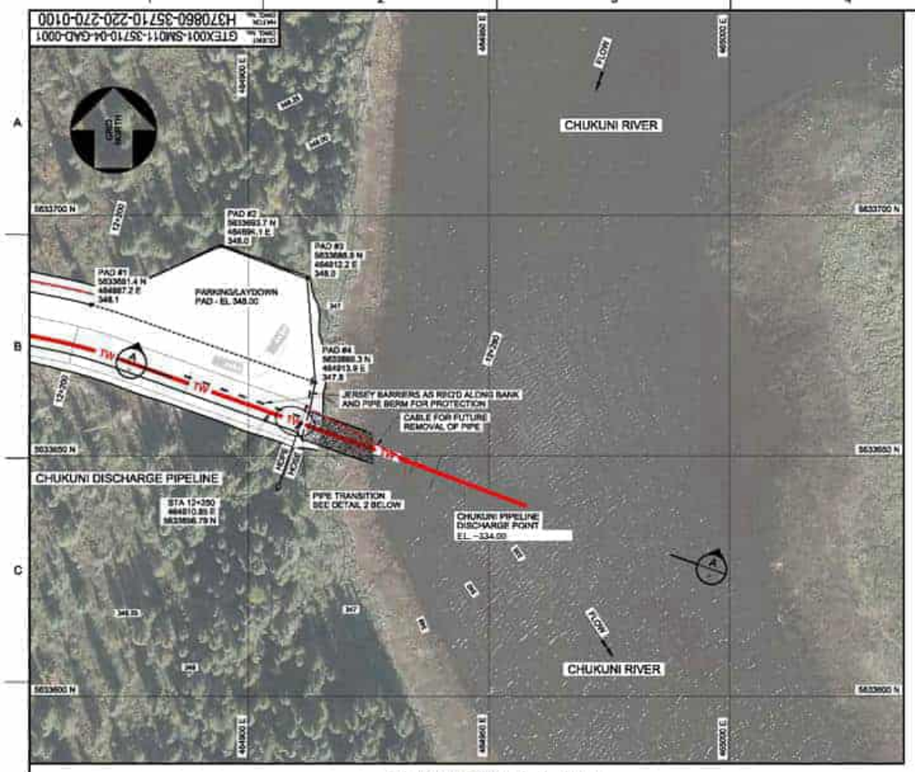


TYPICAL CHUKUNI PIPELINE SECTION ON CHUKUNI FLOODPLAIN

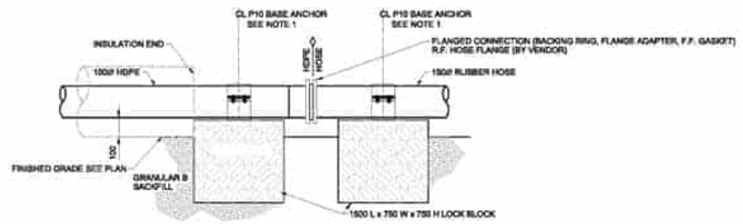
CHUKUNI ~ STA. 11+900 TO ~12+260
SCALE: 1:100

Location Map 1:
Chukuni Discharge Pipeline Diffuser

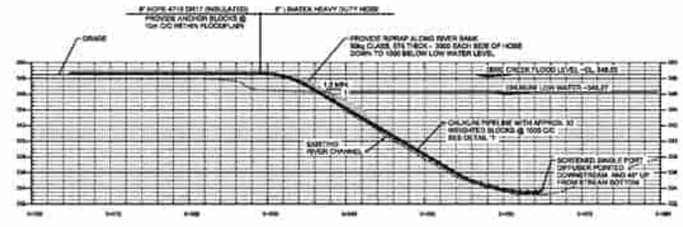
Plan 1: Chukuni Discharge Pipeline Diffuser Plan and Sections



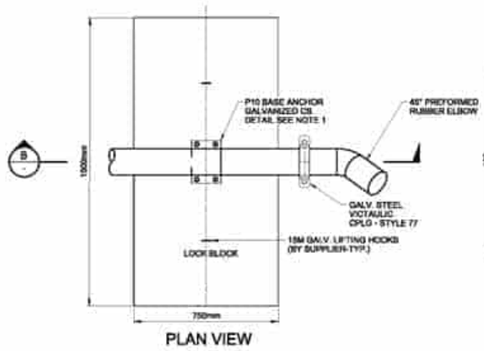
CHUKUNI DIFFUSER - PLAN
SCALE 1:500



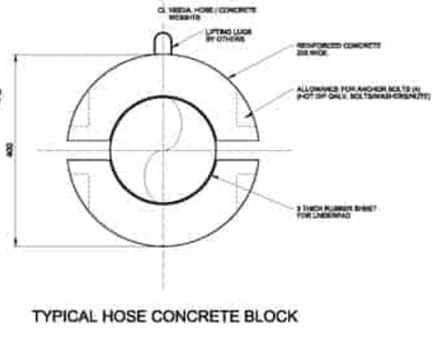
REDUCER SUPPORT CONNECTION
DETAIL 2



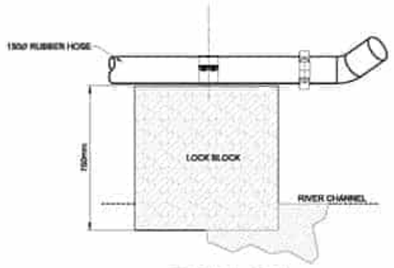
SECTION A



PLAN VIEW



TYPICAL HOSE CONCRETE BLOCK



SECTION B

DISCHARGE ANCHOR BLOCK DETAIL
DETAIL 1

ISSUED FOR PERMITTING

NOT FOR CONSTRUCTION

NOTES:
1. FOR TYPICAL NOTES AND DETAILS SEE DWG. GTEX001-SM011-35710-04-GAD-0002/0003/0004/0017.
2. BATHYMETRIC RIVER DATA PROVIDED BY KINROSS, APRIL 07/2023.
3. CHUKUNI DISCHARGE MIXING STUDY REPORT BY WSP, FILE #CNA3521046 DATED MAR. 30/2023.
4. WATER LEVELS BASED ON OBSERVATIONS AT HWY 105 LEVEL STATION. MAX. HIGH AND LOW WATER ELEVATIONS TO BE CONFIRMED.

0 5 10 15 20 25
1:500 SCALE IN METRES

Reserved space for Issue Reason stamp applied by Document Control

No.	DESCRIPTION	BY	CHK'D	DATE
0	ISSUED FOR CONSTRUCTION	D.N.	S.H.	2024-09-10

KINROSS

KINROSS GOLD CORP.
GREAT BEAR AEX DETAILED ENGINEERING

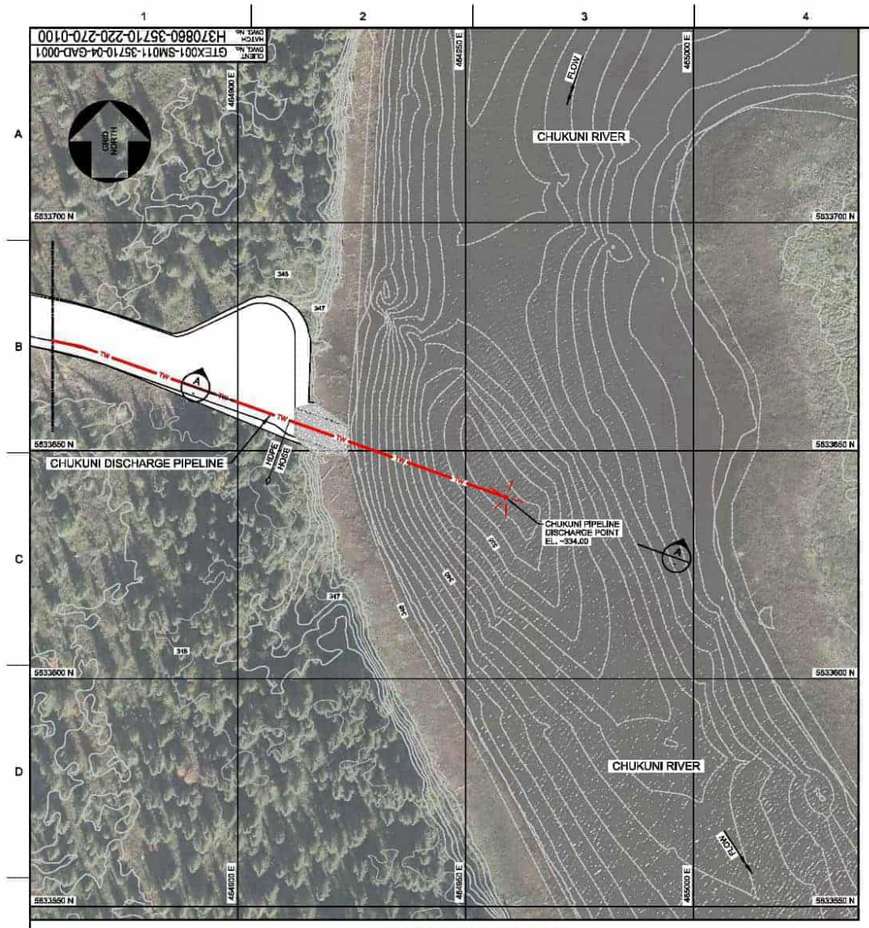
CHUKUNI DISCHARGE PIPELINE
DIFFUSER
PLAN AND SECTIONS

DRAWING No.	DRAWING TITLE
GTEX001-SM011-30009-04-GAD-0004	AEX SITE - SURFACE, ADVANCED EXPLORATION, OVERALL SITE LOCATION - PLAN

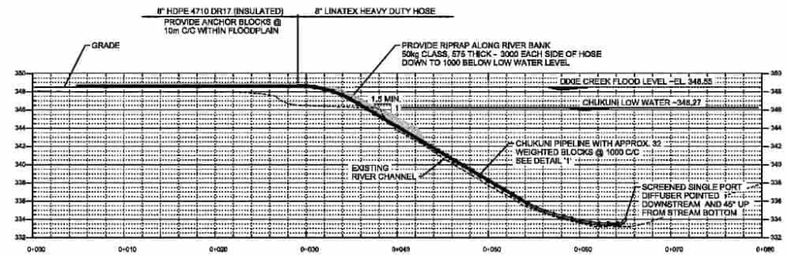
REFERENCE DRAWINGS | REG. PROFESSIONAL | REVISIONS | DRAWING APPROVAL STATUS: Approved for Use

SCALE: NTS (ON A1 SHEET)
CLIENT DWG. No.: GTEX001-SM011-35710-04-GAD-0001
HATCH DWG. No.: H370860-35710-220-270-0100
REV: 0
SHEET SIZE: A1

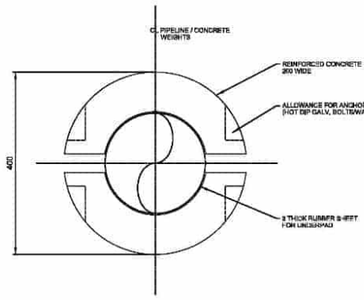
Plan 2: Chukuni Discharge Pipeline Diffuser Plan and Sections



CHUKUNI DIFFUSER - PLAN
SCALE 1:500



SECTION A



TYPICAL PIPE CONCRETE WEIGHT (35kg)

DETAIL 1

ISSUED FOR PERMITTING

NOT FOR CONSTRUCTION

NOTES:

1. FOR TYPICAL NOTES AND DETAILS SEE DWG. GTEX001-SM011-35710-04-GAD-0002/0003/0004.
2. BATHYMETRIC RIVER DATA PROVIDED BY KINROSS, APRIL 07/2023.
3. CHUKUNI DISCHARGE MIXING STUDY REPORT BY WSP, FILE #CMGS21045 DATED MAR. 30/2023.
4. WATER LEVELS BASED ON OBSERVATIONS AT HWY 105 LEVEL STATION. MAX. HIGH AND LOW WATER ELEVATIONS TO BE CONFIRMED.

0 5 10 15 20 25
1:500 SCALE IN METRES

REFERENCE DRAWINGS		REG. PROFESSIONAL
DRAWING No.	DRAWING TITLE	
GTEX001-SM011-30000-04-GAD-0004	AEX SITE - SURFACE, ADVANCED EXPLORATION, OVERALL SITE LOCATION - PLAN	

Reserved space for Issue Reason stamp applied by Document Control

REVISIONS				
No.	DESCRIPTION	BY	CHK'D	DATE
C	ISSUED FOR PERMITTING	D.N.	S.H.	2023-12-18
B	ISSUED FOR PERMITTING	D.N.	S.H.	2023-11-30
A	INTERNAL REVIEW	D.N.	S.H.	2023-11-30

HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	D. NESJAN	NR	
DESIGNER	D. NESJAN	NR	
CHECKER	S. HEIKOOP		2023-12-18
RESP. ENG.	S. HEIKOOP		2023-12-18
LEAD ENG.	S. HEIKOOP		2023-12-18
ENG. MANAGER	A. BALE		2023-12-18

DRAWING APPROVAL STATUS: Approved for Use

KINROSS

KINROSS GOLD CORP.
GREAT BEAR AEX DETAILED ENGINEERING

CHUKUNI DISCHARGE PIPELINE
DIFFUSER
PLAN AND SECTIONS

SCALE NTS (ORIGINAL SHEET SIZE: A1)
CLIENT DWG. No. GTEX001-SM011-35710-04-GAD-0001
REV C
HATCH DWG. No. H370860-35710-220-270-0100

Schedule A:
Claims that are the basis of the application to lease of surface rights

N.	TENURE_NUM	TITLE_TYPE	ISSUE_DATE	ANNIVERSARY	TENURES_STATUS	HOLDER
1	173190	Single Cell Mining Claim	2018-04-10	2030-08-23	Active	(100) GREAT BEAR RESOURCES LTD.
2	190510	Single Cell Mining Claim	2018-04-10	2030-08-23	Active	(100) GREAT BEAR RESOURCES LTD.
3	206957	Single Cell Mining Claim	2018-04-10	2030-08-23	Active	(100) GREAT BEAR RESOURCES LTD.
4	345391	Single Cell Mining Claim	2018-04-10	2030-08-23	Active	(100) GREAT BEAR RESOURCES LTD.

Kinross Great Bear / IAAC Touchpoint Meeting

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [TBD]	Hybrid [0]
Location:	Virtual		
Time:	900 AM CT – 930 AM CT		
Date:	March 14, 2025		
Executive Summary:	IAAC opened the first bi-weekly touchpoint meeting, emphasizing key agenda items. Kinross Great Bear requested an extension for the External Review Panel, citing concerns about the appointees' academic background and potential bias. IAAC acknowledged the feedback and confirmed communication with the Policy Branch. Kinross also raised concerns about the Ontario Land Tribunal (OLT) decision framework, emphasizing its broad impact on the industry. IAAC clarified that the External Review Team (ETR) will submit a report during the Impact Assessment comment period, with a draft posted for public and Indigenous review. Kinross flagged ongoing delays in obtaining socio-economic data from ANA, with repeated extension requests. IAAC advised documenting ANA's non-responsiveness per Section 6.2 of the TISGs and considering alternative data sources. Kinross stressed shifting regulatory requirements affecting approvals and timelines, while IAAC reiterated the need for clear communication and structured data collection. Discussions on Valued Components (VCs) focused on alignment in presenting pathway VCs efficiently. IAAC confirmed not all pathway VCs require significance assessments and encouraged a structured approach to documentation. Kinross committed to ongoing engagement to support regulatory clarity. IAAC updated on the Mercury Study Plan and coordination with MECP, discussing sulphate implications. Kinross noted operational challenges with regulatory expectations across Ontario. Both parties agreed to continue discussions. Next steps include ongoing discussions on the Study Plan and Zone of Influence (ZOI) considerations, with bi-weekly meetings ensuring alignment and regulatory compliance. The meeting concluded at 9:30 AM CT. Key Words: Methylmercury, Valued Components		
Key Actions:	a. Great Bear to provide written comment on ETR panel members proposed. b. Great Bear to present Zone of Influence information to IAAC for consideration in support of next meeting.		

1. Attendance

Kinross Great Bear

- Mac Potter

- Aaron MacDonell
- Luke Crosby
- Connor Devereaux

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Christine Greenway
- Ian Lindsay
- Ian Martin
- Dietrich Maahs
- Kiera Smith, Project Analyst

2. Agenda and Attachments

No agenda/materials presented by either party.

3. Minutes
    a. Opening
        i. Virtual call was opened IAAC noted that this is the first bi-weekly touch point, and we have a significant amount to cover today.
    b. External Review Team (ETR) - Methylmercury
        i. IAAC noted request for extension by Kinross Great Bear on External Review Panel. Kinross Great Bear noted request is based on our concern over the professional background, with consideration that current panel appointees identified are academic in nature, our security team is reviewing, and we will provide direction.
        ii. Kinross Great Bear provided overview of decision-making framework of the Ontario Land Tribunal (OLT) and ensuring that IAAC is aware of current standing. Kinross Great Bear notes that the overall faith and outcome was bias in nature, and that decision making framework impacts not only Kinross Great Bear but industry across the Province. It is in this light, that our concern is elevated as many of the individuals proposed are anti-mining in nature, and our comfort level is being challenged. Kinross Great Bear notes the precedence of the Review Panel and direction itself, this is critical as it is a critical path for the Project. This result of the Panel will impact decision making for not only our Project but industry peers.
            1. IAAC does not have comment on the OLT aspect. IAAC received comment on initial roster from both Kinross Great Bear and several others and comment have been communicated to the Policy Branch to ensure that Panel is formed in an appropriate manner. This information will also be communicated.
        iii. Q: Kinross Great Bear asked for clarity on the overall decision-making process of the External Review Team?

1. The External Review Team will provide a written report as part of the comment period under the standardized timing associated with the Impact Assessment review windows. The Agency will take the findings into consideration in its recommendations to the Minister.
    a. Q: Great Bear asked if the report public?
        i. IAAC noted the ETR process is still being finalized at this time. A draft technical review report will be posted on the Registry with all Parties having the ability to provide comment on the Report.
        ii. IAAC is seeking to design the ETR to consider diverse perspectives and seek consensus. ETR following comment period will have the opportunity to take all comments into consideration as part of final report deliverable to the Agency.
        iii. IAAC notes that the process is advancing in tight design structure, once ETR is in place everyone has equitable influence to support the ETR. All participants can be integrated into the process, including posting aspect directly to the register (public, and Indigenous communities).
    b. Kinross Great Bear reiterates that OLT decision has challenged decision making across industrial and resource development across the country and Canada creating additional risk. Kinross notes the decision framework for ETR, and cautionary principal approach is broad in nature.
    c. IAAC has communicated with colleagues across Agency and process, no significant updates received on process and approach to date.
    d. WSP notes the significance of the decision making and precedent of the decision making related to the ETR cannot be minimized.

c. ANA Communication
    i. Great Bear noted recent communication related to collection of socio-economic information, community wellbeing data collection. ANA has not stated no but continues to seek extensions on all items, leading to ongoing delays in capturing information. Great Bear team provided additional information to IAAC and noted lack of response continually from ANA. Kinross Great Bear notes we require clarity on the concordance decision making framework from IAAC. Great Bear can seek direct response from providers, but it is likely to impact relationship with ANA Lands Protection Team.
        1. IAAC ensure that absence of communications or response much be captured. Ensure that record and reasoning for absence are properly communicated in the ROC. IAAC directed Great Bear to Section 6.2 of the TISGs. We encourage Great Bear to provide direction and clear response from ANA.
        2. IAAC notes that Great Bear should seek primary data, with secondary data source and ensuring that records reflect this shift and capture the proponents framing in Impact Assessment. IAAC notes that Great Bear should ensure that understanding of pathways can be reflected but require clear communication to meet needs of Section 6.2, and demonstration of interaction or lack of response.

a. Great Bear notes that we recognize this, and we expect IAAC to honor position and Section 6.2 guidance and framework and context. Kinross Great Bear spoke to direction from the Provincial Crown and continued shift of goalposts impact approvals, and timelines. We have experienced significant challenges but want to ensure IAAC is aware.
b. Q: Great Bear asked if IAAC engages with ANA?
    i. IAAC notes they do consult at appropriate windows, and there is no delegation process for IAAC. IAAC notes ongoing challenge in relationship.
    ii. IAAC will also seek to be prepared and ensure that proponent is aware and can provide key information around effects, and interconnective basis. Ensuring alignment and understanding on this will allow communication and information package to be developed.
    iii. IAAC notes that they will be challenged if information is not in place, this will not support efficient manner.
        1. Great Bear notes that we will do our part and supportive of this.

d. Valued Components and Significance (Pathway VCs)
    i. Kinross Great Bear spoke to meeting with T. Hubbard and IAAC staff. Notes positive direction, and overall timelines associated with Project approval. Great Bear notes importance of alignment and pathway forward.
    ii. SLR noted that SLR is aware of current needs under TISGS, but pathway Valued Components and clarity on approach from IAAC will be critical in supporting an efficient development of the Impact Assessment and review.
        1. IAAC notes that there will be no assessment of significance tied to all pathway VCs.
        2. Great Bear understands this but would like to ensure we present information in an efficient way to determine overall pathway VCs are described/presented.
            a. IAAC notes we internally debate how we best develop this communication. This can be presented comprehensively or directed on key aspects. Provincially there is significant oversight, building a confidence and storytelling, and ensuring that linkages are built in communication approach will support this.
            b. IAAC notes that we can revisit topics, and ensuring that conclusion and needs under the Act, and for IAAC are met. IAAC can communicate this and we can ensure this communication continues to ensure Great Bear has information.
            c. IAAC can provide accelerated decision making assuming key information is both provided quickly and is durable, a key component is ensuring that public and Indigenous input and evidence is clearly communicated.
                i. Great Bear acknowledges approach, notes risk of kicking concerns and framework to Province may be challenged. We will continue to work with them, and IAAC supporting the decision making.

ii. IAAC agrees that all are vulnerable if decision making is isolated and communication doesn't occur across Provincal and Federal bodies.

e. Mercury Study Plan
    i. IAAC noted connection to Mercury Study Plan, and ongoing communication with MECP. IAAC spoke to sulphate aspects.
    ii. Great Bear noted challenges operationally to other operations across the Province.
    iii. Agreed that further dialogue surrounding Study Plan is required, and will be revisited.
f. Next Steps
    i. Further discussions on Study Plan and overall aspects, ZOI and ensuring that these are clearly applied. Great Bear would like to ensure that this presented in a clear fashion.
    ii. IAAC notes meeting will occur bi-weekly in nature.

Meeting closed at 9:30 AM CT.

4. Action Items
    a. Great Bear to provide written comment on ETR panel members proposed.
    b. Great Bear to present Zone of Influence information to IAAC for consideration in support of next meeting.

Dated: March 14, 2025

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

April 10, 2025

Great Bear Resources Ltd.
25 York Street, 17th Floor
Toronto, ON. M5J 2V5

SENT VIA EMAIL: bruno.almeida@kinross.com; Crystal.McCullough@Kinross.com

Dear Bruno Almeida;

NOTICE

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or "Grassy Narrows First Nation" or "Grassy Narrows"), we write to inform you that you hold claims, leases, or other mining tenures within the Grassy Narrows Interim Core Area of Interest for Mining ("Core Area").

Area Subject to Grassy Narrows Interests

We are concerned that you and your associates at your company, Great Bear Resources Ltd. have staked or acquired claims, or tenures derived from them, within the Interim Core Area of Interest for Mining, and on our Territory. We are further concerned that you have made no attempt to contact our First Nation to inform us about your plans and intentions, staking activities, and any early exploration activities that you have carried out, and to hear what we have to say.

We have attached a map of our Core Area at two different scales. Please note that this interim map is not comprehensive and is subject to change.

Grassy Narrows has a longstanding connection to the claimed area dating back to the time of the Treaty and before. Our ancestors have practiced, and we currently continue to practice our Anishinaabe way of life; a way of life that relies on a healthy environment and is central to our identity, health, wellness, and livelihood. This area is part of the whole that forms the sacred landscape which gives us life and which we are in relationship within every aspect of our lives, hearts, spirits, and dreams.

Our community members exercise our Treaty rights in the claimed area through activities such as hunting, travel, camping, fishing, gathering medicines, and teaching their children the Anishinaabe way of life. Our community members boat, canoe, portage, and camp in the vicinity of the claimed area, and in the process, they hunt, fish, gather plants, and drink the water.

Your company's mining claims or tenure also fall within the range of wildlife such as moose, wolverine, and caribou that may travel within our Indigenous Protected and Conserved Area ("IPCA"). In addition, walleye within the area of your mining claims or tenure may also migrate to the IPCA. These are indicator species for a wide range of terrestrial and water-based creatures

that we use which spend part of their lives within the claimed area and would be impacted by mining activities. Birds that we use would also spend part of their lives within the claimed area.

We are on a healing journey, trying to recover from the extreme damage that colonization and attempted forced assimilation have done to our people, including through the imposition of Crown policy and regulatory schemes related to residential schools, dams, relocation, mercury contamination, child apprehension, industrial logging, and mining. Our environment, culture, society, economy, and health have been harmed. We need to allow the land to heal because healthy land will help to heal our people. This is what reconciliation means to Grassy Narrows. We have called on Ontario and on companies to stop pushing mining activity and industrial logging on us. We call on you and your associates at your company to let us protect our land so that we can heal our people.

We strongly urge you to reconsider your plans in our Core Area and to seize this opportunity to set a course for a future that is free of conflict over mining.

Area Subject to Cumulative Effects

For many generations the Crown has imposed harmful law and policy on us, including through the Indian Act, the banning of our ceremonies, residential schools, relocation, the 60s scoop, and the ongoing removal of our children from our community. These policies have caused grave harm to our people and impaired the exercise of our rights. They have undermined our strong society and way of life and have left us more vulnerable to the impacts of industry.

At the same time, Grassy Narrows people and our Territory have been subjected to a long series of industrial attacks which have been imposed on us against our will. These include the damming of our river, mercury pollution, industrial logging, and mining activity. Each of these industrial attacks have had grave impacts on their own which have been well documented. In addition, each of these industrial attacks has compounded the existing harm that remains from previous attacks, creating unbearable cumulative impacts, thereby prolonging and exacerbating our inter-generational crisis.

These extreme and compounding industrial impacts have been carried out by industry, and allowed by the Crown, without any serious consideration of their cumulative effects on Grassy Narrows and the exercise of Grassy Narrows' rights. We have raised clear concerns, since the 1970s at least, that our environment, rights, way of life, and our health were at or beyond the breaking point due to the impacts of industry on the resources on which we have heavily relied for our wellbeing, livelihood, and the viability of our community. We have repeatedly requested environmental assessments. To this day, with respect to our Territory, industry and the Crown have failed to conduct a collaborative Land use Plan; failed to complete a source water protection plan; failed to carry out an environmental assessment; and failed to undertake an assessment of cumulative effects.

Our river that gives us life remains poisoned.

Our walleye are unsafe to eat.

Our sturgeon are rare.

Our moose are scarce.

Our caribou are nearly extirpated.

Our pine marten habitat is depleted.

Our medicines are tainted.

Our sacred landscape is desecrated and scarred.

Our way of life is diminished.

Our people suffer from poverty, food insecurity, disease, and premature death.

Our Treaty rights are impaired, our health has been harmed, and we have been discriminated against.

The crisis that was created by mercury, damming, and relocation, and which has been exacerbated by industrial logging and mining activity, continues.

And yet your company has staked or acquired mining claims or tenure on our Territory. This risks taking us farther past the point of “reasonable,” “justifiable” impacts on Grassy Narrows’ rights, health, and way of life.

We are long past the time when the industry and the Crown should have listened to Grassy Narrows when we said enough is enough. We are decades past the time when industry and the Crown should have realized that the harm to Grassy Narrows was too much, and the Treaty promises were being dishonourably compromised by imposed industry allowed by the Crown. The Crown and industry can no longer impose further impacts on our land and our people when the cumulative impacts from past development mean that any further imposed industry will unjustifiably infringe our Treaty rights, harm our health, and discriminate against us.

We ask your company to open your heart and to respect Grassy Narrows.

Area Subject to Treaty Land Entitlement Claim

We would like to ensure that you are aware that Grassy Narrows has an active Treaty Land Entitlement (“TLE”) claim that has been accepted by the Crown and is under negotiation for resolution. Part of the resolution of the claim will include an addition to Grassy Narrows' reserve lands, and compensation for lost use. Grassy Narrows is currently engaged in a process to select its additional reserve lands. All of Grassy Narrows Territory is currently potential reserve lands additions under consideration.

The Crown has asserted that lands which have encumbrances, such as mining claims, will be more challenging to designate as additional reserve lands. This means that your mining claims and tenures adversely impact our ability to select reserve land additions and are an impediment to the successful resolution of our TLE claim.

Further, lands which have been impacted by mining exploration such as cutting lines, pitting, trenching, stripping, and drilling, decline in ecological health, experience a degradation of their intactness, and therefore become less suitable as additional reserve lands. Over the last few decades, vast parts of our Territory have been encumbered and degraded through industrial actions imposed on Grassy Narrows. This has severely restricted the available suitable

additional reserve lands.

Grassy Narrows has been clear that there should be no new encumbrances on our Territory, and no new degradation to our Territory, as this would unfairly further reduce the available suitable additional reserve lands (in addition to other impacts outlined elsewhere). This would impair the ability to correct the injustice that was done to us by having been denied a fairly sized reserve for over a century.

Area Subject to Litigation

Grassy Narrows has commenced two legal proceedings addressing Crown failures that have the potential to impact your company's mining interests in Grassy Narrows' Core Area.

First, on June 4, 2024, Grassy Narrows served Ontario and Canada with notice of our intention to sue for breach of Treaty obligations, fiduciary duties, and obligations arising from the Honour of the Crown by failing to protect Grassy Narrows Treaty rights, including from:

- The effects of mercury and other pollutants discharged by the pulp and paper mill in Dryden, Ontario, into the English and Wabigoon River System; and

- The cumulative impacts of industry and land use including mining activity.

Paragraph 95 of the Statement of Claim addresses the issue of the Crown's continued authorization of industrial activities that increase the mercury load, net methylation, bioavailability and biomagnification in the ecosystem.

Paragraph 102 outlines the cumulative impacts of industry and land use that have interfered with Grassy Narrows' Treaty rights, including contaminating air, land and water in and around the Area, degrading the land important to hunting, trapping, fishing and gathering, impacting wildlife habitat and populations, and interfering with the spiritual and cultural integrity of the Area and Grassy Narrows' relationship to it, among other things. Paragraph 103 addresses the harms caused by these cumulative impacts of industry and land use.

Your mining claims and other tenures continue the unlawful and harmful Crown conduct that is the subject of the lawsuit.

Secondly, on July 12, 2024, Grassy Narrows served a Notice of Application on Ontario asserting that the Mining Act regime violates section 35 of the *Constitution Act, 1982* by failing to consult, accommodate or obtain consent prior to registering mining claims within the Interim Core Area of Interest for Mining.

Grassy Narrows is seeking a declaration that mining claims registered pursuant to this unconstitutional regime and further mining tenures derived from those leases are invalid, which would include any claims, leases, and patents registered by your company in the Area. Ontario did not consult, accommodate nor obtain consent from Grassy Narrows prior to registering your company's mining claims, and the leases, patents and other mining tenures derived from them.

As relief, Grassy Narrows is seeking a declaration that "existing mining claims, including mining activities such assessment work and exploration activities, and third-party mining interests granted under the Mining Claim Grant Regime within the Area are not consistent with section 35 of the *Constitution Act, 1982* and UNDRIP and are of no force or effect."

If Grassy Narrows is successful in either or both of these legal proceedings, your company's mining claims and other tenures would potentially be impacted and could be invalidated.

Area Subject to Unmet Legal Duties

In 1978, Ontario and Canada signed a Memorandum of Understanding ("1978 MOU") with Grassy Narrows in which the Crown committed to resolve in good faith the impacts of mercury on the environment that Grassy Narrows people heavily relied upon for the viability of our community, and the related health, social, economic, cultural, and environmental impacts on the people of Grassy Narrows. It was agreed that the issues would be resolved through a combination of financial compensation and land, or control over land, and furthermore in a manner that would enhance Grassy Narrows' self-determination, self-sufficiency, and control over local affairs wherever possible.

Although some agreements were reached, there remain outstanding obligations on the Crown, including with respect to increasing Grassy Narrows control and self-determination over Grassy Narrows lands. From the outset of our discussions under the 1978 MOU, Grassy Narrows was clear that in order to recover from the impacts of mercury and other harms, we need Crown recognition of Grassy Narrows' ownership, control, and protection of our Territory which will allow Grassy Narrows to make decisions with respect to our Territory that support our way of life and our livelihood. In the 1970s, 1980s, and 1990s Ontario committed to negotiate increased Grassy Narrows control over our lands, in addition to providing meaningful compensation for our people. However, those negotiations and obligations remain unresolved.

The Crown and Grassy Narrows have a fiduciary relationship, and our Treaty rights attract fiduciary obligations. When the Crown seized functional management and control of our lands and water, including through use of force, in the time since the Crown and Grassy Narrows entered into a Treaty relationship, the Crown assumed a duty to Grassy Narrows when exercising that imposed control over our Indigenous interests including our pre-existing legal interests in exercising our fishing, hunting and trapping rights and other traditional practices, including our medicine gathering and wild-rice picking. Grassy Narrows has been at the mercy of the exercise of Ontario's imposed fiduciary decision-making over our Territory as Ontario unilaterally authorized industrial activity, and otherwise has made decisions that affect the land, water and other natural resources of our Territory which we rely on to exercise our rights, practice our way of life, and maintain our health.

Under imposed Crown management and discretionary control, the health of our Territory and our people have seriously declined, our way of life has been degraded, and the exercise of our Treaty rights has been impaired.

In the 1980s, and since, we called for a moratorium on industrial activity in our Territory until our negotiations with Ontario were concluded.

However, rather than honour this moratorium, the Treaty promises, and the 1978 MOU obligations, Ontario abandoned the negotiations in the mid-1990s and exercised its imposed control in a way that unleashed industry on our Territory to our detriment.

The Crown's dishonourable conduct and abandonment of its fiduciary obligations continue. And now instead of helping to set us on a path back to health, prosperity, and wellness, as promised, the Ministry has granted thousands of mining claims and approved numerous exploration

permits on our Territory. This conduct will compound the harms imposed on our people by further compromising our health and degrading our Territory and impairing and unreasonably limiting the exercise of our rights.

The failure of the Crown to uphold its honour and its fiduciary duty to us has the potential to impact the legitimacy of your claims and your ability to carry out mining exploration activity on them.

Grassy Narrows calls on your company to respect Grassy Narrows' law and rights

We call on Great Bear Resources Ltd. to respect Grassy Narrows' law and our inherent, Aboriginal, and Treaty rights, and to commit to comply with Grassy Narrows' rights and laws.

We call on your company to halt all staking and mineral exploration and mining related activities within the Interim Core Area of Interest for Mining and to confirm this halt in writing with us.

We call on your company to commit to gain our free, prior and informed consent before staking any claims, applying for any tenures, and carrying out any activities within the Interim Core Area of Interest for Mining.

We further call on your company to engage with us, and to gain our free, prior, and informed consent, for activities that are outside of our Core Area, but which may have upstream or downstream, downwind, migratory, or other off-site impacts on our Core Area and our people.

Request to meet to identify and resolve any conflicting third-party interests

If you insist on continuing to hold interests in and operate these claims or other mining tenures in our Core Area of Interest for Mining and that may impact our IPCA, despite the information shared with you in this correspondence – that such activity would be in violation of our ANA law, and our rights and interests and in an area with excessive existing cumulative impacts, that conflicts with our TLE process, and is subject to litigation – then we raise the following additional considerations which form a barrier to us meaningfully understanding your interest in our Core Area and engaging with you about these claims:

1) **Insufficient information:** You have yet to provide ANA with any information related to your past and planned activities with these claims. We have enclosed a list of questions at Appendix A for your company to complete with respect to your activities in our Core Area. Please provide detailed responses to allow ANA to better understand your activities and to prepare to evaluate them.

2) **Capacity funding:** The process of evaluating your activities and engaging with your company comes at an expense to ANA. We must hire staff, engage our community, and obtain professional support from experts, lawyers, and advisors to engage with you in a meaningful way. Our First Nation is even more impoverished than our First Nation peers due to the ongoing impacts of mercury poisoning. We lack the funds required to engage in an informed way. Please commit to funding ANA's reasonable costs of engaging with your company.

3) **Mercury Crisis:** Our territory has already experienced a great deal of harm from industrial activities including mercury, damming, and industrial logging. The cumulative effects of these industrial impacts have already passed the point of an unreasonable,

unjustifiable impact on the exercise of our Treaty rights, and on our health and wellbeing. As a result, our community suffers from unusually high rates of conditions including poverty, food insecurity, disease, neurological conditions, conditions affecting learning, and premature death. We cannot tolerate any further imposed impacts to our environment, our rights, our health, and our wellbeing. As well, the social conditions created by mercury poisoning and the cumulative impacts of industry place us in an ongoing crisis which make us unable to meaningfully engage on mining exploration. We require that the Crown resolve our ongoing crisis caused by mercury contamination and cumulative impacts before we can meaningfully engage about mining.

4) **Fundamental matters must be addressed:** For decades Grassy Narrows has been raising important matters with the Crown including mercury justice, self-determination, unmet obligations, Treaty rights, cumulative impacts, withdrawals, free entry, land use designations, and land protection. Grassy Narrows has invited Ontario to a table to find honourable resolutions to these matters. For years, Ontario has refused to even come to the table. Ontario continues to refuse to come to the table on the fundamental issues that require negotiation. The issues with these many mining claims and other tenures flow from larger upstream strategic issues which continue to fester because Ontario refuses to engage on them, but rather seeks to impose their unilateral will on Grassy Narrows. As the decades pass, it is Grassy Narrows people and our environment who suffer as a result. Ontario must deal honourably with Grassy Narrows by resolving in good faith these long-standing matters.

Grassy Narrows requests that you and your associates at your company meet with the Grassy Narrows Lands Protection Team, once the above barriers have been addressed, to identify and discuss any third-party interests you and your associates at your company may have in the Interim Core Area of Interest for Mining that conflict with Grassy Narrows' rights and interests.

In preparation for a meeting and to ensure it is constructive amongst the parties, Grassy Narrows requests that you and your associates at your company respond to this letter in writing to:

- Confirm your company's attendance at the corporate stakeholder meeting;
- Specify your company's representatives, and their positions, who will attend the meeting;
- Commit to respect the ANA Law and confirm your agreement not to pursue any mining-related activities within the Interim Core Area of Interest for Mining without ANA's free, prior, and informed consent;
- Commit that your company will work with Grassy Narrows in good faith to resolve any potentially conflicting third-party interests in the Interim Core Area of Interest for Mining;
- Specify with particulars any third-party interests you believe exist in the area proposed as the Interim Core Area of Interest for Mining with relation to your company's staked claims or tenures and any concerns which may need to be resolved, and your suggested resolution; and
- Respond to the questions that are listed in Appendix A.

Please respond within 90 days and address all correspondence to Joseph Fobister, Lead Negotiator for the Grassy Narrows Lands Protection Team. While copying ANA's Lands Protection Team, Mike Fobister, David Sone, Jackie Esmonde, Sydney Lang, Dan Mossip-Balkwill, and Annelies Cooper.

We look forward to meeting with you and your associates at your company.

Awsa,

Asubpeeschoseewagong Anishinabek (Grassy Narrows First Nation)

Joseph Fobister, Lead Negotiator for the Grassy Narrows Lands Protection Team.

Cc:

ANA Lands Protection Team
Joseph Fobister, Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Lands Team Supervisor (mike.fobister@googlemail.com)
David Sone, ANA Advisor (david.sone@gmail.com)
Jackie Esmonde, ANA Legal Counsel (jesmonde@cavalluzzo.com)
Sydney Lang, ANA Legal Counsel (slang@cavalluzzo.com)
Dan Mossip-Balkwill, ANA Advisor (dan.mossip.balkwill@gmail.com)
Annelies Cooper, ANA Advisor (annelies.cooper@gmail.com)

MINES
Susanna Laaksonen-Craig, Deputy Minister (deputy.mines@ontario.ca)
Stephen A. Miller, Mineral Exploration & Development Consultant (stephen.a.miller@ontario.ca)
Patrick Barnes, Consultation and Aboriginal Treaty Rights Advisor (patrick.m.barnes@ontario.ca)
Neal Bennett, Acting Regional Manager, Thunder Bay Office (neal.bennett@ontario.ca)
Teri McDonald, Director, Indigenous Consultation & Partnerships Branch (teri.mcdonald@ontario.ca)
Trina Rawn, Director, Mineral Development Branch (Trina.Rawn@ontario.ca)

MNRF
Drew Vanderduim, Deputy Minister (deputy.mnrf@ontario.ca)
Brian Kilgour, District Manager, Kenora (brian.kilgour@ontario.ca)
Krista Prosser, Resource Liaison Specialist, Kenora (krista.prosser@ontario.ca)
Myles Perchuk, District Manager, Red Lake (myles.perchuk@ontario.ca)
Alissa Van Wynen, District Resource Liaison Specialist, Red Lake (alissa.vanwynen@ontario.ca)

MECP
Serge Imbrogno, Deputy Minister (serge.imbrogno@ontario.ca)
Lisa Trevisan, Assistant Deputy Minister (lisa.trevisan@ontario.ca)
Ann Darby, Senior Program Support Coordinator, Permissions and Program Services Unit

(ann.darby@ontario.ca)

IAO
Shawn Batise, Deputy Minister (shawn.batise@ontario.ca)
Michael Reid, Assistant Deputy Minister (michael.reid@ontario.ca)
Candice Telfer, Acting Assistant Deputy Minister (candice.telfer@ontario.ca)

APPENDIX A

INFORMATION REQUESTS

ANA has become aware that you and your associates at your company hold claims or other mining tenures and may be planning to carry out staking, exploration or mining related work in our area ("mining related activity"). Please provide the following information and answer the following questions in detail in order to allow ANA to understand and assess your activities.

1. Detail when and how your company, and any predecessors on these claims or tenures, have contacted Grassy Narrows and/or MINES with regards to any claim staking and exploration or mining related activity within our Interim Core Area and provide copies of all correspondence to date. Please also provide copies of any previous correspondence between your company, and its predecessors, and Grassy Narrows.

2. Please provide copies of any correspondence between your company and MINES about these claims or mining tenures.

3. Did MINES inform your company that these claims were on Grassy Narrows Territory and within the Grassy Narrows Interim Core Area?

4. Did MINES inform your company that Grassy Narrows has rights and interests in this Area and is concerned about claim staking, mining exploration, and mining activity in this Area?

5. If your claims or tenures were previously held by anybody else, please detail your and your company's relationship with any individuals or companies who previously owned these claims.

6. Do you or your company have an exploration plan or other mining related plans for these claims or tenures, and if so, please provide a copy.

7. Have you or your company or any predecessors, carried out any early exploration activity which does not require notice to MINES or MNRF? If so, please provide detailed information about this work?

8. Does your company have any existing plans, or plans under development, for mining related activity of any kind in, or near, our Interim Core Area, or which could impact the Interim Core Area? If so, please provide complete details. If not, will you commit to sharing with us any such plans, the moment they come under development, should such an instance arise?

9. Specify which mineral resource(s) is/are being explored or developed.

10. Specify the size of the workforce carrying out mining related activities. Provide small/medium scale maps (aerial photography or satellite imagery if possible) of the locality/region that is the subject of the claim staking and any planned mining related activity.

11. Provide a more detailed large-scale map showing location (at high resolution) identifying

where specific mineral exploration activity is to occur. This would identify which mineral claim and where within the mineral claim the planned worksite will be, or has been, and any relevant geographic features. Buffers should be built around the worksite locations to reflect post-permitting 'adjustment' of actual drill hole or access route.

12. Provide any surface geology or other thematic mapping that might suggest landforms important for wildlife distribution, Traditional Land Use, etc. (i.e. eskers, end moraines, outwash channels, glacial lake beds, rivers, lakes, streams, wetlands, portages, etc.).

13. Specify location and provide a detailed summary of any prior mining related activity in the proposed program area, including prior staking, permits and leases, and maps showing their locations.

14. If remediation from past activities is required, how will you remediate the site(s)? If remediation from past activities is not required, please provide documentation supporting this.

15. What is the nature of the proposed activity (e.g. early-stage prospecting, magnetic surveys, geotech auger sampling, shovel testing, diamond drilling, reciprocal drilling with water, bulk sampling, blasting of bedrock, trenching, etc.)? What is the anticipated physical impact of the activity? When will the activity take place? Where will the specific activity take place?

16. Detail the planned access to the proposed program and its location in relation to trails and winter roads in the area. Have or will any new access routes such as trails be created? What alternative access options have been identified, how were they assessed and why was the preferred option chosen?

17. How and when will the worksite be accessed? (e.g. chopper access, winter road logistics, walking rigs on trails prepared by bulldozer, etc.)

18. Has or will a camp site be constructed? Where? Please detail relevant logistics regarding the base camp and waste disposal.

19. Have or will camp materials be removed after the work? In detail, how will garbage, brush, sewage and overburden be dealt with? What kinds of fuel will be used, and how and where will the fuel be stored? How will the fuel be transferred, and what is the contingency plan in the event of a spill? Following the mining related activity, how will the site be cleaned up, reclaimed, or remediated?

20. Please detail the fuel dump management plan. Where are dumps to be located and what are the protocols for removal of barrels or containing spills? Detail whether stream crossings or travel close to lake shores will occur? In addition, detail overlay of proposed activity with hydrological features to understand proximity to lakes, wetlands, and river systems and identify which fish species use those water bodies, and whether any spawning areas or other special habitat areas exist in the area.

21. Detail strategies for protection from spills, ground disturbance, and enhanced erosion from preparing approaches.

22. Will the past or future work, including access, disturb soils in such a way that will

increase the release of mercury from those soils, or increase the net methylation of mercury within those soils? What assessment has been done and what evidence supports your position? What monitoring will be done to confirm this?

23. Specify the nature of site preparation for drilling or other activities (i.e. drill dropped in by chopper onto a log pad, or drill pad cleared and levelled by bulldozer).

24. Provide an overlay of the proposed activity with range maps of moose, wolverine, and caribou.

25. Provide an overlay of proposed activity with land classification details, with a special focus on the sub-range habitat features for moose, wolverine, and caribou (e.g. wintering areas, nursery areas and travel corridors, calving areas, denning areas).

26. Detail the source of all water to be used in the exploration program and their geographic locations. If drilling requires water, where will the water be drawn from; how will it be transported (pump and hose through bush, or hauled in water tanker behind vehicle and drawn along prepared trails); how much will be used, and how will waste water be disposed of?

27. Will the past or future work disturb waterways in such a way that will increase the release of mercury from those waterways, or increase the net methylation of mercury within those waterways or other impacts? What assessment has been done and what evidence supports your position? What monitoring will be done to confirm this?

28. Will any drilling fluids be used? If so, which? What are the procedures that will be used to ensure their safety including storage, use, recovery, removal, and spills?

29. Will any toxic substances be used in the work on present on site? If so, which? What are the procedures that will be used to ensure their safety including storage, use, recovery, removal, and spills?

30. What other authorizations (e.g. fisheries, permit to take water, other permits) are required for this project?

31. How will the mining-related activities change the water, air or land? What impacts will each of these changes have on land, water, fish, and wildlife?

32. Have or will your mining-related activities create any off-site impacts that will impact the Interim Core Area such as downstream or downwind impacts, impacts to migratory wildlife and fish, edge effects, etc.?

33. What will the cumulative impacts of your current and planned activities be and how does this contribute to the overall cumulative impacts of industry on Grassy Narrows Interim Core Area?

34. What First Nations Territories are included in the area of your mining-related activities?

35. What communication have you or your company had with MINES about Aboriginal and Treaty rights in relation to your mining-related? Please provide copies.

36. Has MINES delegated to you or your company any of the procedural (or other) aspects of the Crown's legal duty under Canadian law for consultation and meaningful accommodation with First Nations? If so, which? Please provide all relevant documentation.

37. What is your company's opinion on what ANA's inherent, Aboriginal and Treaty rights are on the area of your mining-related activities?

38. What is your company's opinion on what your responsibilities are with respect to ANA's inherent, Aboriginal, and Treaty rights in the area of your mining-related activities?

39. Does your company commit to abiding by the United Nations Declaration on the Rights of Indigenous Peoples?

40. Does your company commit to not carry out staking, mining exploration, and other mining related activities in the Interim Core Area of Interest for Mining unless ANA has given its free, prior, and informed consent?

41. Will your company fund ANA's reasonable costs of engaging with your company including the costs of ANA staff, community engagement, experts, legal counsel, and advisors?

42. Will your company fund ANA to commission an independent archaeological assessment of your activity areas including drill sites, access routes, camps, waste sites, etc.?

43. Does your company have a policy and an enforcement plan to prevent gender-based violence by your employees and contractors?

44. What is the total area (in ha) of your company's combined claims and leases in the Interim Core Area?

45. What is the total dollar value of the work that you and/or your company has, or any predecessors have, done on claims and leases in the Interim Core Area to date?

46. What is your and/or your company's appraisal of the market value of your combined claims and leases in the Interim Core Area?

47. Does your company commit to respecting the ANA Land Declaration and other ANA laws?

48. Do you and/or your company believe that you have any interests in the Interim Core Area? Please specify.

49. Do you and/or your company believe that any of your asserted interests may conflict with the Interim Core Area? Please specify how and provide reasons. Please also outline your company's proposed resolution.

50. Do you or your company have any other concerns which may need to be resolved with ANA? Please outline your suggested resolutions in detail.

51. Do you and/or your company commit to working with ANA in good faith to resolve any

potentially conflicting interests which you and/or your company believes you have in the Interim Core Area?

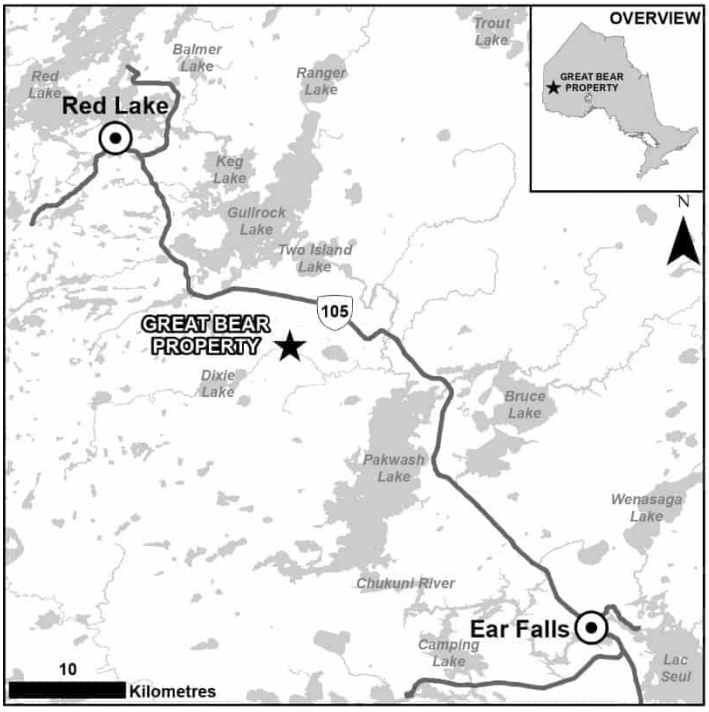
52. Will you and/or your company write a letter expressing support for ANA's Interim Core Area?

Notice of Commencement of Screenings

Great Bear Temporary Generators and Transmission Station

The Study

This Notice of Commencement is provided to inform the public, Indigenous communities and interested parties that **Great Bear Resources Ltd.**, a wholly owned subsidiary of Kinross Gold Corporation, is beginning environmental studies to assess the potential environmental effects associated with between 1 megawatts and 5 megawatts of diesel-fired generation (**Temporary Generators**) and a 115 kilovolt (kV) **Transmission Station** on the Great Bear Property.



Background

The Great Bear Property is located approximately 25 kilometres southeast of Red Lake in northwestern Ontario. The **Temporary Generators** will provide temporary power on the Property, to be replaced with a more favourable power supply option once it can be established. The proposed **Transmission Station** is required to connect to Property to the existing Hydro One Networks Inc. 115 kV transmission network and provide a longer term power source for the Property.

The Process

The **Temporary Generators** and **Transmission Station** studies will be carried out in accordance with the Ministry of the Environment, Conservation and Parks Environmental Screening Process for Category B Projects set out in Ontario Regulation 116/01 (the *Electricity Projects Regulations*) under the Ontario *Environmental Assessment Act*. The **Transmission Station** study will also follow the Class Environmental Assessment for Transmission Facilities under the Ontario *Environmental Assessment Act*.

On completion of the studies, the Environmental Screening Reports will be completed and made available for a 30-day public review period. Notice(s) of Completion of Screening Report will advise interested parties of the locations where the reports can be reviewed.

Comments

Members of the public, Indigenous communities and other interested persons are encouraged to actively participate in the planning process. Notice of all upcoming consultation events will be advertised in local papers and radio. Alternatively, all members of the public, Indigenous communities and other interested persons seeking to review
supporting materials for the application can speak to Great Bear staff directly at 104 Howey Street, Red Lake, Ontario.

Please direct any inquiries, comments or requests regarding the **Temporary Generators** or **Transmission Station** to:

Aaron MacDonell, Director, Environmental Services
Great Bear Resources
25 York Street, Suite 15th Floor
Toronto Ontario M5J 2V5
M: 807-631-6769
Email: greatbearinfo@kinross.com

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment, Conservation and Parks for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s.37 of the Freedom of Information and Protection of Privacy Act. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at 416-314-4075.

The Corporation of the Municipality of Red Lake

MINUTES OF A MEETING OF THE COMMUNITY HEALTH CARE COMMITTEE HELD IN COUNCIL CHAMBERS ON 16 APRIL 2025 @ 12:00 P.M.

Present:	Dave McLeod	Chair
	Angela Bishop	Member (Hospital)
	Gwyneth Carlson	Member (Kinross)
	Janet Hager	Member (Councillor)
	Michelle Hendry	Member (CAO)
	Fred Mota	Member (Mayor)
	Jamie Saulnier	Member (Evolution)
	Georgie Schuurman	Member (Clinic)
	Derek Teevan	Member (West Red Lake) (*electronic participation)*
	Pat Delf	Executive Lead, Kiiwetinoong Healing Waters Ontario Health Team
Staff:	Trilbee Stirling-Kattler	Treasurer (*electronic participation)*
	Christine Goulet	Recording Secretary
Regrets:	Maria Forsythe	Member

1. CALL TO ORDER

The meeting was called to order at 12:00 p.m.

1.1 Land Acknowledgement Statement.

We, the Municipality of Red Lake acknowledge that our foundation and the spaces in which we live and maintain are on the lands of the Anishinaapek of Red Lake; the traditional lands of Lac Seul and Wabauskang First Nations, and Treaty 3 territory. As we are all Treaty people, we will continue to cherish the reciprocity of all the relationships on these sacred Lands and Waters.

2. DECLARATION AND CONFLICT OF INTEREST

None at this time.

3. MINUTES OF PREVIOUS MEETINGS

3.1 February 12, 2025.

It was:
Moved by A. Bishop
Seconded by G. Schuurman
(CHCC-03-25)
RESOLVED that the Community Health Care Committee hereby approves the Minutes of a Community Health Care Committee Meeting held February 12, 2025.

CARRIED

4. CORRESPONDENCE

None at this time.

5. OLD BUSINESS

5.1 Draft Protocol in respect of the sale of Physician Lots – for future consideration/discussion.

The CAO will bring forward a draft protocol at a future CCHC meeting for the Committee's review.

5.2 Draft Protocol in respect of managing the Evolution homes provided for Physician recruitment.

The CAO will bring forward a draft protocol at a future CCHC meeting for the Committee's review.

The Committee recognized the importance of the Municipality maintaining all communications/negotiations with Evolution, as Leasee of 3 and 6 Goodwillie Drive.

J. Saulnier proposed a long-term lease for 6 Goodwillie Drive, formerly held by a short-term lease, which has since expired.

6. NEW BUSINESS

6.1 Recruitment Update – Dave McLeod.

G. Schuurman provided an update on locum and resident doctor recruitment efforts.

G. Schuurman is to contact Evolution officials regarding potential mine tours for doctor recruitment.

J. Saulnier is to share information with the Committee regarding Red Lake being named as an economic zone.

6.2 Housing Update.

This item was discussed previously under Item 5.2.

6.3 Financial Update (2024 expenditures and 2025 expenditures to date) – Treasurer, Trilbee Stirling-Kattler.

For information.

6.4 Community Health Care Committee Terms of Reference – Five-year review and update – CAO Michelle Hendry.

The CAO reported a draft updated Terms of Reference will be forthcoming at a future Committee meeting for review and consideration.

6.5 Establishment of a regular CCHC meeting schedule.

The Committee concurred to meet every two (2) months moving forward.

Industry members requested the development of a long-term strategy (with pillars/leads/priority strategies/timelines) to identify/mitigate gaps relating to physician/health care recruitment and retention (ie housing and medical equipment gaps) to assist industry with supporting community health care needs.

A. Bishop, G. Schuurman, D. McLeod, M. Hendry and J. Saulnier will work together to develop the initial framework for the Committee's review. B. Gignac will contact members to initiate the process.

7. MOTIONS *(to be brought forward after applicable item)*

None at this time.

8. NEXT MEETING

To be determined.

9. ADJOURNMENT

It was:
Moved by J. Saulnier
Seconded by G. Schuurman
(CHCC-04-25)
RESOLVED THAT the Community Health Care Committee hereby adjourns from a meeting held April 16th, 2025 at 1:24 p.m.

CARRIED

CERTIFIED CORRECT:

Dave McLeod, Chair

Brenda Gignac, Recording Secretary

noma
Northwestern Ontario
Municipal Association

Representing the Districts of Kenora, Rainy River and Thunder Bay
P.O. Box 10308, Thunder Bay, ON P7B 6T8
www.noma.on.ca
p. 807.683.6662 e. admin@noma.on.ca

Hon. Stephen Lecce
Minister of Energy and Mines
77 Grenville Street
Toronto, Ontario M7A 2C1
MinisterEnergy@ontario.ca

May 1, 2025

RE: The Case for Municipal Approvals of Proximity Energy Development

Dear Minister Lecce,

Thank you for attending the Minister's Forum at the Northwestern Ontario Municipal Association Conference and AGM on April 23, 2025. Your responses to the questions put to you were well received.

One of the questions related to the issue of energy generation proponents considering an application to the IESO for a facility located outside of the municipal boundaries and a request that they had to seek municipal approval before submitting their application. In your response you said you would think about the concept but requested additional information to assist you and your Ministry in making a decision on this concept.

The Canadian Nuclear Waste Management Organization (NWMO) has established community consent as a condition of moving forward with the development of a deep geological storage facility. The town of Ignace and the Wabigoon Lake Ojibway Nation are the two communities considering issuing their consent. None of the sites examined by the NWMO are within the legal boundaries of the Municipality of Ignace.

This precedence of community support for a project well outside the jurisdiction of the municipality should be a standard for the development of any electrical generation or transmission in areas adjacent to a municipality.

As communities along the East West Tie bulk transmission line have experienced, the development of new infrastructure outside of the municipal boundaries has a profound effect on the nearby town or city. Much of this experience is of a positive nature but requires significant planning on the part of the municipality. These communities become the supply point for construction related accommodation, provision of meals, parts and labour. On the negative side, there is a disruption in available accommodation for the travelling public, a mainstay of many of the northern communities. There are also social

disruptions, particularly if there is a bunk house camp constructed close by, with construction workers seeking entertainment and companionship within the urban area. Policing, EMS and fire &medical services are impacted as well.

Communities in the North do more than support the residents who live within the municipal boundaries. Adjacent to every community in the Northwest are scattered settlements, sometimes in groups while others are solitary residences. They can be immediately outside of the boundaries or many kilometres away. In every case, however, these residents of townships without municipal organization (TWOMO) or even crown land rely on the adjacent municipality for a number of services: schools, health care, banking, libraries, recreation (particularly hockey). That municipality is also tends to be the location for the highway maintenance service that keeps their roads open in the northern winter.

The TWOMO residents also look to the Municipality for leadership on a number of fronts.

All of the above is to recognize that municipalities need to have a say in the development of any major transmission or generation projects that are being proposed within the normal service area of the community so that an informed decision can be made on the appropriateness of the project going forward.

This approach would not increase the current requirement for municipal support but only ensure that the municipality is seized with the opportunity to indicate their support or non-support of an energy proposal. It does provide the municipality with the ability to seek assistance from the proponent should cost increases of municipal operations are triggered by the development.

Minister, we strongly believe that for the next iteration of the selection process for new generation and transmission that a proximity element be introduced into the municipal approval process.

Yours truly

Rick Dumas
Mayor, Town of Marathon
President, Northwestern Ontario Municipal Association (NOMA)

Representing the Districts of Kenora, Rainy River and Thunder Bay
P.O. Box 10308, Thunder Bay, ON P7B 6T8
www.noma.on.ca
p. 807.683.6662 e. admin@noma.on.ca

Copy to:
Hon Kevin Holland, MPP Thunder Bay-Atikokan
Hon Greg Rickford, MPP Kenora-Rainy River
Lise Vaugeois, MPP, Thunder Bay Superior North
Sol Mamakwa, MPP Kiiwetinoong
NOMA Board of Directors
NOMA Member Municipalities
NW Energy Task Force

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

April 10, 2025

Great Bear Resources Ltd.
25 York Street, 17th Floor
Toronto, ON. M5J 2V5

SENT VIA EMAIL: bruno.almeida@kinross.com; Crystal.McCullough@Kinross.com

Dear Bruno Almeida;

NOTICE

On behalf of Asubpeeschoseewagong Anishinabek ("ANA" or "Grassy Narrows First Nation" or "Grassy Narrows"), we write to inform you that you hold claims, leases, or other mining tenures within the Grassy Narrows Interim Core Area of Interest for Mining ("Core Area").

Area Subject to Grassy Narrows Interests

We are concerned that you and your associates at your company, Great Bear Resources Ltd. have staked or acquired claims, or tenures derived from them, within the Interim Core Area of Interest for Mining, and on our Territory. We are further concerned that you have made no attempt to contact our First Nation to inform us about your plans and intentions, staking activities, and any early exploration activities that you have carried out, and to hear what we have to say.

We have attached a map of our Core Area at two different scales. Please note that this interim map is not comprehensive and is subject to change.

Grassy Narrows has a longstanding connection to the claimed area dating back to the time of the Treaty and before. Our ancestors have practiced, and we currently continue to practice our Anishinaabe way of life; a way of life that relies on a healthy environment and is central to our identity, health, wellness, and livelihood. This area is part of the whole that forms the sacred landscape which gives us life and which we are in relationship within every aspect of our lives, hearts, spirits, and dreams.

Our community members exercise our Treaty rights in the claimed area through activities such as hunting, travel, camping, fishing, gathering medicines, and teaching their children the Anishinaabe way of life. Our community members boat, canoe, portage, and camp in the vicinity of the claimed area, and in the process, they hunt, fish, gather plants, and drink the water.

Your company's mining claims or tenure also fall within the range of wildlife such as moose, wolverine, and caribou that may travel within our Indigenous Protected and Conserved Area ("IPCA"). In addition, walleye within the area of your mining claims or tenure may also migrate to the IPCA. These are indicator species for a wide range of terrestrial and water-based creatures

that we use which spend part of their lives within the claimed area and would be impacted by mining activities. Birds that we use would also spend part of their lives within the claimed area.

We are on a healing journey, trying to recover from the extreme damage that colonization and attempted forced assimilation have done to our people, including through the imposition of Crown policy and regulatory schemes related to residential schools, dams, relocation, mercury contamination, child apprehension, industrial logging, and mining. Our environment, culture, society, economy, and health have been harmed. We need to allow the land to heal because healthy land will help to heal our people. This is what reconciliation means to Grassy Narrows. We have called on Ontario and on companies to stop pushing mining activity and industrial logging on us. We call on you and your associates at your company to let us protect our land so that we can heal our people.

We strongly urge you to reconsider your plans in our Core Area and to seize this opportunity to set a course for a future that is free of conflict over mining.

Area Subject to Cumulative Effects

For many generations the Crown has imposed harmful law and policy on us, including through the Indian Act, the banning of our ceremonies, residential schools, relocation, the 60s scoop, and the ongoing removal of our children from our community. These policies have caused grave harm to our people and impaired the exercise of our rights. They have undermined our strong society and way of life and have left us more vulnerable to the impacts of industry.

At the same time, Grassy Narrows people and our Territory have been subjected to a long series of industrial attacks which have been imposed on us against our will. These include the damming of our river, mercury pollution, industrial logging, and mining activity. Each of these industrial attacks have had grave impacts on their own which have been well documented. In addition, each of these industrial attacks has compounded the existing harm that remains from previous attacks, creating unbearable cumulative impacts, thereby prolonging and exacerbating our inter-generational crisis.

These extreme and compounding industrial impacts have been carried out by industry, and allowed by the Crown, without any serious consideration of their cumulative effects on Grassy Narrows and the exercise of Grassy Narrows' rights. We have raised clear concerns, since the 1970s at least, that our environment, rights, way of life, and our health were at or beyond the breaking point due to the impacts of industry on the resources on which we have heavily relied for our wellbeing, livelihood, and the viability of our community. We have repeatedly requested environmental assessments. To this day, with respect to our Territory, industry and the Crown have failed to conduct a collaborative Land use Plan; failed to complete a source water protection plan; failed to carry out an environmental assessment; and failed to undertake an assessment of cumulative effects.

Our river that gives us life remains poisoned.

Our walleye are unsafe to eat.

Our sturgeon are rare.

Our moose are scarce.

Our caribou are nearly extirpated.

Our pine marten habitat is depleted.

Our medicines are tainted.

Our sacred landscape is desecrated and scarred.

Our way of life is diminished.

Our people suffer from poverty, food insecurity, disease, and premature death.

Our Treaty rights are impaired, our health has been harmed, and we have been discriminated against.

The crisis that was created by mercury, damming, and relocation, and which has been exacerbated by industrial logging and mining activity, continues.

And yet your company has staked or acquired mining claims or tenure on our Territory. This risks taking us farther past the point of “reasonable,” “justifiable” impacts on Grassy Narrows’ rights, health, and way of life.

We are long past the time when the industry and the Crown should have listened to Grassy Narrows when we said enough is enough. We are decades past the time when industry and the Crown should have realized that the harm to Grassy Narrows was too much, and the Treaty promises were being dishonourably compromised by imposed industry allowed by the Crown. The Crown and industry can no longer impose further impacts on our land and our people when the cumulative impacts from past development mean that any further imposed industry will unjustifiably infringe our Treaty rights, harm our health, and discriminate against us.

We ask your company to open your heart and to respect Grassy Narrows.

Area Subject to Treaty Land Entitlement Claim

We would like to ensure that you are aware that Grassy Narrows has an active Treaty Land Entitlement (“TLE”) claim that has been accepted by the Crown and is under negotiation for resolution. Part of the resolution of the claim will include an addition to Grassy Narrows' reserve lands, and compensation for lost use. Grassy Narrows is currently engaged in a process to select its additional reserve lands. All of Grassy Narrows Territory is currently potential reserve lands additions under consideration.

The Crown has asserted that lands which have encumbrances, such as mining claims, will be more challenging to designate as additional reserve lands. This means that your mining claims and tenures adversely impact our ability to select reserve land additions and are an impediment to the successful resolution of our TLE claim.

Further, lands which have been impacted by mining exploration such as cutting lines, pitting, trenching, stripping, and drilling, decline in ecological health, experience a degradation of their intactness, and therefore become less suitable as additional reserve lands. Over the last few decades, vast parts of our Territory have been encumbered and degraded through industrial actions imposed on Grassy Narrows. This has severely restricted the available suitable

additional reserve lands.

Grassy Narrows has been clear that there should be no new encumbrances on our Territory, and no new degradation to our Territory, as this would unfairly further reduce the available suitable additional reserve lands (in addition to other impacts outlined elsewhere). This would impair the ability to correct the injustice that was done to us by having been denied a fairly sized reserve for over a century.

Area Subject to Litigation

Grassy Narrows has commenced two legal proceedings addressing Crown failures that have the potential to impact your company's mining interests in Grassy Narrows' Core Area.

First, on June 4, 2024, Grassy Narrows served Ontario and Canada with notice of our intention to sue for breach of Treaty obligations, fiduciary duties, and obligations arising from the Honour of the Crown by failing to protect Grassy Narrows Treaty rights, including from:

- The effects of mercury and other pollutants discharged by the pulp and paper mill in Dryden, Ontario, into the English and Wabigoon River System; and

- The cumulative impacts of industry and land use including mining activity.

Paragraph 95 of the Statement of Claim addresses the issue of the Crown's continued authorization of industrial activities that increase the mercury load, net methylation, bioavailability and biomagnification in the ecosystem.

Paragraph 102 outlines the cumulative impacts of industry and land use that have interfered with Grassy Narrows' Treaty rights, including contaminating air, land and water in and around the Area, degrading the land important to hunting, trapping, fishing and gathering, impacting wildlife habitat and populations, and interfering with the spiritual and cultural integrity of the Area and Grassy Narrows' relationship to it, among other things. Paragraph 103 addresses the harms caused by these cumulative impacts of industry and land use.

Your mining claims and other tenures continue the unlawful and harmful Crown conduct that is the subject of the lawsuit.

Secondly, on July 12, 2024, Grassy Narrows served a Notice of Application on Ontario asserting that the Mining Act regime violates section 35 of the *Constitution Act, 1982* by failing to consult, accommodate or obtain consent prior to registering mining claims within the Interim Core Area of Interest for Mining.

Grassy Narrows is seeking a declaration that mining claims registered pursuant to this unconstitutional regime and further mining tenures derived from those leases are invalid, which would include any claims, leases, and patents registered by your company in the Area. Ontario did not consult, accommodate nor obtain consent from Grassy Narrows prior to registering your company's mining claims, and the leases, patents and other mining tenures derived from them.

As relief, Grassy Narrows is seeking a declaration that "existing mining claims, including mining activities such assessment work and exploration activities, and third-party mining interests granted under the Mining Claim Grant Regime within the Area are not consistent with section 35 of the *Constitution Act, 1982* and UNDRIP and are of no force or effect."

If Grassy Narrows is successful in either or both of these legal proceedings, your company's mining claims and other tenures would potentially be impacted and could be invalidated.

Area Subject to Unmet Legal Duties

In 1978, Ontario and Canada signed a Memorandum of Understanding ("1978 MOU") with Grassy Narrows in which the Crown committed to resolve in good faith the impacts of mercury on the environment that Grassy Narrows people heavily relied upon for the viability of our community, and the related health, social, economic, cultural, and environmental impacts on the people of Grassy Narrows. It was agreed that the issues would be resolved through a combination of financial compensation and land, or control over land, and furthermore in a manner that would enhance Grassy Narrows' self-determination, self-sufficiency, and control over local affairs wherever possible.

Although some agreements were reached, there remain outstanding obligations on the Crown, including with respect to increasing Grassy Narrows control and self-determination over Grassy Narrows lands. From the outset of our discussions under the 1978 MOU, Grassy Narrows was clear that in order to recover from the impacts of mercury and other harms, we need Crown recognition of Grassy Narrows' ownership, control, and protection of our Territory which will allow Grassy Narrows to make decisions with respect to our Territory that support our way of life and our livelihood. In the 1970s, 1980s, and 1990s Ontario committed to negotiate increased Grassy Narrows control over our lands, in addition to providing meaningful compensation for our people. However, those negotiations and obligations remain unresolved.

The Crown and Grassy Narrows have a fiduciary relationship, and our Treaty rights attract fiduciary obligations. When the Crown seized functional management and control of our lands and water, including through use of force, in the time since the Crown and Grassy Narrows entered into a Treaty relationship, the Crown assumed a duty to Grassy Narrows when exercising that imposed control over our Indigenous interests including our pre-existing legal interests in exercising our fishing, hunting and trapping rights and other traditional practices, including our medicine gathering and wild-rice picking. Grassy Narrows has been at the mercy of the exercise of Ontario's imposed fiduciary decision-making over our Territory as Ontario unilaterally authorized industrial activity, and otherwise has made decisions that affect the land, water and other natural resources of our Territory which we rely on to exercise our rights, practice our way of life, and maintain our health.

Under imposed Crown management and discretionary control, the health of our Territory and our people have seriously declined, our way of life has been degraded, and the exercise of our Treaty rights has been impaired.

In the 1980s, and since, we called for a moratorium on industrial activity in our Territory until our negotiations with Ontario were concluded.

However, rather than honour this moratorium, the Treaty promises, and the 1978 MOU obligations, Ontario abandoned the negotiations in the mid-1990s and exercised its imposed control in a way that unleashed industry on our Territory to our detriment.

The Crown's dishonourable conduct and abandonment of its fiduciary obligations continue. And now instead of helping to set us on a path back to health, prosperity, and wellness, as promised, the Ministry has granted thousands of mining claims and approved numerous exploration

permits on our Territory. This conduct will compound the harms imposed on our people by further compromising our health and degrading our Territory and impairing and unreasonably limiting the exercise of our rights.

The failure of the Crown to uphold its honour and its fiduciary duty to us has the potential to impact the legitimacy of your claims and your ability to carry out mining exploration activity on them.

Grassy Narrows calls on your company to respect Grassy Narrows' law and rights

We call on Great Bear Resources Ltd. to respect Grassy Narrows' law and our inherent, Aboriginal, and Treaty rights, and to commit to comply with Grassy Narrows' rights and laws.

We call on your company to halt all staking and mineral exploration and mining related activities within the Interim Core Area of Interest for Mining and to confirm this halt in writing with us.

We call on your company to commit to gain our free, prior and informed consent before staking any claims, applying for any tenures, and carrying out any activities within the Interim Core Area of Interest for Mining.

We further call on your company to engage with us, and to gain our free, prior, and informed consent, for activities that are outside of our Core Area, but which may have upstream or downstream, downwind, migratory, or other off-site impacts on our Core Area and our people.

Request to meet to identify and resolve any conflicting third-party interests

If you insist on continuing to hold interests in and operate these claims or other mining tenures in our Core Area of Interest for Mining and that may impact our IPCA, despite the information shared with you in this correspondence – that such activity would be in violation of our ANA law, and our rights and interests and in an area with excessive existing cumulative impacts, that conflicts with our TLE process, and is subject to litigation – then we raise the following additional considerations which form a barrier to us meaningfully understanding your interest in our Core Area and engaging with you about these claims:

1) **Insufficient information:** You have yet to provide ANA with any information related to your past and planned activities with these claims. We have enclosed a list of questions at Appendix A for your company to complete with respect to your activities in our Core Area. Please provide detailed responses to allow ANA to better understand your activities and to prepare to evaluate them.

2) **Capacity funding:** The process of evaluating your activities and engaging with your company comes at an expense to ANA. We must hire staff, engage our community, and obtain professional support from experts, lawyers, and advisors to engage with you in a meaningful way. Our First Nation is even more impoverished than our First Nation peers due to the ongoing impacts of mercury poisoning. We lack the funds required to engage in an informed way. Please commit to funding ANA's reasonable costs of engaging with your company.

3) **Mercury Crisis:** Our territory has already experienced a great deal of harm from industrial activities including mercury, damming, and industrial logging. The cumulative effects of these industrial impacts have already passed the point of an unreasonable,

unjustifiable impact on the exercise of our Treaty rights, and on our health and wellbeing. As a result, our community suffers from unusually high rates of conditions including poverty, food insecurity, disease, neurological conditions, conditions affecting learning, and premature death. We cannot tolerate any further imposed impacts to our environment, our rights, our health, and our wellbeing. As well, the social conditions created by mercury poisoning and the cumulative impacts of industry place us in an ongoing crisis which make us unable to meaningfully engage on mining exploration. We require that the Crown resolve our ongoing crisis caused by mercury contamination and cumulative impacts before we can meaningfully engage about mining.

4) **Fundamental matters must be addressed:** For decades Grassy Narrows has been raising important matters with the Crown including mercury justice, self-determination, unmet obligations, Treaty rights, cumulative impacts, withdrawals, free entry, land use designations, and land protection. Grassy Narrows has invited Ontario to a table to find honourable resolutions to these matters. For years, Ontario has refused to even come to the table. Ontario continues to refuse to come to the table on the fundamental issues that require negotiation. The issues with these many mining claims and other tenures flow from larger upstream strategic issues which continue to fester because Ontario refuses to engage on them, but rather seeks to impose their unilateral will on Grassy Narrows. As the decades pass, it is Grassy Narrows people and our environment who suffer as a result. Ontario must deal honourably with Grassy Narrows by resolving in good faith these long-standing matters.

Grassy Narrows requests that you and your associates at your company meet with the Grassy Narrows Lands Protection Team, once the above barriers have been addressed, to identify and discuss any third-party interests you and your associates at your company may have in the Interim Core Area of Interest for Mining that conflict with Grassy Narrows' rights and interests.

In preparation for a meeting and to ensure it is constructive amongst the parties, Grassy Narrows requests that you and your associates at your company respond to this letter in writing to:

- Confirm your company's attendance at the corporate stakeholder meeting;
- Specify your company's representatives, and their positions, who will attend the meeting;
- Commit to respect the ANA Law and confirm your agreement not to pursue any mining-related activities within the Interim Core Area of Interest for Mining without ANA's free, prior, and informed consent;
- Commit that your company will work with Grassy Narrows in good faith to resolve any potentially conflicting third-party interests in the Interim Core Area of Interest for Mining;
- Specify with particulars any third-party interests you believe exist in the area proposed as the Interim Core Area of Interest for Mining with relation to your company's staked claims or tenures and any concerns which may need to be resolved, and your suggested resolution; and
- Respond to the questions that are listed in Appendix A.

Please respond within 90 days and address all correspondence to Joseph Fobister, Lead Negotiator for the Grassy Narrows Lands Protection Team. While copying ANA's Lands Protection Team, Mike Fobister, David Sone, Jackie Esmonde, Sydney Lang, Dan Mossip-Balkwill, and Annelies Cooper.

We look forward to meeting with you and your associates at your company.

Awsa,

Asubpeeschoseewagong Anishinabek (Grassy Narrows First Nation)

Joseph Fobister, Lead Negotiator for the Grassy Narrows Lands Protection Team.

Cc:

ANA Lands Protection Team
Joseph Fobister, Lead Negotiator (jbfobister@gmail.com)
Mike Fobister, Lands Team Supervisor (mike.fobister@googlemail.com)
David Sone, ANA Advisor (david.sone@gmail.com)
Jackie Esmonde, ANA Legal Counsel (jesmonde@cavalluzzo.com)
Sydney Lang, ANA Legal Counsel (slang@cavalluzzo.com)
Dan Mossip-Balkwill, ANA Advisor (dan.mossip.balkwill@gmail.com)
Annelies Cooper, ANA Advisor (annelies.cooper@gmail.com)

MINES
Susanna Laaksonen-Craig, Deputy Minister (deputy.mines@ontario.ca)
Stephen A. Miller, Mineral Exploration & Development Consultant (stephen.a.miller@ontario.ca)
Patrick Barnes, Consultation and Aboriginal Treaty Rights Advisor (patrick.m.barnes@ontario.ca)
Neal Bennett, Acting Regional Manager, Thunder Bay Office (neal.bennett@ontario.ca)
Teri McDonald, Director, Indigenous Consultation & Partnerships Branch (teri.mcdonald@ontario.ca)
Trina Rawn, Director, Mineral Development Branch (Trina.Rawn@ontario.ca)

MNRF
Drew Vanderduim, Deputy Minister (deputy.mnrf@ontario.ca)
Brian Kilgour, District Manager, Kenora (brian.kilgour@ontario.ca)
Krista Prosser, Resource Liaison Specialist, Kenora (krista.prosser@ontario.ca)
Myles Perchuk, District Manager, Red Lake (myles.perchuk@ontario.ca)
Alissa Van Wynen, District Resource Liaison Specialist, Red Lake (alissa.vanwynen@ontario.ca)

MECP
Serge Imbrogno, Deputy Minister (serge.imbrogno@ontario.ca)
Lisa Trevisan, Assistant Deputy Minister (lisa.trevisan@ontario.ca)
Ann Darby, Senior Program Support Coordinator, Permissions and Program Services Unit

(ann.darby@ontario.ca)

IAO
Shawn Batise, Deputy Minister (shawn.batise@ontario.ca)
Michael Reid, Assistant Deputy Minister (michael.reid@ontario.ca)
Candice Telfer, Acting Assistant Deputy Minister (candice.telfer@ontario.ca)

APPENDIX A

INFORMATION REQUESTS

ANA has become aware that you and your associates at your company hold claims or other mining tenures and may be planning to carry out staking, exploration or mining related work in our area ("mining related activity"). Please provide the following information and answer the following questions in detail in order to allow ANA to understand and assess your activities.

1. Detail when and how your company, and any predecessors on these claims or tenures, have contacted Grassy Narrows and/or MINES with regards to any claim staking and exploration or mining related activity within our Interim Core Area and provide copies of all correspondence to date. Please also provide copies of any previous correspondence between your company, and its predecessors, and Grassy Narrows.

2. Please provide copies of any correspondence between your company and MINES about these claims or mining tenures.

3. Did MINES inform your company that these claims were on Grassy Narrows Territory and within the Grassy Narrows Interim Core Area?

4. Did MINES inform your company that Grassy Narrows has rights and interests in this Area and is concerned about claim staking, mining exploration, and mining activity in this Area?

5. If your claims or tenures were previously held by anybody else, please detail your and your company's relationship with any individuals or companies who previously owned these claims.

6. Do you or your company have an exploration plan or other mining related plans for these claims or tenures, and if so, please provide a copy.

7. Have you or your company or any predecessors, carried out any early exploration activity which does not require notice to MINES or MNRF? If so, please provide detailed information about this work?

8. Does your company have any existing plans, or plans under development, for mining related activity of any kind in, or near, our Interim Core Area, or which could impact the Interim Core Area? If so, please provide complete details. If not, will you commit to sharing with us any such plans, the moment they come under development, should such an instance arise?

9. Specify which mineral resource(s) is/are being explored or developed.

10. Specify the size of the workforce carrying out mining related activities. Provide small/medium scale maps (aerial photography or satellite imagery if possible) of the locality/region that is the subject of the claim staking and any planned mining related activity.

11. Provide a more detailed large-scale map showing location (at high resolution) identifying

where specific mineral exploration activity is to occur. This would identify which mineral claim and where within the mineral claim the planned worksite will be, or has been, and any relevant geographic features. Buffers should be built around the worksite locations to reflect post-permitting 'adjustment' of actual drill hole or access route.

12. Provide any surface geology or other thematic mapping that might suggest landforms important for wildlife distribution, Traditional Land Use, etc. (i.e. eskers, end moraines, outwash channels, glacial lake beds, rivers, lakes, streams, wetlands, portages, etc.).

13. Specify location and provide a detailed summary of any prior mining related activity in the proposed program area, including prior staking, permits and leases, and maps showing their locations.

14. If remediation from past activities is required, how will you remediate the site(s)? If remediation from past activities is not required, please provide documentation supporting this.

15. What is the nature of the proposed activity (e.g. early-stage prospecting, magnetic surveys, geotech auger sampling, shovel testing, diamond drilling, reciprocal drilling with water, bulk sampling, blasting of bedrock, trenching, etc.)? What is the anticipated physical impact of the activity? When will the activity take place? Where will the specific activity take place?

16. Detail the planned access to the proposed program and its location in relation to trails and winter roads in the area. Have or will any new access routes such as trails be created? What alternative access options have been identified, how were they assessed and why was the preferred option chosen?

17. How and when will the worksite be accessed? (e.g. chopper access, winter road logistics, walking rigs on trails prepared by bulldozer, etc.)

18. Has or will a camp site be constructed? Where? Please detail relevant logistics regarding the base camp and waste disposal.

19. Have or will camp materials be removed after the work? In detail, how will garbage, brush, sewage and overburden be dealt with? What kinds of fuel will be used, and how and where will the fuel be stored? How will the fuel be transferred, and what is the contingency plan in the event of a spill? Following the mining related activity, how will the site be cleaned up, reclaimed, or remediated?

20. Please detail the fuel dump management plan. Where are dumps to be located and what are the protocols for removal of barrels or containing spills? Detail whether stream crossings or travel close to lake shores will occur? In addition, detail overlay of proposed activity with hydrological features to understand proximity to lakes, wetlands, and river systems and identify which fish species use those water bodies, and whether any spawning areas or other special habitat areas exist in the area.

21. Detail strategies for protection from spills, ground disturbance, and enhanced erosion from preparing approaches.

22. Will the past or future work, including access, disturb soils in such a way that will

increase the release of mercury from those soils, or increase the net methylation of mercury within those soils? What assessment has been done and what evidence supports your position? What monitoring will be done to confirm this?

23. Specify the nature of site preparation for drilling or other activities (i.e. drill dropped in by chopper onto a log pad, or drill pad cleared and levelled by bulldozer).

24. Provide an overlay of the proposed activity with range maps of moose, wolverine, and caribou.

25. Provide an overlay of proposed activity with land classification details, with a special focus on the sub-range habitat features for moose, wolverine, and caribou (e.g. wintering areas, nursery areas and travel corridors, calving areas, denning areas).

26. Detail the source of all water to be used in the exploration program and their geographic locations. If drilling requires water, where will the water be drawn from; how will it be transported (pump and hose through bush, or hauled in water tanker behind vehicle and drawn along prepared trails); how much will be used, and how will waste water be disposed of?

27. Will the past or future work disturb waterways in such a way that will increase the release of mercury from those waterways, or increase the net methylation of mercury within those waterways or other impacts? What assessment has been done and what evidence supports your position? What monitoring will be done to confirm this?

28. Will any drilling fluids be used? If so, which? What are the procedures that will be used to ensure their safety including storage, use, recovery, removal, and spills?

29. Will any toxic substances be used in the work on present on site? If so, which? What are the procedures that will be used to ensure their safety including storage, use, recovery, removal, and spills?

30. What other authorizations (e.g. fisheries, permit to take water, other permits) are required for this project?

31. How will the mining-related activities change the water, air or land? What impacts will each of these changes have on land, water, fish, and wildlife?

32. Have or will your mining-related activities create any off-site impacts that will impact the Interim Core Area such as downstream or downwind impacts, impacts to migratory wildlife and fish, edge effects, etc.?

33. What will the cumulative impacts of your current and planned activities be and how does this contribute to the overall cumulative impacts of industry on Grassy Narrows Interim Core Area?

34. What First Nations Territories are included in the area of your mining-related activities?

35. What communication have you or your company had with MINES about Aboriginal and Treaty rights in relation to your mining-related? Please provide copies.

36. Has MINES delegated to you or your company any of the procedural (or other) aspects of the Crown's legal duty under Canadian law for consultation and meaningful accommodation with First Nations? If so, which? Please provide all relevant documentation.

37. What is your company's opinion on what ANA's inherent, Aboriginal and Treaty rights are on the area of your mining-related activities?

38. What is your company's opinion on what your responsibilities are with respect to ANA's inherent, Aboriginal, and Treaty rights in the area of your mining-related activities?

39. Does your company commit to abiding by the United Nations Declaration on the Rights of Indigenous Peoples?

40. Does your company commit to not carry out staking, mining exploration, and other mining related activities in the Interim Core Area of Interest for Mining unless ANA has given its free, prior, and informed consent?

41. Will your company fund ANA's reasonable costs of engaging with your company including the costs of ANA staff, community engagement, experts, legal counsel, and advisors?

42. Will your company fund ANA to commission an independent archaeological assessment of your activity areas including drill sites, access routes, camps, waste sites, etc.?

43. Does your company have a policy and an enforcement plan to prevent gender-based violence by your employees and contractors?

44. What is the total area (in ha) of your company's combined claims and leases in the Interim Core Area?

45. What is the total dollar value of the work that you and/or your company has, or any predecessors have, done on claims and leases in the Interim Core Area to date?

46. What is your and/or your company's appraisal of the market value of your combined claims and leases in the Interim Core Area?

47. Does your company commit to respecting the ANA Land Declaration and other ANA laws?

48. Do you and/or your company believe that you have any interests in the Interim Core Area? Please specify.

49. Do you and/or your company believe that any of your asserted interests may conflict with the Interim Core Area? Please specify how and provide reasons. Please also outline your company's proposed resolution.

50. Do you or your company have any other concerns which may need to be resolved with ANA? Please outline your suggested resolutions in detail.

51. Do you and/or your company commit to working with ANA in good faith to resolve any

potentially conflicting interests which you and/or your company believes you have in the Interim Core Area?

52. Will you and/or your company write a letter expressing support for ANA's Interim Core Area?

Who is Kinross?

Large, Americas-Focused Gold Producer

Kinross is a Canadian-based global senior gold mining company with operations and projects in the United States, Brazil, Mauritania, Chile and Canada.

- Operations
- Development Projects
- Advanced Exploration Project
- Head Office

Global Mining Leader in Sustainability

Over 80%
average water recycling rate over the past 5 years

Zero
tailings breaches in Kinross' 31-year history

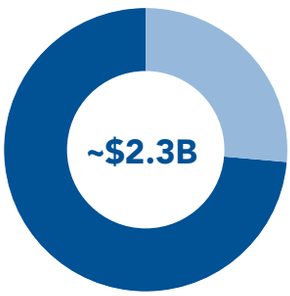
99%
of Kinross workforce hired from within host countries

~475,000
beneficiaries of community programs

$4.1 billion
of economic benefits generated through taxes, wages, procurement & community support

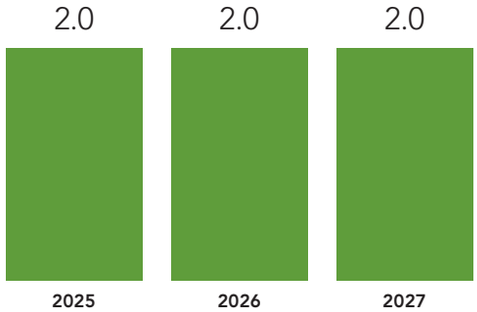
Liquidity Position

(As at December 31, 2024)



Strong Production Outlook[1]

Million Au eq. oz. (+/- 5)



Great Bear Building a Legacy in Red Lake, Ontario

We are a proudly Canadian company and dedicated to developing a world-class project in Northern Ontario that will help deliver positive and lasting benefits for generations to come.

Kinross acquired Great Bear in February 2022 for

$1.4 billion

with associated debt fully repaid

Completed

Preliminary Economic Assessment (PEA)

demonstrating top-tier, high-margin production potential

Planned capital investment of

$1.4 billion

by start of production

1. Kinross' outlook, which is reported on an attributable basis including Kinross' share of Manh Choh (70%), represents forward-looking information. Actual results may vary.

This Fact Sheet contains forward-looking information about expected future events and financial and operating performance of Kinross. We refer readers to the risks and assumptions set out in our Cautionary Statement on Forward-Looking Information located on pages 41 and 42 of our press release dated February 12, 2025. All figures are in U.S. dollars unless otherwise noted. All Sustainability data is from the 2023 Sustainability Report unless otherwise noted.

Building a World-Class Canadian Gold Mine

Strong Partnerships
Continued engagement with Indigenous and local communities in Northwestern Ontario

Best in Class Design
Robust tailings and water management strategy leveraging the best available technologies to ensure the highest environmental standards

Driving Economic Growth
Approximately $856M in combined federal and provincial taxes over the initial 12-year LOM at $1900/oz. gold

Potential Long-Life Open Pit and Underground Mine
Annual production of over 500,000 ounces

Local Employment
700–1,100 jobs

J. Paul Rollinson (Kinross CEO), Chief Petiquan (Wabauskang First Nation) and Chief Bull (Lac Seul First Nation) share gifts to recognize the signing of the Advanced Exploration Agreement.

PEA HIGHLIGHTS STRONG ECONOMICS AND POSITIVE TECHNICAL ATTRIBUTES[3]

518 koz.
Average annual production over the first 8 years

12 Year Initial Mine Life
Strong underground expansion potential

$812/oz. AISC
Over life of mine

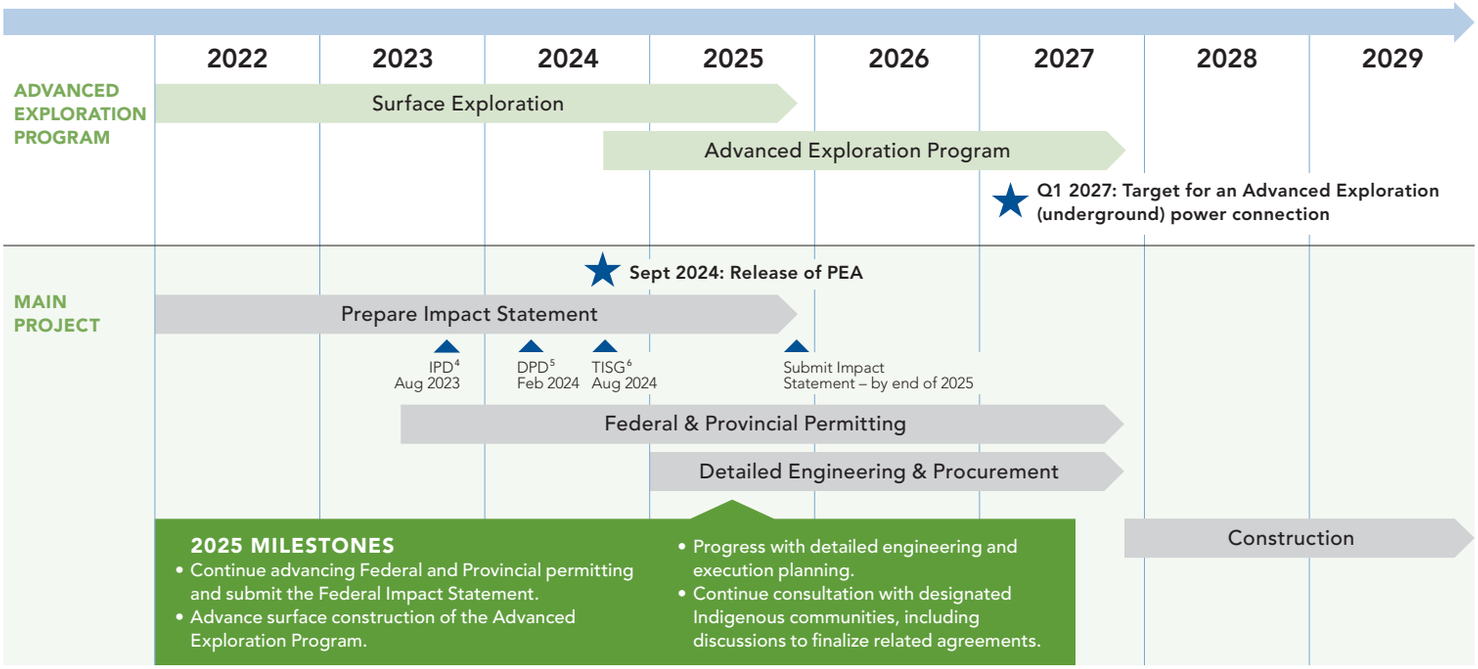
$1,898M NPV
$3,314M NPV at $2,500/oz. gold

2.7 Moz. M&I and 3.9 Moz. Inferred Resources
Increased Inferred Resource estimate by 568,000 ounces

Note: PEA metrics calculated after-tax at $1,900/oz. and are discounted at 5% where applicable; All dollar amounts are expressed in U.S. dollars.

Our Targeted Path to Production

Kinross is continuing to progress work in several areas across the Project, for both the Advanced Exploration Program (AEX) and the Main Project. Both the AEX and Main Project remain subject to permitting, which continues to advance.



2. Annual production over 500,000 ounces for the first 8 years.

3. The Great Bear PEA referenced in this Fact Sheet is preliminary in nature and is based, in part, on Inferred Mineral Resources. Inferred Mineral Resources are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the economic forecasts on which the PEA is based will be realized.

4. IPD = Inital Project Description
5. DPD = Detailed Project Description
6. TISG = Tailored Impact Statement Guidelines

Feedback Form

Regional Electricity Planning - North of Dryden Addendum Study

Feedback Provided by:

Name: Christine Petch

Title: Vice-President & Project Director

Organization: Kinross Gold Corporation

Email: christine.petch@kinross.com

Date: 21 May 2025

To promote transparency, feedback submitted will be posted on this engagement webpage unless otherwise requested by the sender.

Following the North of Dryden Addendum regional planning webinar held on May 7, 2025, the Independent Electricity System Operator (IESO) is seeking feedback on the demand forecast, electricity needs, and options screening. A copy of the presentation as well as recording of the session can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by May 21, 2025.

North of Dryden Addendum Study

Topic	Feedback
What feedback do you have regarding the demand forecast?	Please confirm that the demand forecast we provided to IESO (initially on November 7, 2024 and then updated on April 15, 2025) for both the Advanced Exploration and Production Phases of our Great Bear Project, have been incorporated into the North of Dryden Reference Case. (Please also see additional confidential submission).
What feedback do you have regarding the electricity needs identified?	The Red Lake Reference forecast exceeds the existing E4D's LMC by 2028 (Slide 19). IESO / HONI need to develop a plan to meet the demand for the interim period between 2028 and when the new transmission lines will be in service.
What feedback do you have regarding the options screened to meet the needs?	Reliable and low-cost power that is available when our mine comes into production is critical for our project. The 3 options will have different Load Meeting Capability for loads in the Ear Falls to Red Lake (and beyond) area. While a new 115 kV line from Ear Falls to Red Lake may meet immediate needs, it is likely not sufficient to meet medium-long term needs. Further, a new 115 kV line will not be adequate to fully off-load the existing 115 kV circuits when the existing circuits need repairs (also see below). A 230 kV line from Ear Falls to Red Lake should be included as sub-options for Options 1 and 2.
What additional information should be considered as we evaluate options?	It is our understanding that some of the conductors on the E2R and E4D circuits will need replacement in approximately 15 years. In order to make the repairs, significant outages would result to customers (with associated costs) and impact grid reliability and availability. Outage and customer impact should be considered in the LMC evaluation and the recommended solution.
What additional information should be provided in future engagements to help understand perspectives and insights?	Information should be provided on the anticipated schedule to develop and construct the new infrastructure, and if the construction could be staged to meet the requirements of various customers. We request that IESO consider this project as high priority; otherwise it will

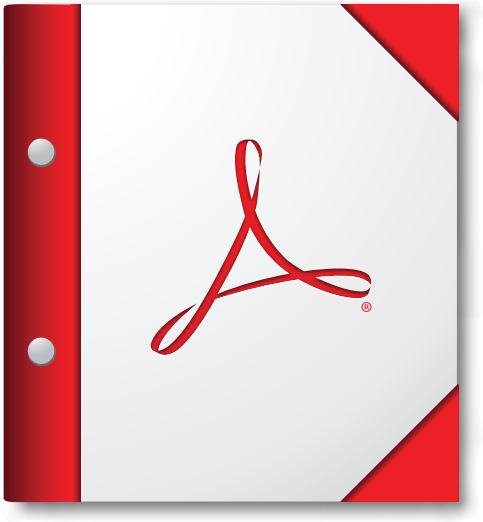
Topic	Feedback
	materially hamper the development of several mining projects, including ours. What are the anticipated costs and what would be the cost allocation to customers given that there will be broad network benefits.

General Comments/Feedback

Kinross Gold Corporation (Kinross) is currently advancing the development of the Great Bear Gold Project, located southeast of Red Lake, Ontario. The Project is being developed by Great Bear Resources Ltd., a wholly owned subsidiary of Kinross, and will include both underground and open-pit gold mining, supported by an on-site processing facility and related infrastructure. Kinross is currently in the permitting and early construction stage for its Advanced Exploration (AEX) Program. Kinross intends to build upon this infrastructure, where practical, to support the transition to full operations (Main Project). Detailed engineering is underway for the Main Project, which is targeted to commence construction in 2027. Once operational, the Great Bear Project is anticipated to be a major economic driver for Northwestern Ontario and the wider province and expected to support between 700 and 1100 direct local jobs. The Great Bear Project is being developed in close collaboration with Indigenous and local communities in Northwestern Ontario. (Please refer to the attached factsheet for additional details on the Great Bear Project).

Access to sufficient and reliable power is critical to the success of the Great Bear Project. The current transmission network in this sub-region is amongst the oldest in the province. Based on historical timelines for new transmission infrastructure in Ontario, Kinross is concerned that the schedule for the proposed new transmission assets may not align with our project's development schedule. Significant investment and timely improvements are urgently needed to support local communities and enable sustainable economic growth in Northwestern Ontario.

Kinross has been engaged with the IESO on the grid connection process for our project since 2022 and will continue with ongoing constructive dialogue. We respectfully request that the IESO take this feedback into consideration as it advances planning and implementation efforts.



For the best experience, open this PDF portfolio in Acrobat X or Adobe Reader X, or later.

Get Adobe Reader Now!

Asubpeeschoseewagong
Netum Anishinabek
GRASSY NARROWS, ONTARIO P0X 1B0 • PHONE: (807) 925-2201 • FAX: (807) 925-2649

May 22, 2025

BY EMAIL

Attention: Aaron MacDonell (aaron.macdonell@kinross.com)
Kinross Gold Corp.

Dear Aaron MacDonell,

RE: Great Bear Gold Project – IA Process

I am writing on behalf of the Grassy Narrows First Nation's Land Protection Team with respect to the Impact Assessment for the Great Bear Gold Project.

Over the past few months, you have asked us to comment on and respond to your proposals in relation to various aspects of the Impact Statement that you are preparing. You have consistently requested that we provide comments within a short two-week time period and have denied our requests for additional time to respond.

Your timelines do not work for us.

We have informed you on multiple occassions that your timelines are insufficient and that we need more time to review your proposals, to assess their impacts, to engage with our community and our experts, to carry out our governance process, and to develop a response. Some of your questions require extensive research, archival work, and studies to answer. This kind of work typically takes years to complete. A few weeks is insufficient time in the best of circumstances.

As you know, our Territory has already experienced a great deal of harm from industrial activities. As a result, our community suffers from unusually high rates of conditions including poverty, food insecurity, disease, neurological conditions, conditions affecting learning, youth suicide, and premature death. The health and social conditions created by mercury poisoning and the cumulative impacts of industry place us in an ongoing crisis which is a barrier to our ability to meaningfully engage within your timelines.

We also need sufficient time to complete our own studies, including a land use and occupancy study, ethnohistorical report, baseline water and wildlife studies, social and economic impact studies, cumulative impacts assessments, and an ANA Indigenous Environmental Assessment, among other things. We have informed you of this requirement from the outset, and yet you have only recently provided capacity support, and only for a subset of these needs. We have begun work on that subset, but as noted

before, this work takes time.

Simply put, we need more time.

Grassy Narrows needs to be included in this process, but we need to be included in a good way.

For example, on March 3, 2025, you informed us that you had hired consultants to collect community-specific information from on-reserve service providers in Grassy Narrows. You gave us until March 21, 2025, only 14 business days, to provide you with this information. If we did not respond to you by March 10, 2025, you said that you would instruct your consultants to reach out to key service providers in Grassy Narrows on March 11, 2025 without us. You planned to move forward in this manner without our participation and/or consent to do so. We asked for more time and that you pause this work in the meantime. In response, you denied our request for more time and instead responded that the Impact Statement will proceed without this information.

The process that you proposed to collect data on the effects of the Project on on-reserve services was not a meaningful process and did not provide us with sufficient time to consider your proposal, let alone complete the work that you requested. The Impact Statement must include this information and we need to be included in this process. Grassy Narrows needs 180 days to prepare a submission with respect to the effects of the Project on the social conditions of Grassy Narrows, particularly with respect to on-reserve services. Grassy Narrows also needs 180 days to review the memo that you prepared with respect to the secondary sources of traditional knowledge and the sources therein. We also need substantial additional time to complete our preliminary Landuse and Occupancy study.

We have yet to receive any funding to complete baseline studies on water, fish, and wildlife. You have asked us to rely on baseline work done by others. But when our experts reviewed that work they found fundamental flaws, including the use of invalid lab methods, misleading reporting of data, insufficient duration of studies, and an absence of key parameters. Our experts concluded that your existing baseline data is inadequate, so we cannot rely on it.

On December 19, 2024, you shared with us a Mercury Study Plan with a short window for comments. As you know, mercury is a primary concern for us, and this Study Plan purports to be capable of determining whether your mine will have impacts on mercury and methylation. Our experts provided preliminary comments in which they identified fundamental flaws in your Mercury Study Plan. However, we have yet to hear any response from you. We have yet to receive an updated Mercury Study Plan that seeks to correct the fundamental flaws for our review. We also know that the IAAC plans to establish an independent Expert Technical Review group on methylation, but this group has yet to be established and so has not been able to review your Mercury Study Plan which is highly relevant to their mandate. We have yet to hear anything about how you propose to proceed.

We strongly urge you not to proceed with the fundamentally flawed Mercury Study Plan until:

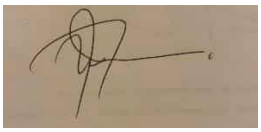
a. You have corrected all of the flaws identified in our preliminary comments and our experts have verified this;
b. We have had time to complete a comprehensive review of the revised Study Plan and to identify any further concerns;
c. The IAAC Expert Technical Review group has reviewed the Study Plan and found it to be valid; and
d. We have given our consent for the Study Plan.

Your approach to engagement with respect to Phase 2 of the Impact Assessment process has been rushed, has not respected the context that we are working from and our repeated requests for more time, and has not been consistent with the spirit of reconciliation, the duty to consult, the standard of free, prior and informed consent, nor the *United Nations Declaration on the Rights of Indigenous People.*

We again call on Kinross to pause the process, and to provide us with sufficient time to meaningully engage and participate in the Impact Assessment process and to respect that we are a mercury poisoned community that is actively dealing with the mercury crisis and the cumulative impacts of industrial activities.

Please confirm in writing that you will respect our need for additional time to meaningfully engage and participate in all stages of the Impact Assessment process.

Miigwetch,



Joseph B. Fobister
Lead Negotiator, Grassy Narrows Lands Protection Team

C.C.

Grassy Narrows Lands Protection Team
Mike Fobister, Supervisor, Lands Protection Team (mike.fobister@googlemail.com)
David Sone, ANA Advisor (david.sone@gmail.com)
Dan Mossip-Balkwill, ANA Advisor (dan.mossip.balkwill@gmail.com)
Annelies Cooper, ANA Advisor (annelies.cooper@gmail.com)
Jackie Esmonde, ANA Legal Counsel (jesmonde@cavalluzzo.com)
Sydney Lang, ANA Legal Counsel (slang@cavalluzzo.com)

Joseph Castrilli, Legal Counsel (castrillij@sympatico.ca)
Rick Lindgren, Legal Counsel (r.lindgren@sympatico.ca)

Great Bear/Kinross
Luke Crosby (luke.crosby@kinross.com)
David Bursey (burseyd@bennettjones.com)

Impact Assessment Agency of Canada
Amy Sen, Acting Director, Ontario Region (greatbear@iaac-aeic.gc.ca)
Ian Ketcheson, Vice-President, Indigenous Relations Sector (ian.ketcheson@iaac-aeic.g.ca)
Natalie Boyd, Project Manager (natalie.boyd@iaac-aeic.gc.ca)
Ian Lindsay, Senior Consultation Analyst (ian.lindsay@iaac-aeic.gc.ca)
Carl Johansson, Team Leader, Ontario Region (carl.Johansson@iaac-aeic.gc.ca)
Elyse Batista, Environmental Analyst (elyse.batista@iaac-aeic.gc.ca)

Kinross Great Bear / IAAC Touchpoint Meeting

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [13]	Hybrid [0]
Location:	Virtual		
Time:	1000 AM ET – 1030 AM ET		
Date:	May 23, 2025		
Executive Summary:	Impact Assessment Agency of Canada (IAAC) and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. IAAC provided an update on recent communications from ANA related to the Methylmercury Study Plan, in addition to other letter communications. Kinross Great Bear advised that while a Methylmercury Study Plan response had been planned for release, new information submitted by ANA dated April 29, 2025, requires further review. As a result, Kinross will issue a comprehensive response targeted to next week addressing both the original and updated materials. Kinross also expressed concern with ANA's January 31, 2025, submission, noting that the comments were vague and lacked specific technical feedback, characterizing them as general critiques rather than substantive input. This concern will be reflected in Kinross's formal response, which will also be shared with all parties copied in ANA's correspondence. Kinross sought clarification from IAAC on whether ANA's consent would be required for the Methylmercury Study Plan to proceed. IAAC confirmed that consent is not a requirement; rather, the Methylmercury Study Plan serves an informative role and can be reviewed by the Expert Techincal Review (ETR) to support technical understanding. IAAC emphasized that while the ETR can contribute expert input, it is not a decision-making body nor a forum for policy or rights-based determinations. Its function is to complement the assessment process with evidence-based findings. Kinross reiterated concerns about the objectivity of ANA's proposed experts and the potential for the ETR's findings to be misused or misunderstood publicly, particularly in light of prior permit revocations linked to disputed methylmercury studies. IAAC acknowledged the importance of maintaining public confidence and confirmed that the ETR's role is to inform—not to drive—outcomes, and that differing perspectives are expected and valid within the process. IAAC also advised Kinross to be cautious with language suggesting the process is "halted," and Kinross affirmed its continued commitment to the process while recognizing current frustrations. In terms of coordination, IAAC confirmed plans to meet with the Ministry of Environment, Conservation and Parks (MECP) in early June to discuss sulphate-related issues, followed by a subsequent meeting with Kinross Great Bear in mid-to-late June. IAAC requested that Kinross provide proposed timing and topics for a technical briefing by May 29, 2025. Kinross committed to submitting this material by May 28. Key Words: Water Management, Surface Water, Sulphate, ANA, Mercury, Methylmercury		

Client Name:	Kinross Gold Corporation	Project No:	
Key Actions:	a. Great Bear i. Kinross Great Bear to issue to IAAC Technical Briefing Workplan/Schedule by Wednesday May 28th. ii. Great Bear to issue Methylmercury Study Plan review. b. IAAC i. IAAC to update Kinross Great Bear on timing confirmation for technical briefing meetings. ii.		

1. **Attendance**

Kinross Great Bear

- Mac Potter
- Connor Devereaux
- Luke Crosby
- Ashley Moncrief

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Carter McCrae
- Christine Greenway
- Ian Lindsay
- Ian Martin
- Elizabeth Chan
- Dietrich Maahs
- Kiera Smith

2. **Agenda and Attachments**

None provided.

3. **Minutes**
    a. ANA Communication Update
        i. IAAC noted that they received several communications from ANA, with focus on the Methylmercury Study Plan.
            1. Kinross Great Bear notes that the response was planned to be issued today, noting that Source attachment dated April 29th, 2025, presented new information. This information is under review, and the response to the original and updated information will be issued next week.

2. Kinross Great Bear notes that concern with January 31st, 2025 communication is that comments are vague in nature. The comments are not specific and are critiques vs. specific information. Great Bear will provide comments that reflect this dynamic, and IAAC will see this.
    a. IAAC thanks Great Bear for the update.
3. Question:
    a. What is IAACs opinion on the ETR reviewing the Methylmercury Study Plan, and requiring ANA approval. Great Bear is agreeable to ETR reviewing the plan itself to ensure they are informed, however, we note that achieving consent and approval from ANA on the overall plan is unreasonable. Will ANA consent on the Study Plan be an aspect that IAAC requires.
        i. IAAC notes that consent is not what we are looking for. IAAC notes the informative nature of the Study Plan, and welcome ETR supporting the informing the study plan. Review of methodological or technical considerations can be done through other aspects, consent to the study plan will not be required from ANA.

ii. Expert Technical Review (ETR)
1. Kinross Great Bear spoke to response to the ETR, we hold concern with those names that have been presented by ANA. Great Bear notes that we would like to ensure objectivity and balance.
    a. IAAC notes that the ETR expert selection is based on two factors ensuring the topic of note, but also impartiality. The ETR itself is not a panel in nature, this is a different mechanism. The ETR has a key objective in supporting the assessment process, providing technical information and complementing evidence-based decision making. The ETR produces a report based on the information received, the report and findings are provided for consideration vs. a decision-making forum. The ETR is not a forum for policy or rights-based decision considerations (such as the consumption guidance), the concern that the ETR will have an outsized effect is overblown in IAACs opinion.
        i. Kinross Great Bear notes that ANA has weaponized the methylmercury studies completed to date. Great Bear has communicated the issues with the studies completed and application of these to the Project. Kinross Great Bear notes that these concerns have led to the revocation of permits related to AEX, and halted our advancement with respect to permits. We respect the direction of the Agency; Kinross Great Bear continues to hold significant reservations with findings of ETR, and potential for public fallout.
            1. IAAC agrees with considerations to public aspects and values the opinion of Kinross Great Bear, IAAC sees the ETR as providing a value-added context to the assessment and providing technical validation of findings. Our goal in achieving certainty is aligned.

2. IAAC notes the purpose of the ETR, is not to seek consensus but to promote clear and transparent viewpoints to inform the findings. It is expected that disagreement needs to be considered.

b. IAAC notes to Kinross Great Bear to watch language on halt in direction, if Great Bear feels that process has been halted or stalled, but we are in position to support.
   i. Kinross Great Bear notes challenges, and we recognize the work IAAC and Crown are doing. The language is a reflection of our frustration and appreciate the efforts of the Agency.

b. IAAC Update
   i. IAAC will be meeting in early June with MECP to discuss sulphates, with a follow-up meeting planned with Kinross Great Bear for mid-late June. The timing on this is subject to direction in initial meeting but IAAC will ensure that Kinross Great Bear is in loop.
   ii. IAAC requested that Kinross Great Bear provide technical briefing timing, and topic considerations. Any information/workplan would be appreciated by Thursday May 29th.
      1. Kinross Great Bear to issue to IAAC by Wednesday May 28th.

c. Next Steps
   i. Great Bear to in its response to Methylmercury Study Plan will be issued to all parties copied in the communication from ANA. IAAC will see this response in the near term.

Meeting closed at 1030 AM ET.

4. Action Items

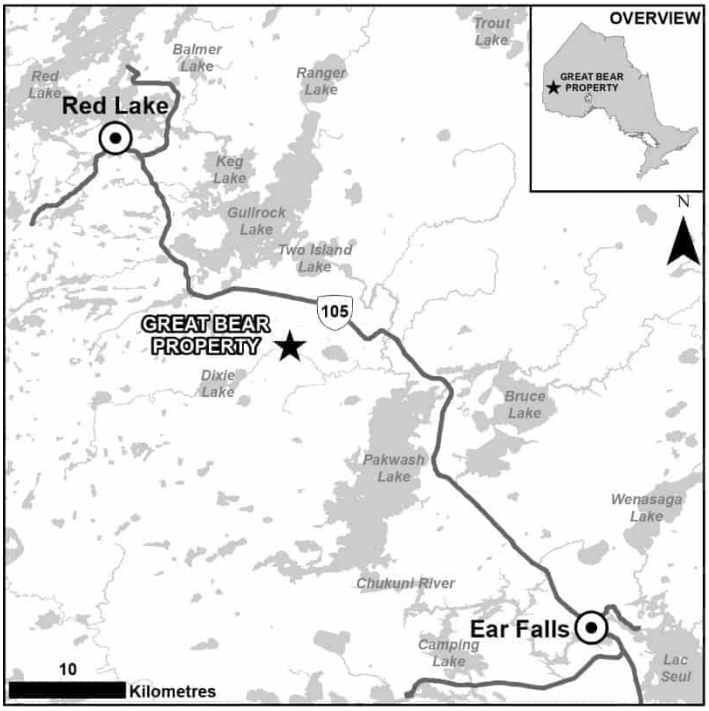
a. Great Bear
   i. Kinross Great Bear to issue to IAAC Technical Briefing Workplan/Schedule by Wednesday May 28th.
   ii. Great Bear to issue Methylmercury Study Plan review.

b. IAAC
   i. IAAC to update Kinross Great Bear on timing confirmation for technical briefing meetings.

Dated: May 23, 2025

Notice of Completion of a Screening Report
Great Bear Temporary Generators

This Notice of Completion of a Screening Report is provided to inform the public, Indigenous communities and interested parties that **Great Bear Resources Ltd.**, a wholly owned subsidiary of Kinross Gold Corporation has completed an environmental study to determine the potential environmental effects of the installation of between 1 megawatt and 5 megawatts of diesel-fired generation (the **Temporary Generators** project) on the Great Bear Property.



The Great Bear property is located approximately 25 kilometres southeast of Red Lake in northwestern Ontario. The advanced exploration program requires a reliable power supply to support onsite activities early in the program. The **Temporary Generators** project will provide temporary power for the advanced exploration program, to be replaced with a more favourable power supply option once it can be established.

The study was carried out in accordance with the Environmental Screening Process for Electricity Projects set out in Ontario Regulation 50/24 (*Part II: Electricity Projects*) under the Ontario *Environmental Assessment Act*.

The Environmental Screening Report concluded that there are no significant negative environmental effects. Great Bear Resources intends to proceed with the **Temporary Generators** project subject to other required approvals.

Members of the public, Indigenous communities and interested parties are invited to review the Screening Report beginning on May 23, 2025 during regular business hours at the Great Bear Resources office, 104 Howey Steet, Red Lake, ON, or:

Margaret McDougall
Memorial Public Library
117 Howey Street
Red Lake, Ontario
PH: (807) 727-2230

Ear Falls Library
2 Willow Crescent
Ear Falls, Ontario
PH: (807) 222-3209

Balmertown Library
12 Fifth Street
Balmertown, Ontario
PH: (807) 735-2110

Any outstanding concerns about the **Temporary Generators** project should be emailed to: greatbearinfo@kinross.com. The last day comments can be submitted is June 23, 2025

If the matter is unable to be resolved, the concerned individual may submit a written request to the Minister and Director of the Ministry of the Environment, Conservation and Parks (MECP), and Great Bear Resources, to elevate the project to an Environmental Review or to a Comprehensive Environmental Assessment. Contact information:

Minister, Ministry of the Environment, Conservation and Parks
777 Bay St., 5th Floor, Toronto, ON M7A 2J3
minister@mecp@ontario.ca

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
Environmental Assessment Branch
135 St. Clair Avenue West, 7th Floor
Toronto, ON M4V 1P5
EABDirector@ontario.ca

Aaron MacDonell, Director, Environmental Services
Great Bear Resources
25 York Street, Suite 15th Floor
Toronto, ON M5J 2V5
greatbearinfo@kinross.com

Elevation requests must be made according to the provisions set out in the MECP Environmental Screening Process for Electricity Projects. Requests must be received within the 30-day review period between May 23, 2025, June 25, 2025.

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment, Conservation and Parks for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s.37 of the Freedom of Information and Protection of Privacy Act. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at 416-314-4075.

Docusign Envelope ID: FD8465F6-5E7A-4051-AB7E-74AC6C68842C

May 26, 2025

Honourable Stephen Lecce
Minister of Energy and Mines
10th Floor, 77 Grenville St.
Toronto, ON M7A 2C1

Re: Prioritization of Dryden to Red Lake Transmission Line

Boozhoo Minister Lecce,

Migisi Sahgaigan (Eagle Lake First Nation), Lac Seul First Nation, and Wabauskang First Nation are asking the Ontario government to prioritize the development of transmission lines to address power supply issues north of Dryden.

The Independent Electricity System Operator (IESO) is preparing to recommend the necessary transmission option(s) for the region. We believe the recommended transmission option(s) must address the region's long-term power needs and be prioritized to prevent any upcoming capacity restrictions. With power to Red Lake at its limit, there is a risk that First Nation communities north and south of Red Lake will face development restrictions in a time when new housing, community infrastructure, and services are badly needed. As such, we support the construction of a new 230kV line from Dryden to Red Lake as the recommended option.

We support the planning and development of the Project, however, it will still require the consent and meaningful participation of First Nations to move forward with construction. To this end, our three Nations are exploring a partnership with Hydro One. As partners, we can ensure the Project is developed, constructed, and maintained in a way that reflects our economic, environmental, and social priorities. We believe that designating a transmitter is a critical first step to initiate this Project and meet the urgent timelines. Hydro One is best positioned to develop the Project and has committed to meaningful First Nations participation under its "First Nation Equity Partnership Model." As such, we are requesting that Ontario designate Hydro One as the developer to initiate this Project.

Miigwech,

Chief Bill Petiquan
Wabauskang First Nation

Signed by: Chief Clifford Bull
A27A5B3B57C5426...
Chief Clifford Bull
Lac Seul First Nation

Signed by: Chief Bernadette Wabange
327448923E594A4...
Chief Bernadette Wabange
Migisi Sahgaigan

Docusign Envelope ID: FD8465F6-5E7A-4051-AB7E-74AC6C68842C

Cc:

Lesley Gallinger – Independent Electricity System Operator (IESO), CEO and President
David Lebeter – Hydro One, CEO and President
Matthew Jackson – Hydro One, Director Indigenous Relations Partnerships & Business Development
Samir Adkar – Ministry of Energy, Director - Energy Networks & Indigenous Policy Branch

Great Bear Resources Ltd.
A Kinross Company
104 Howey Street
Red Lake, ON
P0V 2M0

Memorandum – Navigable Waters Act and Consultation Consideration

To: Transport Canada
From: Mac Potter, Great Bear Resources Ltd.
cc: Aaron MacDonell, Great Bear Resources Ltd., Ashley Moncrief, Great Bear Resources Ltd
Date: June 6, 2025
Re: Navigable Waters Consultation and Engagement Briefing

Introduction

Great Bear Resources Ltd. (Great Bear Resources), a wholly owned subsidiary of Kinross Gold Corporation, is proposing to develop the Great Bear Project (Project), a proposed gold mine with related facilities and infrastructure to be located approximately 25 kilometres (km) southeast of the Municipality of Red Lake in northwestern Ontari**o**.

The Project is located primarily within the watershed of the Dixie Creek and associated tributaries. Dixie Creek flows into the Chukuni River which is a relatively large water system that flows into Pakwash Lake.

Objectives

Consultation and outreach have been conducted to support the assessment by Transport Canada of the navigability of the following watercourses and waterbodies:

- Unnamed Watercourse 1, 2, 3, 4 and 6
- Unnamed Waterbody 1, 2, 4 and 6
- Dixie Creek

Potential effects to navigation may result from overprinting by mine-related facilities and infrastructure, or reductions in flow and level resulting from a need to contain contact waters for the Project. Access, water flows and water levels in some of the above listed watercourses and waterbodies may be affected. Great Bear Resources recognizes that the Chukuni River has been used and continues to be navigated.

As per the Canadian Navigable Waters Act, a navigable water is defined as:

“a body of water, including a canal or any other body of water created or altered as a result of the construction of any work, that is used or where there is a reasonable likelihood that it will be used by vessels, in full or in part, for any part of the year as a means of transport or travel for commercial or recreational purposes, or as a means of transport or travel for Indigenous peoples of Canada exercising rights recognized and affirmed by section 35 of the Constitution Act, 1982, and a) there is public access, by land or by water; b) there is no such public access but there are two or more riparian owners; or c) Her Majesty in right of Canada or a province is the only riparian owner.”

Great Bear Resources understands that Transport Canada will assess the navigability of each watercourse or waterbody based on specific categories. This memorandum outlines Great Bear Resources’ approach to gathering information on accessibility and use of these waterways by vessels for transportation or travel purposes—whether commercial, recreational, or related to the exercise of Indigenous rights—by the public stakeholders, resources users and Indigenous rightsholders.

Consultation and Outreach Efforts

Great Bear Resources has attempted to obtain information regarding Indigenous and public use of these watercourses and waterbodies from the communities of Wabauskang First Nation (WFN) and Lac Seul First Nation (LSFN), Asubpeeschoseewagong Netum Anishinabek (ANA), and the Northwestern Ontario Métis Community (NWOMC). Great Bear Resources has received input from these communities on the comprehensive environmental baseline program completed and ongoing at the site. In addition, input has been received through the advanced exploration permitting process. An overview of the dialogue to date is presented below as efforts are summarized in Table 1 Summary of Activities.

Wabauskang First Nation and Lac Seul First Nation

Great Bear Resources has held detailed discussions to date with WFN and LSFN. The ongoing dialogue has focused on water management, environmental monitoring, and the integration of Traditional Knowledge and Land Use as part of the decision-making processes. WFN and LSFN have engaged an Anishinaabe Led Impact Assessment (ALIA) seeking to further validate and drive community decision making related to the Project. In addition Great Bear, WFN, and LSFN hold monthly Environmental Management Committee meetings seeking to address key information needs, consideration to Navigable Waters and requests for information has been presented in this forum. Comments raised as part of dialogue to date include the potential for cumulative impacts on the Chukuni River and surrounding waterbodies. Consultation remains ongoing, with attention to specific feedback on water management, water treatment, sediment quality and aquatic resource protection. LSFN and WFN have emphasized the need for robust safeguards to prevent long-term environmental harm, particularly given the cultural significance of the Chukuni River.

Great Bear Resources has reached out to WFN and LSFN staff over the course of 2023 and 2024 in a specific manner, to validate current knowledge on waterway usage across the local area. To date no usage of Unnamed Watercourse 1, 2, 3, 4 and 6, Unnamed Waterbody 1, 2, 4 and 6, or Dixie Creek for navigation in the past or present, has been identified. This assumption has been validated through the delivery of interim Traditional Knowledge and Land Use data from each of WFN and LSFN, and receipt of a joint report tied to the ALIA. This information is confidential and continues to evolve as part of the ALIA process. Confidential documentation provided to Great Bear Resources from the communities to date include:

- Dillon Consulting, SOAR Professional Services, Sapo'nuk Sustainability and University of Victoria Professors (Dillon et al.). 2025. Extracts from What We Heard Report (June 10, 2024), provided to Great Bear Resources.
- Pathfinder Consultants (Pathfinder). 2025. Lac Seul First Nation - Kinross Great Bear Project, Lac Seul First Nation Traditional Knowledge Studies, Response memorandum dated May 1, 2025.
- Shared Value Solutions. 2024. "The Centre of The Universe": Stories of Obishikokaang, Lac Seul First Nation Traditional Knowledge & Land Use Study.
- Wabauskang First Nation (WFN). 2024. Wabauskang First Nation Traditional Knowledge Mapping Study Using GIS Project 2021-2022.

Use of larger-order water ways including the Chukuni River has been articulated, in addition to harvest across larger, regional lakes (off-Property).

Asubpeeschoseewagong Netum Anishinabek

Great Bear Resources has maintained active engagement with the ANA to address environmental and cultural concerns related to the advanced exploration underway, with a particular focus on water quality in the Chukuni River and its surrounding ecosystems. Navigability concerns have not been expressed to date for watercourses or waterbodies within the Property. All communication has been tied to technical considerations related to ongoing work programs, and the potential cumulative impacts of industrial activity.

ANA and Great Bear Resources executed a Funding Agreement in October 2024. As part of this Funding Agreement ANA is conducting a Land Use and Occupancy Study. This study is in progress, and release of information is at the sole discretion of the ANA Lands Protection Team, and the respective leadership.

Northwestern Ontario Métis Community

Great Bear Resources continues engagement with NWOMC as part of the ongoing federal approval of the Great Bear Project. Navigability concerns have not been expressed to date for watercourses or waterbodies within the Property. Communications have been primarily tied to technical considerations related to ongoing work programs, and the potential cumulative impacts of industrial activity.

NWOMC and Great Bear Resources executed a Relationship Building and Capacity Agreement in November 2024. As part of this Agreement the NWOMC and its supporting technical team is currently conducting a Traditional Knowledge and Land Use Study, this study has been informed and takes into consideration anticipated Impact Statement needs as communicated by Great Bear.

General Public

Resource users, including the Pakwash Lake Owners Property Association, owners and local trappers, have raised comments regarding potential environmental impacts from the advanced exploration, and overall Project development. Key issues include the potential degradation of water quality in the Chukuni River and Pakwash Lake, risks to aquatic ecosystems, and cumulative impacts from regional industrial activities. Additionally, stakeholders have commented about potential disruptions to traditional land use, including trapping as well as the sustainability of fish and game resources critical to their livelihoods. Ongoing use and navigability concerns have not been raised by resource users, residents, trappers, or commercial harvesters outside of potential Project interaction with the Chukuni River and Pakwash Lake.

Table 1 Summary of Activities

Community	Date	Communication Type	Summary	Comments or Feedback Received
LSFN/WFN	23/06/09	In Person	Kinross meeting with WFN and LSFN regarding TK/TLRU and Potential Impacts on Rights and Interests, Technical Reviews, Community Meeting frequency, information for Traditional Foods, and VC's. Note that direct consideration to factors tied to Navigable Waters Act not referenced, but captured under board request for values information.	
LSFN/WFN	23/07/24	Email	Kinross Great Bear providing Dillion/SOAR responses to comments on the IPD and Environmental Baseline work on behalf of WFN and LSFN. Comments from the LSFN and WFN included topics on project location, government involvement, potential effects of the Great Bear Project, hydrology, surface water quality, ambient air quality, fish habitat, terrestrial environment, and geochemical environment. IPD comments also speak to community comments related to GBA+, alternatives, navigable waters, archeology, project operations, and overall layout.	
LSFN/WFN	23/08/31	Email	WFN and LSFN technical representatives' review of comment and response to Initial Project Description and baseline for the Great Bear Project. No comment was provided in the request to describe any involvement of Indigenous groups in the archaeological assessments and/or assessments on navigable waters conducted to-date, and any plans for their involvement in the future.	
LSFN/WFN	24/02/29	Email	Kinross providing supporting documentation for the Anishinaabe Led Impact Assessment Kick Off meeting for March 5th, along with an invitation to meet in person at the Kinross office. The documentation includes 15 separate items. These include 12 memorandums addressing valued components seeking to address current baseline program standing, predictive assessment overview, Indigenous knowledge requirements (including navigable waters information), and technical documentation anticipated to be available. In addition, the package includes separate memorandums speaking to Indigenous Knowledge requirements, overview of Valued Components, and a roadmap for consideration.	
LSFN/WFN	24/03/05	In Person	Kinross Great Bear and the technical team from WFN and LSFN meet to discuss the Anishinaabe Led Impact Assessment (ALIA). This process is being developed collaboratively with Dillon/Soar, ensuring it is shaped by community values rather than consultant-driven perspectives. The ALIA will be guided by Anishinaabe principles and governance, incorporating cultural values into the technical aspects of the environmental assessment. Current efforts focus on defining how communities will engage in decision-making, with Dillon/Soar consulting Elders and Chiefs before finalizing a vision and recommendations in April. Kinross has expressed interest in integrating ALIA findings into the Impact Statement (IS) document, recognizing the importance of Indigenous partnerships. Discussions on Valued Components (VCs) highlighted community concerns, particularly regarding water quality and cumulative effects. WFN emphasized the need to go beyond regulatory requirements and intends to collect its own data. Air quality, dust, and noise impacts are being studied, with WSP incorporating Indigenous Knowledge (IK) where possible. A burial site downstream, identified during the advanced exploration permit review, is a key concern, and WFN seeks confirmation that baseline studies will consider its significance. Fisheries and wildlife assessments are ongoing, with communities requesting a role in fish habitat offsetting plans. Kinross reaffirmed its commitment to working collaboratively on these issues and has expressed interest in receiving community input on fisheries compensation measures. Water management and navigation were central topics, with WSP analyzing potential flood effects and changes to flow in Dixie Creek. Kinross will fund a cumulative effects study on water quality, considering legacy mining impacts in the Red Lake/Trout River system, with technical support from WSP.	Community members raised questions about water withdrawal and its impact on navigation, which will be addressed through ongoing discussions. Transport Canada's key questions on navigable waters have been provided for community input, and Kinross is actively seeking information on watercourses and waterbodies used for navigation.
General Public	24/03/18	In Person	Kinross Great Bear provided an opportunity for public open house in Ear Falls. The event covered project updates, including location details, resource developments, and plans for 2024. Discussions included Tuzyks Road's public access status, Advanced Exploration (AEX) update, federal approval process, Valued Components (VCs), methodology, and alternatives for the Impact Statement. Future	The Pakwash Owner's Association raised issues regarding water discharge effects on wetlands, wildlife, and sediment impacts, requiring further discussion. Noted that they use the waterway in area.

			engagement was outlined, with commitments to open house events, public mail drops, and Kinross newsletters.	
NWOMC	24/03/19	Virtual	Meeting with NWOMC and RCC regarding the project. Kinross presented a slideshow on the Great Bear Project and discussed the project in depth. There was also a question period after the presentation. Presentation provided overview of federal process, and key items such as alternatives, valued components and assessment methodology. Regarding stakeholder mapping and identification of users NWOMC asked about water flow direction, and Kinross explained that it moves north to south via Dixie Creek into the Chukuni River, with some flow westward into Rice Lake before reaching the English River System. Kinross Great Bear raised the importance of information related to the usage of waterways especially related to navigation. NWOMC also raised concerns about reliance on diesel generators, questioning why the project was not integrating bulk transmission or renewable energy earlier. Kinross emphasized that diesel was a temporary solution for Advanced Exploration, with full hydroelectric infrastructure planned for the main project, though grid capacity remains a challenge.	
General Public	24/03/20	In Person	Kinross Great Bear provided an opportunity for public open house in Red Lake. The event covered project updates, including location details, resource developments, and plans for 2024. Discussions included Tuzyks Road's public access status, Advanced Exploration (AEX) update, Federal Approvals, Valued Components (VCs), methodology, and alternatives for the Impact Statement. Future engagement was outlined, with commitments to open house events, public mail drops, and Kinross newsletters. Kinross began the presentation by emphasizing its commitment to working respectfully within the area, fostering strong relationships with Indigenous communities, and recognizing their rights. The discussion covered project location, resource updates, and plans for 2024, including confirmation that Tuzyks Road remains a public access route. Updates were provided on the Advanced Exploration (AEX) project, alongside discussions on federal approvals for the Main Project. The presentation included an explanation of Valued Components (VCs), which are environmental, social, and economic elements considered critical in assessing project impacts. These include water quality, wildlife habitats, air emissions, cultural heritage, and socio-economic factors such as employment and business opportunities. Kinross outlined its approach to identifying and mitigating potential impacts on these components as part of the Impact Statement process. Further, Kinross Great Bear provided overview of regional stakeholders identified and that land use, or water use in the area is encouraged to be communicated. Future engagement was highlighted, with commitments to open house events, newsletters, and public mail drops to ensure the community remains informed.	
General Public	24/03/28	In Person	Meeting between Kinross and Pakwash Lake Owners Association regarding the Great Bear Project. The meeting addressed concerns surrounding the flow of water from the Chukuni River into the Pakwash River and answered further questions surrounding water quality and quantity, along with fisheries compensation.	Communicated that the PLOA utilizes the Chukuni River, and regional lakes as resource users.
LSFN/WFN	24/04/15	In Person	The EMC meeting on April 15, 2024, covered several key topics, including vegetation clearing for the AEX project, permitting updates, and engagement with Indigenous communities. Upcoming discussions and dialogue noted that the EMC will review major permits and presentation materials related to navigable waters.	
WFN	24/04/16	In Person	Kinross Great Bear provided a detailed overview of the current status of the Project. They noted that the AEX project represents a significant step toward a potential open-pit mine, with Kinross committed to maintaining regular engagement to keep communities informed. As 2024 is a critical year for setting up the project's success, discussions focused on key aspects such as water management, valued components, Indigenous considerations, and economic and environmental impacts. Regarding mine rock management, there are currently no plans for cyanide use, with arsenic identified as the primary metal leaching concern. Kinross assured that it follows international environmental standards and adheres to strict guidelines. Concerns about water quality were raised, particularly given past mining impacts, and Kinross emphasized its efforts to identify and protect valued ecosystem components, including wild rice, mint, blueberries, and fish. The importance of Indigenous ceremony in the project was acknowledged, with AEX serving as a starting point for incorporating cultural practices. The federal assessment review of the Great Bear Project covered the site layout, project phases, valued components, and assessment methodology, with a particular focus on navigable waters. A detailed analysis examined potential impacts on waterbodies and waterway accessibility. Kinross is seeking input from WFN community members to understand historical and present-day use of navigable waters, asking how the waterbodies were used in the past, what factors may have caused a decline in usage, and whether there is any current or future need for vessel access. This information will help shape the assessment process and ensure that traditional knowledge and Indigenous perspectives are incorporated into project planning. Additional concerns were raised about potential boom-and-bust economic effects, increased traffic, housing demands, and social challenges, including the risk of harmful substances entering the community. The scale of the project	

			necessitates long-term planning, ongoing discussions, and continued environmental and community impact assessments to address these concerns.	
LSFN/WFN	24/05/16	In Person	As part of the EMC dialogue Kinross Great Bear sought confirmation of water body usage under the Navigable Waters Act. WFN is not aware of any historical use, while LSFN requests the inclusion of Ken Anderson in the discussion. Shared Spirits will forward the request, and Kinross will send maps to WFN and LSFN for written responses.	WFN is not aware of any historical use, while LSFN requests the inclusion of Ken Anderson in the discussion. Shared Spirits will forward the request, and Kinross will send maps to WFN and LSFN for written responses.
LSFN/WFN	24/05/16	Email	Distribution of supporting documentation for May 16, 2025 EMC meeting. Key updates planned include the Navigable Waters Act and AEX permitting, with progress on the Closure Plan, tree removal permit, and temporary power permit. The sustainability report is available for review, along with updates on logistics and the status of the CEMP review, including scheduling for a technical review. Additionally, the Anishinaabe Led Impact Assessment is progressing, and preparations are underway for the WFN Resource Meeting, focusing on material supports and logistics, as well as a community meeting with LSFN.	
LSFN/WFN	24/05/27	Email	Kinross requesting information from LSFN and WFN regarding the utilization of waterways surrounding the Great Bear Resources project site in follow-up with the question posed at the EMC meeting. The input requested was surrounding the navigability of the water and looked at current and past usage, along for the reasons for usage or discontinuation, and the current feasibility of the use of these water bodies. As discussed in our last EMC meeting, to date, there has been no indication that any of the tributaries or creeks within our project boundary have been actively used by community members. However, I am reaching out once again to confirm whether any new data has emerged regarding the use of these waterways. I have attached a map for reference if needed and would request the focus of waterways to be within the black boundary shown. Specifically, I kindly request your input on the following: Current Usage: Are we aware of anyone who currently uses, vessels (such as canoes, kayaks, paddleboards, boats, or ships) on the bodies of water in question? Past Usage: Has anyone personally used a vessel on any of the bodies of water within our project boundary in the past? Reasons for Usage and or Discontinuation: If yes, could you provide insights into why you or others used vessels on these waterways previously? Additionally, if usage ceased, what were the reasons behind discontinuing vessel use? Current Feasibility: Considering the present circumstances, would you or others have a reason to use vessels on these water bodies today?	Direct request to LSFN/WFN for input on navigability of the waterways seeking current and past usage, along for the reasons for usage or discontinuation, and the current feasibility of the use of these water bodies.
LSFN/WFN	24/06/05	In Person	The ALIA meeting on June 5th, 2024, focused primarily on project updates and initial discussions surrounding the Kinross Great Bear Resources project, with a significant emphasis on water as a valued component and its impact on Indigenous communities. Great Bear reiterated information needs would be reissued as part of broader request for traditional knowledge discussed on June 5 which includes information related to navigable waters, waterway use, travel routes, and information as needed. Kinross provided updates on the project's internal feasibility study, site layout, and infrastructure plans. A key point of discussion was water management, where it was confirmed that the water treatment plant would be designed to handle a 100-year storm event. Additionally, there were specific inquiries about the potential impact on navigable waters, particularly Dixie Creek, GBR and ALIA team discussed obtain traditional based knowledge for the biophysical, and social needs (including surficial waterway use and recreation) for modelling inputs, how the project's design would protect it.	
LSFN/WFN	24/06/10	Email	Great Bear received a copy of a community briefing report that spoke to what the ALIA team had heard to date as part of the design of the ALIA. This report was prepared by a team of consultants hired by Lac Seul First Nation (LSFN) and Wabauskang First Nation (WFN) to assist with the development and implementation of an Anishinaabe Led Impact Assessment for Kinross Gold's	Concerns were raised about losing access to traditional foods because of biodiversity loss, specifically the loss of trout from mining as they are unable to reproduce in Red Lake, in addition to terrestrial ecosystem chage. The threat of

			proposed Great Bear Gold Project. Our team is comprised of Dillon Consulting, SOAR Professional Services, Sapo'nuk Sustainability, and professors from the University of Victoria.	mercury poisoning/ access to clean drinking water was also raised. Key community focus was raised to local bodies in Red Lake, Chukuni River, Trout Lake, Rice Lake, Pakwash Lake, Dixie Lake. No navigable concerns or usage of local waterbodies was presented as part of this report.
LSFN	24/06/17	In Person	Community based meeting in LSFN, collaboratively conducted with ALIA technical team support WFN and LSFN. Focus of community presentation was on overall Project, with key aspects on the community led process outlined by the ALIA leads. ALIA leads spoke to process going forward which is inclusive of land use aspects including use of rivers and waterbodies in the region. Importance of water was highlighted by several members.	
LSFN	24/06/18	In Person	Community based meeting in LSFN, collaboratively conducted with ALIA technical team support WFN and LSFN. Focus of community presentation was on overall Project, with key aspects on the community led process outlined by the ALIA leads. ALIA leads spoke to process going forward which is inclusive of land use aspects including use of rivers and waterbodies in the region. Importance of water was highlighted by several members.	
LSFN/WFN	24/06/24	Email	Distribution of a technical memo regarding the typical requirements of the typical requirements for indigenous knowledge in impact statements, which has been modified to align with the Draft TISG. GBR communication to EMC seeks input on the pending items related to TKLU information. GBR notes that we have identified and emphasized certain critical TK/TLRU inputs that are essential to adhere to the Impact Statement timeline. Navigable waters information included that relates to waterway, travel and access routes included as part of information request.	
LSFN/WFN	24/06/24	In Person	EMC meeting held with navigable waters information request raised. WFN and LSFN had no update available at this time, additional discussions will occur as part of the TK/TLU memorandum that will be issued by each of WFN and LSFN going forward as part of the ALIA process. WFN and LSFN noted that before and after figures to understand and discuss water management will be important and will be discussed further as the ALIA technical teams advance and feedback is provided. Both historical use, current use and future potential use should be considered (land and water) as part of this work.	No new information raised by WFN or LSFN. Noted by communities that additional discussions will occur as part of the TK/TLU memorandum that will be issued by each of WFN and LSFN going forward as part of the ALIA process. Both historical use, current use and future potential use will considered (land and water) as part of this work.
LSFN/WFN	24/07/02	Virtual	Distribution of the Kinross IS Collaborative Approach Presentation to HE working group as presented to Dillion/SOARS. ALIA technical working group meeting was focus on human environment needs for the assessment. GBR provided an overview of collaboration path between each of the teams. As part of continued dialogue GBR"IS_TK_Typical Requirements" memo (reissued on June 24, 2024). Highlighting when key information is requested from the ALIA team to inform the Kinross IS in 2024, to maintain the July 2025 submission schedule. As a key priority Kinross would like to receive information; or receive validation of key assumptions specific to modeling inputs in June/July (red and yellow highlights in memorandum, inclusive of considerations to navigable waters). GBR notes that they are open to a follow up meeting could be held to provide information, or a concordance table could be provided for input.	
NWOMC	24/07/23	Email	Kinross distributing the Project timelines and map to NWOMC. GBR also provides issuance of typical traditional knowledge requirements as part of ongoing dialogue. Navigable waters information include that relates to waterway, travel and access routes included as part of information request. Memorandum and supporting communication include timeline aspects for consideration by NWOMC, and MNO LRC Branch. Note that information pertaining to historical, current, and future land use will be captured as part of the Traditional Knowledge and Land Use Study currently underway by the NWOMC, and MNO LRC Branch.	
LSFN/WFN	24/07/31	In Person	July 31st EMC Meeting which discussed the CEMP, and CEMP Presentation, an update on the Archaeology Program, updates on permitting, and the ALIA team, and further discussed the mining working group, Traditional Knowledge, and Navigable Waters. Kinross Great Bear raise both Navigable Waters and traditional knowledge and land use as key items for validation and determining a pathway forward. Regarding navigable waters, a review of properties and its waterways is needed to determine historic and current usage. The absence of formal validation has raised questions about potential impacts, and Kinross has committed to resending relevant materials for clarity. This review will help ensure that any traditional waterway usage is considered in project planning. On traditional knowledge and land use, the discussion emphasized the need for a consultant team to support this work. The importance of incorporating traditional knowledge into decision-making was reiterated, and it was suggested that Gina and Karen be engaged in further conversations. A TK memo will be resent to them for review. This process aims to align project development with Indigenous perspectives and ensure that culturally significant areas are properly acknowledged and protected.	
LSFN/WFN	24/08/01	Email	GBR communication to EMC seeking input on the pending items related to TKLU information. Your collaboration in providing any available information within your communities would be invaluable in	

			preventing any schedule impacts during this period. GBR reissued traditional knowledge memorandum provided to the former ALIA team. GBR notes that we have identified and emphasized certain critical TK/TLRU inputs that are essential to adhere to the Impact Statement timeline. Navigable waters information included that relates to waterway, travel and access routes included as part of information request.	
LSFN/WFN	24/09/16	In Person	EMC meeting held on September 16, 2024. The meeting opened up with introductions for the new member and GBR noted that they are still working on permits and awaiting input on those submitted. Further conversation took place regarding the archaeological fieldwork and an upcoming site visit with the archaeologist in order to discuss findings and next steps. The archaeological program is at Stage 3, with findings presented at Wabauskang. A site visit to the Teardrop Road location as noted will be scheduled once the archaeologist's availability is confirmed, allowing community members, including elders, to engage directly. Discussions around the EfKj-1 site are ongoing, with decisions to be made regarding whether to preserve the site with a buffer or to proceed with excavation. The community's input, including elders and land users, is crucial to the final decision. LSFN and WFN noted they will be in touch regarding their availabilities for the site tour. WFN also requested Shapefiles for the TK assumptions made by GBR, which GBR noted will be distributed in order to assist in reviewing the assumptions. WFN noted that preliminary analysis revealed no sensitive values directly within the area, with a 200-meter buffer applied for protection. This is the beginning of the process, and further input from LSFN will be incorporated.	Noted that WFN has conducted an analysis on the Project footprint, WFN noted that to date they have not identified anything sensitive directly on this boundary of the Project site, WFN notes that they buffered this area by 200 m. Note that footprint is inclusive of waters bodies as detailed in the Navigable Waters application document.
LSFN/WFN	24/10/01	Email	ALIA team issued communication by Great Bear related to sending on the IS_TK_Typical Requirements memorandum and update on delivery timing of interim information. Navigable waters information included that relates to waterway, travel and access routes included as part of memorandum.	
LSFN/WFN	24/10/03	Email	LSFN technical support seeks memorandum and timeline sent in order to go over Great Bear needs and review timelines. Great Bear provides memorandum to LSFN ALIA team with request that LSFN query the current TK database. Navigable waters information included that relates to waterway, travel and access routes included as part of memorandum.	
LSFN/WFN	24/11/05 – 24/11/06	In Person	ALIA planning meeting between GBR, WFN, LSFN, and supporting technical staff. Overview of Great Bear Project provided to new technical leads, and detailed overview of technical requirements of IA. Information package and GBR inquired on approach to obtain and validate traditional based knowledge for the biophysical, and social needs (including surficial waterway use and recreation) for modelling inputs. GBR reiterated need for information and pathway affirmed by WFN and LSFN staff and technical needs on disclosure of information needs as detailed in previously issued memorandum. Participants raised questions about project safety, environmental risks, workforce composition, and Indigenous employment. Baseline studies were introduced, focusing on air, vibration, groundwater, surface water, fish habitats, and terrestrial environments, with an emphasis on integrating Traditional Knowledge (TK) including considerations to navigable waters and addressing community concerns such as trout populations and water quality.	
ANA	24/12/12	Letter	Great Bear outlining our offer of assistance to progress the items in the workplan and budget outlined in the Funding Agreement, between ANA and Great Bear effective September 1, 2024, noted that this includes a Land Use and Occupancy Study seeking to identify land use of ANA community members.	
LSFN/WFN	24/12/13	In Person	GBR and ALIA team met to review current priorities associate with the IA and ALIA. It is noted that the WFN is currently producing 8 maps to be shared with the community on Wednesday. Once the maps have been verified by the community, heat maps will be created to be shared with GBR. These maps will seek to address key assumptions including information that relates to waterway, travel and access routes. LSNF ALIA team now holds access the three databases available, LSFN team expects to have the information ready to provide to GBR by mid-January. They expect there may be some gaps and additional interviews may be required, specifically in Red Lake.	
ANA	24/01/08	Email	ANA legal counsel provides update to Great Bear on Land Use and Occupancy Study noting that the Lands Team has the work in hand and does not require assistance, the work has only just begun and will therefore take some time to complete.	
WFN	25/01/10	Email	WFN Resource Office issued traditional knowledge and land use information for GBR as part of IA and Project development. Report and mapping information is confidential in nature. WFN notes that access information is still in development. To date that no significant values within the footprint pertinent to the Navigable Waters Act identified to date. WFN does exercise its right to fish in the area, including those major waterbodies identified around the Project footprint.	WFN notes that access information is still in development. To date that no significant values within the footprint pertinent to the Navigable Waters Act identified to date. WFN does exercise its right to fish in the area, including those major waterbodies identified around the Project footprint.
LSFN/WFN	25/02/18 – 25/02/20	In Person	Kinross Great Bear held several community open houses focusing on fisheries compensation approach, regulatory alignment, and environmental considerations. WSP outlined fish compensation measures, discussing potential habitat impacts and mitigation strategies, including pond creation and habitat restoration.	Communicated across open house events that fishing and usage occur in main water bodies. No identified usage in smaller order streams, or Dixie Creek. Potential intersects in species of importance identified by community members.

LSFN	25/02/27	Letter	LSFN staff provided regional TKLUS study information for Kinross Great Bear, as part of ongoing review.	LSFN TKLUS report noted that fishing is a key aspect of Lac Seul First Nation identity and ongoing efforts to maintain way of life while stewarding the natural resources in the territory. In addition the historical importance of navigation of the English River system was highlighted. Participants reported past commercial fishing operations in several lakes throughout the territory. LSFN noted that many operated in various places throughout Lac Seul, with notable operations in Minnitaki Lake, Trout Lake, South Bay, and Lost Bay. Participants indicated that guiding for fishing occurred in Pakwash Lake, Little Bear Lake, Sunlight Lake, Seseganaga Lake, Kawaweogama Lake, Pelican Lake, and Lac Seul.
NWOMC	25/03/13	Virtual	The meeting focused on advancing collaboration between Kinross Great Bear and the Northwestern Ontario Métis Community (NWOMC), with key discussions centered on the Traditional Knowledge and Land Use Study, data sharing, and the Community Benefit Agreement (CBA). KnowHistory presented a structured study plan aligned with the project's Impact Assessment timeline, including research, interviews, and mapping, with milestone targets from February to June for completion of a TKLUS. Kinross Great Bear committed to providing an updated technical work plan and recognized the importance of integrating timely and accurate data. Both parties agreed to share interim findings cautiously, balancing the need for early insights with cultural and data integrity considerations, and committed to additional meetings and workshops as necessary.	
General Public	25/03/19	In Person	Great Bear staff held a public open house in Ear Falls. Great Bear staff provided updates on the Advanced Exploration (AEX) project. Kinross Great Bear shared an overview of the main project, highlighting its long-term potential and discussing key aspects such as the Tailings Management Facility, desulphurization processes, and mitigative measures including the Viggo Pit and water treatment systems. Workforce planning and comparisons to regional operations were also presented. In the environmental section, Kinross introduced the federal permitting process, shared stakeholder-informed advancements in tailings and dam technology, and offered a detailed breakdown of Valued Components (VCs) used in the assessment process. Notably, navigable waters were highlighted, with an overview of considerations and potential usage, as well as mitigation measures tied to watershed-based planning involving Dixie and Rice Lake. Great Bear provided mapping and presentations materials related to Navigable Waters, and invited comment via feedback form.	
General Public	25/03/20	In Person	Great Bear staff held a public open house in Ear Falls. Great Bear staff provided updates on the Advanced Exploration (AEX) project. Kinross Great Bear shared an overview of the main project, highlighting its long-term potential and discussing key aspects such as the Tailings Management Facility, desulphurization processes, and mitigative measures including the Viggo Pit and water treatment systems. Workforce planning and comparisons to regional operations were also presented. In the environmental section, Kinross introduced the federal permitting process, shared stakeholder-informed advancements in tailings and dam technology, and offered a detailed breakdown of Valued Components (VCs) used in the assessment process. Notably, navigable waters were highlighted, with an overview of considerations and potential usage, as well as mitigation measures tied to watershed-based planning involving Dixie and Rice Lake. Great Bear provided mapping and presentations materials related to Navigable Waters, and invited comment via feedback form.	
ANA	25/04/10	Email	Great Bear provides ANA with fisheries compensation and offsetting information seeking input on design and approach.	

Closing

Great Bear Resources continues to engage with relevant public stakeholders, and Indigenous communities identified consistent with guidance from Federal and Provincial agencies and the overall long-term needs of the Great Bear Project. At this junction, no use of lower stream order waterways which are proposed to be overprinted or potentially impacted by the Great Bear Project have been identified. Great Bear Resources affirms that the public and Indigenous users use the Chukuni River and the interconnected regional lake systems.

Kinross Great Bear / IAAC Key Issues Briefing Workplan Discussion

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [13]	Hybrid [0]
Location:	Virtual		
Time:	100 PM CT – 200 PM ET		
Date:	June 17, 2025		
Executive Summary:	Kinross Great Bear met with the Impact Assessment Agency of Canada (IAAC) to review the draft Key Issues Briefing Work Plan and align on next steps for regulatory submissions and Indigenous engagement. IAAC acknowledged receipt of the Work Plan and confirmed that it generally addresses key required sections. Both parties discussed the timeline and sequence for reviewing priority topics, notably the methylmercury study plan and modelling, which were agreed to be the immediate focus, with technical meetings targeted for early July. IAAC emphasized the importance of timely provision of materials — ideally two weeks in advance — to enable meaningful review and feedback from technical experts. Discussion covered the planned approach integrating and speaking to Indigenous engagement and the validation of information. IAAC requested clarity on whether meetings would be collective or community-specific meetings in follow up. Kinross Great Bear confirmed a preference to first engage with the Crown to align on technical details before broader discussions with Indigenous communities. IAAC supported this staged approach but stressed the need for transparent communications to avoid community concerns, especially regarding the confidentiality and validation of ALIA data. Key technical questions focused on how Indigenous knowledge and values, such as wild rice, moose, caribou, trapping, access, and toxicity exposure, will be integrated into the Impact Statement and considered in the context of cumulative effects. Kinross Great Bear confirmed that detailed input will be incorporated progressively and aligned with federal jurisdiction requirements. Additional topics included planning meetings for fish habitat effects and compensation measures, as well as for migratory birds. It was agreed that discussions on direct and indirect impacts on migratory birds could be advanced, given existing baseline data. Both parties acknowledged that mercury and methylmercury risk management remains the central technical issue requiring robust modelling and open dialogue. IAAC confirmed its commitment to expanding its review team and ensuring meetings are structured to address both priority and secondary issues efficiently. Key Words: Permitting, Mercury, Methylmercury, Project Infrastructure, Fish and Fish Habitat, Migratory Birds		

Client Name:	Kinross Gold Corporation	Project No:	
Key Actions:	a. Great Bear i. Kinross Great Bear to circulate updated detailed work plan. ii. Kinross Great Bear to coordinate with IAAC in scheduling initial kick off. iii. Kinross Great Bear to submit the water and modelling package by June 20, 2025. iv. Both parties to prioritize initial technical sessions on modelling and project description the first week of July and coordinate invites accordingly. b. IAAC i. IAAC to issue follow-up communication requesting confirmation on specifying expectations on meeting duration, advance material sharing, and calendar holds. ii. Both parties to prioritize initial technical sessions on modelling and project description the first week of July and coordinate invites accordingly.		

1. Attendance

Kinross Great Bear

- Mac Potter
- Connor Devereaux
- Aaron MacDonell

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Carter McCrae
- Ian Martin
- Elizabeth Chan
- Dietrich Maahs
- Kiera Smith
- Carla De Aquino
- Valerie Williams
- Christine Greenaway

2. Agenda and Attachments

No agenda provided for meeting.

Preliminary workplan as shared with IAAC:

KINROSS Great Bear

DRAFT GBR Key
Issues Draft Workplan

3. Minutes
    a. Introduction
        i. IAAC notes that they appreciate Kinross Great Bear for issuing the work plan.
    b. Work Plan Review
        i. IAAC notes that the workplan covers those key sections as required.
            1. General Comments
                a. IAAC inquires on the accuracy of the workplan as presented. Noting that Indigenous people's discussion is targeted for next week, and this is early.
                    i. Kinross Great Bear notes that we are open to shifting items around with priority on mercury study plan, and methylmercury modelling approach.
                    ii. Great Bear notes that it is our position to provide materials to IAAC for review one week in advance.
                    iii. IAAC notes we would like to ensure we provide materials in advance, and ensure that meetings are structured in a manner to be efficient.
                b. IAAC notes that methylmercury study plan and modelling review target for July is agreeable, noting that Indigenous people's approach is likely to soon.
                c. IAAC inquires on the approach to working with Indigenous peoples, whether we meet collaboratively or hold individual meetings with Indigenous communities on key items of discussion.
                    i. Kinross Great Bear notes that our preference is hold initial meetings with Crown, and holding dialogue with Indigenous peoples in follow. Kinross Great Bear would like to understand key items first then expand and confirm timing.
                    ii. IAAC is agreeable to holding tailored and focused meetings with Indigenous communities. IAAC notes that we would like to ensure that we are transparent to ensure that communities are not apprehensive.
                d. IAAC inquires if meetings will present information of ALIA as part of communication.
                    i. Kinross Great Bear confirms that this will not be presented at this time, Great Bear notes that information shared to date is confidential in nature. However, Great Bear notes that information will be validated with the Indigenous community in question.
                    ii. IAAC has no concerns with confidentiality considerations, our team is seeking that the information has been validated. IAAC notes that especially in the context of cumulative effects, and

significant streams IAAC would like to ensure we understand the input and comment context.

e. IAAC inquires on technical discussions and is there a plan to provide Indigenous communities capacity and review of work completed to date. IAAC notes the importance of comment integration, to seek to minimize comments that may be presented as technical roadblocks.
    i. Kinross Great Bear notes that all information and materials have been shared to date and will seek to address comments as part of the process.

ii. Detailed Review Questions
    1. Indigenous Peoples Meeting
        a. This meeting can be arranged, noting timeline aspects.
            i. Commitments and discussion and development of Impact Statement and alignment is our goal. Our team would like to understand the schedule and driving key messaging.
            ii. For the incorporation of information of dialogue and input from Indigenous communities.
                1. Focus on wild rice, includes discussion on how it will manage, impacts etc.
                2. Focus on moose, caribou and terrestrial wildlife, and dynamics for hunting and trapping (forestry dynamic, MAFA, impacts, displacement).
                    a. IAAC acknowledges caribou dynamic considering their potential recovery. How would the mine impact the population long-term, closing off issue. IAAC acknowledges that moose are the species of interest for harvest.
                3. Trapping and local harvest impact and displacement.
                4. Access considerations, and exposure aspects and toxicological content.
                    a. Boundary and constraints defined and clear.
                    b. Speaking to management, impacts, displacement.
            iii. Kinross Great Bear notes that the intent of workplan was to focus on items that fall under federal jurisdiction, opposed to direction received under planning phase communications.
                1. IAAC acknowledges this, and overall changes and effects to values is important to understand this.
                2. IAAC is seeking that Kinross Great Bear can speak to the story and understand key values of interest.
        b. Kinross Great Bear notes that key information can be pulled, however, this would be at a later date. The intent of the first update is to provide high-level update.
            i. IAAC notes that team is interested in understanding the overall ALIA process and findings.

1. Kinross Great Bear notes that their process is their owned, and the findings will provide the influence and will bolster the findings, however, this assessment is at their own purview and any decision is their own.
2. Kinross Great Bear notes that the ALIA will not be part of the submission, however, it is likely a statement or communication related to the findings will be provided to IAAC as part of submission.

ii. IAAC notes that having plan and input to inform federal submission is really important to understand, including those discussed.

2. Methylmercury Modelling and Water Management/Project Description
   a. IAAC inquired on review materials, what will be shared, and what will be required for dialogue. IAAC notes this is an important meeting to review assumptions, parameters, and other factors.
      i. Kinross Great Bear notes we acknowledge the concern, we note that the discussion will be technical in nature.
      ii. Great Bear notes that we will provide details and focus on 2-hour time period to ensure input is reflected is critical.
      iii. WSP notes that PD review will be high level to ensure that all reviewers are up to date on design.
         1. Kinross Great Bear reaffirms that we can provide detailed review of design in follow-up.
   b. IAAC agrees of critical nature and understanding all modelling inputs are aligned to ensure advancement in work to date. IAAC notes that timely information delivery will be important in ensuring efficient meeting.
3. Timelines
   a. IAAC notes that receipt of supplementary and deck submitted 1-week in advance it is expected that it will be Kinross presenting information to subject-matter expects, as they will have limited ability to review the materials. IAAC notes that feedback is likely to be received in follow up, useful and constructive feedback may be limited.
      i. Kinross Great Bear notes that collaborative and active feedback is our expectation, how much time would the Crown require.
         1. IAAC notes that additional time would be required, 2 weeks is the recommended time period in advanced.
   b. IAAC notes that this process is the first time this process has been undertaken.
   c. IAAC notes the importance of the mercury modelling dialogue, with follow up meetings booked to ensure information delivery in advance.
      i. Kinross Great Bear and IAAC to align the following meetings to structure and holds as required going forward.

ii. Immediate focus is modelling and project description, with technical meeting streams to get aligned, target for first week of July.

4. Fish Habitat and Compensation
    a. IAAC inquired on what would the intent be for this meeting.
        i. Kinross Great Bear notes that we would focus on background, immediate effects, and compensation approach.
            1. IAAC affirms that we can set first meeting.
5. Migratory Birds
    a. IAAC notes that timing can be advanced.
        i. WSP notes that we are splitting consideration to direct vs. indirect impacts to migratory birds. We can meet earlier on direct aspects. Noting that fall period would be limited if this was the case. The baseline has been collected; it is a matter of ensuring that the whole story is presented.
        ii. IAAC notes that timing restrictions, and communication of mitigative pathways provide subject matter experts clarity in the immediate.

iii. Closing

1. Kinross notes that central issue is going to be around mercury, and methylmercury in addition to the sensitivity of it. We are confident in our approach to other aspects, but we want to ensure alignment to hold fulsome dialogue.
    a. IAAC notes expansion of team to ensure smaller concerns are addressed.
2. IAAC to provide follow up communication email to Kinross Great Bear with key questions: length of meeting, when materials will be shared, and applying holds in calendars as soon as possible.
    a. Kinross Great Bear to issue more detailed schedule to IAAC.
    b. Assuming submission of water and modelling information on June 24, 2025, target meeting as soon as reasonable.
    c. Kinross Great Bear and IAAC to meet for kick off as soon as reasonable noting constraints of first week of July.
3. IAAC notes that invites need to be issued as soon as reasonable.

Meeting closed at 200 PM ET.

4. Action Items
    a. Great Bear
        i. Kinross Great Bear to circulate updated detailed work plan.
        ii. Kinross Great Bear to coordinate with IAAC in scheduling initial kick off.
        iii. Kinross Great Bear to submit the water and modelling package by June 20, 2025.
        iv. Both parties to prioritize initial technical sessions on modelling and project description the first week of July and coordinate invites accordingly.
    b. IAAC
        i. IAAC to issue follow-up communication requesting confirmation on specifying expectations on meeting duration, advance material sharing, and calendar holds.

ii. Both parties to prioritize initial technical sessions on modelling and project description the first week of July and coordinate invites accordingly.

Dated: June 17, 2025

MEMO

TO:	Aaron MacDonell and Connor Devereaux (Great Bear Resources)
FROM:	Christine Plourde, Karl Bresee and Amy Elliott (WSP)
CC:	Ashley Moncrief (Great Bear Resources)
	Sheila Daniel and Heather Lindsay (WSP)
SUBJECT:	Great Bear Project: Proposed Fish Bioaccumulation Module and Risk/Exposure Module Approach
WSP No.:	OMEMA2303
DATE:	June 27, 2025

1 INTRODUCTION

Great Bear Resources Ltd. (Great Bear Resources), a wholly owned subsidiary of Kinross Gold Corporation is proposing to develop, operate and eventually reclaim an underground and open pit gold mine (the Project) on the Great Bear Property (the Property), located approximately 25 kilometres (km) southeast of the Municipality of Red Lake, Ontario (see Figure 1). Local communities have raised concerns related to the potential for the Project to increase mercury (Hg) and methylmercury (MeHg) concentrations in surface water and fish. A companion document (HESL 2025) presents the Water module approach (i.e., methodology and assumptions) to model projected changes in MeHg concentrations in surface water associated with the Project (i.e., Project Case). This includes modelling of MeHg production associated with potential increased releases of sulphate from the Project (provided under a separate cover; see HESL 2025).

The objective of this technical memo is to expand on the overview provided to date and describe in greater detail the proposed study methodology for the Fish bioaccumulation and Risk/Exposure modules, including site-specific inputs and planned approaches for data analysis and modelling. This memo is prepared to facilitate regulator and intervenor technical review, questions and feedback, to gain a common understanding of the predictive models. Technically supported discussion is encouraged. Specifically, this memo:

- Presents the approach used in the Fish Bioaccumulation module to calculate site-specific surface water to fish mercury and methylmercury bioaccumulation factors (BAFs), which are used to predict future fish concentrations and Project Case risks in the Risk/Exposure module.
- Presents the proposed approach used in the Risk/Exposure module to model the human health risk (Hazard Quotients; HQ) associated with consumption of fish containing MeHg during three Assessment Cases: Baseline Case (using existing fish concentrations), Project Case (using predicted changes in fish concentrations related to the Project) and Application Case (using total predicted fish concentrations due to the Project – Project Case + Baseline Case). This memo focuses on methodology for modelling MeHg in the human health risk assessment (HHRA) as the primary chemical of concern related to fish consumption; however, the assessment intends to include inorganic mercury which was measured to be 16%, 40% and 32% of measured total mercury in Northern Pike, Walleye and Forage fish, respectively.
- In addition to methylmercury exposure via fish consumption which is the primary pathway of exposure to mercury in the environment (Clarkson and Magos 2006), there are other pathways of mercury exposure, such as through the consumption of surface water, consumption of traditional foods (e.g., moose meat and vegetation). Human exposure to mercury (i.e., inorganic mercury and

WSP Canada Inc
6925 Century Avenue, Suite 600
Mississauga, Ontario, Canada L5N 7K2
T+ 1-905-567-4444
wsp.com

methylmercury) in the environment is primarily driven by consumption of fish; however, other pathways of exposure can contribute and should be included in the multiple pathway HHRA to be appended to the Impact Statement (IS) to provide a quantitative risk estimate based on total exposure.

The memo provides a detailed description of the baseline site data and historical regional sample data from the province (MECP 2018) that are available to characterize Baseline Case risks in the HHRA and to calculate site-specific surface water to fish mercury and methylmercury bioaccumulation factors (BAFs).

2 DATA INPUTS AND ASSUMPTIONS

2.1 BASELINE FISH AND SURFACE WATER CONCENTRATION DATA

Site-specific fish tissue and surface water sampling has been completed annually from waterbodies within areas surrounding the proposed Project site since 2022. Due to the low baseline Hg concentrations measured in surface water during the initial programs, ultra-low level detection analysis methods were used during the surface water sampling programs since 2022. The multi-year fish sampling programs focused on analysing skinless, boneless left dorsal epaxial muscle tissue samples collected from Northern Pike, Walleye and forage fish (i.e., White Sucker and Yellow Perch) which were analyzed for total Hg and MeHg concentrations. In addition to the site-specific data, regional historical fish sample data (also skinless and boneless left dorsal epaxial muscle tissue samples from similar species) were also available from the province to help characterize Baseline Case total Hg concentrations in fish. These site-specific and regional MeHg in fish (i.e., Ontario Data Catalogue; MECP 2018) data were used in the HHRA to characterize the Baseline Case human health risks from consumption of fish.

2.2 SITE DATA SURFACE WATER

Measured surface water data were available from several waterbodies, creeks and rivers between 2021 to 2025 where fish were harvested. Table 1 presents a summary of the measured mercury concentrations in surface water of the Chukuni River, which is the primary receiving waterbody for effluent from the proposed Project. In addition, Table 2 presents a summary of the measured mercury concentrations in surface water in Dixie Creek. These data will be used to estimate human exposure and risk from direct consumption of surface water as a drinking water source.

Table 1: Measured Average Mercury Concentrations in Surface Water for Chukuni River [ng/L]

Location and Year	MeHg	THg	Percent MeHg [%]
Chukuni River -DS	0.055	1.22	5%
2022	0.044	1.19	4%
2023	0.058	1.18	5%
2024	0.057	1.28	4%
Chukuni River -FDP	0.090	1.87	5%
2022	0.037	1.15	3%
2023	0.046	0.94	5%
2024	0.138	2.70	5%
2025	0.032	0.65	5%
Chukuni River-REF	0.044	1.20	4%
2021	0.029	0.74	4%
2022	0.040	1.66	2%
2023	0.042	1.16	4%
2024	0.051	1.16	4%
2025	0.022	0.58	4%
Average	0.050	1.20	4.1%

KILLORAN LAKE
KEG LAKE
WILLANS LAKE
SULLY LAKE
GULLROCK LAKE
BOYDEN LAKE
SPARKS LAKE
MOOSE CREEK
TWO ISLAND LAKE
BUG RIVER
STONE LAKE
TUZYK'S ROAD
105
SNOWSHOE ROAD
CHUKUNI RIVER
CHUKUNI RIVER ROAD
CARIBOU CREEK
GENESSEE LAKE
UNNAMED WATERBODY 2
UNNAMED WATERCOURSE 3
UNNAMED WATERBODY 6
DIXIE LAKE ROAD
DIXIE CREEK
EAST LAKE
DIXIE LAKE
UNNAMED WATERCOURSE 7
HIEWALL LAKE
TOTE ROAD LAKE
PAKWASH LAKE

KEY MAP

SCALE 1:30,000,000

LEGEND

- GREAT BEAR PROJECT FOOTPRINT
- PROJECT AREA
- LOCAL STUDY AREA FOR HUMAN HEALTH AND ECOLOGICAL HEALTH RISK ASSESSMENT
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

0 1 2 4
1:105,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
3. SITE PLAN BASED ON INFORMATION PROVIDED BY GREAT BEAR RESOURCES, DECEMBER 2024 / JUNE 2025.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
PROJECT LOCATION AND LOCAL STUDY AREA

CONSULTANT

YYYY-MM-DD	2025-06-26
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
0 25mm

PATH: X:\CA\CAOAK\300-OAKMIS-FS1-Project\F2023\Projects\OMEMA2303_Kinross_Great_Bear_Env\07_GIS\Human_Health\AAC_Tech_Memo_June2024\MXD\Project_Loc and_LSA_1.mxd PRINTED ON: 2025-06-26 AT: 12:24:46 PM

Table 2: Measured Average Mercury Concentrations in Surface Water for Dixie Creek [ng/L]

Location and Year	MeHg	THg	Percent MeHg [%]
SW-03	0.148	5.39	3%
2022	0.126	3.16	4%
2023	0.088	2.41	4%
2024	0.220	8.12	3%
2025	0.031	0.62	5%
SW-04	0.068	1.86	4%
2024	0.070	1.87	4%
2025	0.064	1.82	4%
SW-08	0.195	2.91	7%
2022	0.095	3.30	3%
2023	0.340	3.70	9%
2024	0.101	2.46	4%
2025	0.064	1.72	4%
SW-08a	0.326	6.90	5%
2022	0.112	4.91	2%
2023	0.450	5.24	9%
2024	0.248	8.99	3%
2025	0.125	2.90	4%
SW-09	0.079	1.98	4%
2023	0.066	1.19	6%
2024	0.085	2.18	4%
2025	0.064	1.82	4%
SW-15	0.290	4.95	6%
2022	0.305	5.46	6%
2024	0.246	2.92	8%
Average	0.15	3.41	4.7%

2.3 SITE DATA FISH

Measured MeHg in fish (i.e., Northern Pike, Walleye and Forage Fish including Yellow Perch and White Sucker]) concentrations, fish length and MeHg in surface water concentration data were organized by sample location and year. These data were collected from waterbodies within the local study area (LSA) such as the following:

- Chukuni River.
- Dixie Creek.
- Genessee Lake.
- Unnamed Waterbody 2 and Unnamed Waterbody 6.
- Unnamed Watercourse 3 and Unnamed Watercourse 7.

Co-located fish and surface water data were available for the following years:

- Northern Pike (2022 to 2024).
- Walleye (2022 to 2023).
- Forage Fish (2022 to 2024).

In some instances, surface water data were not available for a specific waterbody and year when fish data were collected. In these circumstances the assessment used data from other years as it was assumed that annual average water concentrations within a waterbody did not materially fluctuate from year to year.

Fish data utilized were restricted to the following size ranges:

- Northern Pike restricted to 40 to 70 cm length (i.e., 55 +/- 15 cm).
- Walleye restricted to 28 to 52 cm length (i.e., 40 +/- 12 cm).
- Forage fish segregated into fish length less than 25 cm (i.e., length for consumption by ecological receptors) and greater than 25 cm (i.e., length for consumption by human receptors).

MeHg concentrations in fish increase with age and size (i.e., length and weight) due to biomagnification (EC 2003). Fish length was used to normalize Hg concentrations for comparison among years and waterbodies, to focus on fish sizes that people consume, and to align with fish size ranges used to develop provincial fish consumption advisories (MECP 2021a,b,c). The measured baseline fish concentration data were used to estimate the 95% upper confidence limit on the mean (95UCLM) using ProUCL Version 5.2 (US EPA 2022). The 95UCLM is a reasonable maximum exposure (RME) estimate and representative upper estimate of the annual average exposure point concentration that is expected for the evaluation of chronic exposure and risks from consumption of fish (US EPA 2001 and Health Canada 2024).

The results of this analysis for the recent (2022 to 2024) total Hg and MeHg results are presented in Table 3 for Northern Pike, Walleye and Forage fish (i.e., White Sucker and Yellow Perch) from Dixie Creek and Chukuni River near the Project. Attachment A presents the detailed sample data and ProUCL outputs. The analysis focused on Chukuni River and Dixie Creek as these two waterbodies will receive runoff and/or effluent from the proposed mine for one or more Project phases.

Table 3: Estimated 95UCLM and Measured (Average) Total Hg and MeHg Concentrations in Fish for the near Project Area (Sample Data from 2022 to 2024)

Fish Species	Mercury Species	Estimated 95UCLM and (Average) Concentration [mg/kg-WW]		
		All Fish	Chukuni River	Dixie Creek
Northern Pike (40 to 70 cm)	THg	0.39 (0.35)	0.38 (0.34)	0.52 (0.39)
	MeHg	0.27 (0.24)	0.33 (0.29)	0.31 (0.23)
Walleye (28 to 53 cm)	THg	0.46 (0.40)	0.48 (0.41)	NA
	MeHg	0.29 (0.26)	0.30 (0.26)	NA
Forage Fish (9.7 to 56 cm)	THg	0.12 (0.11)	0.15 (0.14)	0.14 (0.090)
	MeHg	0.087 (0.078)	0.11 (0.098)	0.084 (0.056)
Forage Fish (<25 cm)	THg	0.088 (0.071)	0.12 and **0.13**[(a)]	0.072 and **0.14**[(a)]
	MeHg	0.061 (0.050)	0.081 and **0.092**[(a)]	0.047 and **0.085**[(a)]
Forage Fish (>25 cm)	THg	0.17 (0.15)	0.18 (0.15)	NA
	MeHg	0.13 (0.098)	0.14 (0.10)	NA

Notes:
Distribution model assumed for 95UCLM values Normal, Gamma or Log-Normal.
NA indicates not available.
Values within brackets represent means, while values outside of brackets represent 95 UCLMs.
(a) Sample size low (i.e., n=3), 95UCLM not calculated and presents average concentration and Maximum concentration.

2.4 REGIONAL DATA

Regional fish concentration data from waterbodies downstream of the proposed Project (i.e., Pakwash Lake to the English River adjacent to the community of Asubpeeschoseewagong Netum Anishinabek) were characterized for the Baseline Case in the HHRA. These water bodies were divided into 23 segments for the purposes of predictive MeHg water quality modelling, which are described in Table 4 and illustrated in Figure 2.

The analysis of the regional data aimed to acquire relevant fish sample data from the latest sampling periods (year 2010 to present) where available. For Oak Lake and Maynard Lake, the most recent sampling data from the year 2006 was used to characterize Baseline Case fish concentrations. The HHRA assumes that these measured fish concentrations from the 7 sample locations are adequate to characterize measured fish concentrations for the Baseline Case, as it is assumed fish will migrate throughout the system, except where barriers are present.

Table 4: Availability of Regional Fish Tissue Hg Concentrations from within the Modelling Segments used in the Predictive MeHg Water Quality Model

Segment	Waterbody	Description of Available Regional Fish Sample Data
1	Chukuni River	Used site-specific sample data from 2022 to 2024
2	Pakwash Lake	Historical sample data from 2014 available for Northern Pike and Walleye
3	Chukuni River	Not directly available
4	Camping Lake	Not directly available
5	English River	Not directly available
6	English River	Not directly available
7	Barnston Lake	Not directly available
8	Wegg Lake	Historical sample data from 2013 available for Northern Pike and Walleye
9	English River	Not directly available
10	Goose Lake	Not directly available
11	English River	Not directly available
12	Wilcox Lake	Not directly available
13	English River	Not directly available
14	Oak Lake	Historical sample data from 2006 available for Northern Pike, Walleye and Whitefish
15	English River	Not directly available
16	Maynard Lake	Historical sample data from 2006 available for Northern Pike, Walleye and Whitefish
17	English River	Not directly available
18	Tide Lake	Historical sample data from 2014 available for Northern Pike and Walleye
19	English River	Not directly available
20	Ball Lake	Historical sample data from 2010 to 2016 available for Northern Pike, Walleye and Whitefish
21	English River	Not directly available
22	Indian Lake	Historical sample data from 2014 available for Northern Pike, Walleye and Whitefish
23	English River	Not directly available

Table 5 presents the estimated 95UCLM and mean concentrations for these historical regional sampling locations. Attachment B presents the detailed sample data and ProUCL outputs for regional data.

Table 5: Estimated 95UCLM and Measured (Average) Fish Concentrations for the Downstream Segments of the Project Area from Ontario Regional Database

Estimated 95UCLM and (Average) Baseline Total Mercury and Methylmercury in Fish Concentrations [mg/kg-WW] from Waterbody Segments									
Fish Species	**Mercury Species**	**Pakwash (2014)**	**Wegg Lake (2013)**	**Oak Lake (2006)**	**Maynard Lake (2006)**	**Tide Lake (2014)**	**Ball Lake North Basin (2010-2016)**	**Ball Lake South Basin (2010-2016)**	**Indian Lake (2014)**
Northern Pike (40 to 70 cm)	THg	0.304 (0.274)	0.559 (0.453)	0.844 (0.676)	1.216 (0.945)	0.602 (0.500)	0.854 (0.693)	1.696 (1.462)	0.684 (0.522)
	MeHg[(b)]	0.26	0.47	0.71	1.02	0.51	0.72	1.42	0.57
Walleye (28 to 53 cm)	THg	0.882 (0.640)	0.443 (0.400)	0.608 (0.538)	0.726 (0.582)	0.772 (0.573)	0.644 (0.583)	0.935 (0.855)	0.581 (0.503)
	MeHg[(b)]	0.53	0.27	0.36	0.44	0.46	0.39	0.56	0.35
Forage Fish (All Lengths)	THg	NA	NA	0.203 (0.178)	0.116 (0.104)	NA	0.191 (0.174)	0.232 (0.211)	0.259 (0.223)
	MeHg[(b)]	NA	NA	0.14	0.079		0.13	0.16	0.18
Forage Fish (<25 cm)	THg	NA	NA	NA	0.08[(a)]	NA	NA	NA	NA
	MeHg[(b)]	NA	NA	NA	0.054	NA	NA	NA	NA
Forage Fish (>25 cm)	THg	NA	NA	0.203 (0.178)	0.118 (0.105)	NA	0.191 (0.174)	0.232 (0.211)	0.259 (0.223)
	MeHg[(b)]	NA	NA	0.14	0.080	NA	0.13	0.16	0.18

Notes:
Distribution model assumed for 95UCLM values Normal or Gamma; NA indicates not available.
Values within brackets represent means, while values outside of brackets represent 95 UCLMs.
(a) Value for small forage fish at Maynard Lake has only 1 sample, so represents a maximum.
(b) Estimated assuming MeHg was 84%, 60% and 68% of measured THg in site-specific Northern Pike, Walleye and Forage fish, respectively.

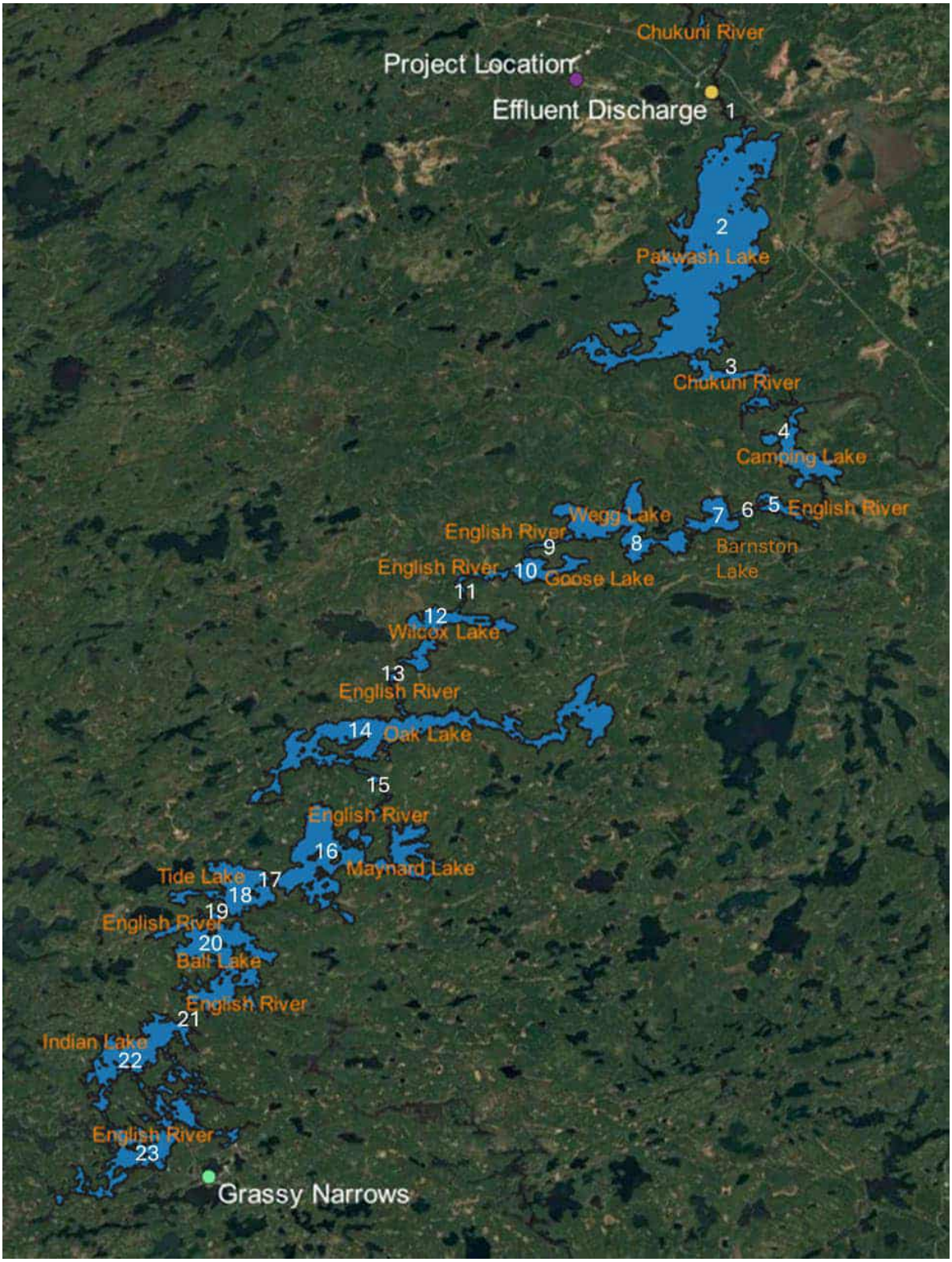


Figure 1: Segments used in the Predictive MeHg Water Quality Model

3 FISH BIOACCUMULATION MODULE MODELLING APPROACH

3.1 SITE-SPECIFIC BAFS

The measured site-specific MeHg concentration data for fish and surface water from the Chukuni River (2022 to 2024) were used to calculate site-specific BAFs to be used to predict the potential increase in changes in fish tissue concentrations associated with changes in water quality predicted in the water quality modelling (HESL 2025). The calculated BAFs were based on the measured annual mean fish and surface water concentrations at three locations along the Chukuni River (i.e., sample locations CR-REF, CR_FDP and CR-DS), which is the receiver of treated effluent from the mine. These sample locations are presented in Figure 3 for reference and the calculated site-specific BAFs are presented in Table 6. Attachment A presents a summary of the sample data used to calculate the site-specific BAFs. A literature search was also completed to determine if the calculated site-specific BAFs were of comparable magnitude to those reported in other literature sources, which are presented in Table 7. The range in fish BAFs reported in literature are in alignment with the calculated site-specific BAFs, supporting their use in the HHRA. The US EPA (1997) noted that the mean BAFs (i.e., derived from field studies) are believed to be better estimates of mercury bioaccumulation in natural systems than values derived from laboratory studies.

Table 6: Summary of Calculated Site-Specific Surface Water to Fish Mercury BAFs for Total Mercury (THg) and MeHg) for the Chukuni River

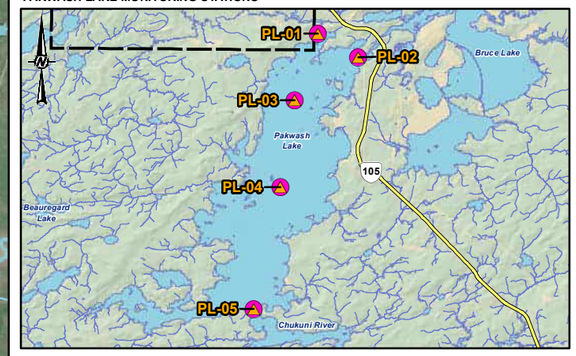
Fish Sample	BAF THg [L/kg-WW]	BAF MeHg [L/kg-WW]	Description
Northern Pike (40 to 70 cm)	$2.70 \times 10^{+5}$	$5.65 \times 10^{+6}$	Based on paired samples from CR-REF (2022 and 2023); CR-DS (2023) and CR-FDP (2023) for a total of 8 data points.
Walleye (28 to 53 cm)	$3.46 \times 10^{+5}$	$5.84 \times 10^{+6}$	Based on paired samples from CR-REF (2022 and 2023); CR-DS (2023) and CR-FDP (2023) for a total of 4 data points.
Forage Fish (>25 cm)	$1.30 \times 10^{+5}$	$2.10 \times 10^{+6}$	Based on paired samples from CR-REF (2023); CR-DS (2022 to 2024) and CR-FDP (2022 to 2024) for a total of 7 data points.

Table 7: Summary of MeHg BAFs from Literature Studies

Source	Fish Species	MeHg BAF [L/kg-WW]
EC 2003	Yellow Perch	$1.46 \times 10^{+6}$
	Juvenile Bass	$1.93 \times 10^{+6}$
Calder et al. 2016	Brook trout	$6.31 \times 10^{+6}$
US EPA (1997) cited in EC (2003)	Level 3 Fish	$1.60 \times 10^{+6}$
	Level 4 Fish	$6.80 \times 10^{+6}$

GRL-03
GULLROCK LAKE
TWO ISLAND LAKE
GRL-02
GRL-01
UNNAMED WATERCOURSE 10
MOOSE CREEK
SW-GL01
SW-18
UNNAMED WATERCOURSE 12
SW-GL02
STONE LAKE
SW-17
105
UNNAMED WATERCOURSE 8
CR-REF
UNNAMED WATERBODY 3
TUZYK'S ROAD
SW-16
UNNAMED WATERBODY 4
SW-TR
UNNAMED WATERCOURSE 6B
UNNAMED WATERBODY 7
SW-12
SW-GL
SW-05
SW-13
GENESSEE LAKE
CARIBOU CREEK
UNNAMED WATERBODY 1
UNNAMED WATERCOURSE 3
SW-01
UNNAMED WATERCOURSE 11
UNNAMED WATERBODY 2
SW-07
SW-06
SW-11
SW-12b
UNNAMED WATERCOURSE 6C
SW-04
SW-08a
UNNAMED WATERCOURSE 1
CR-FDP
SW-03
SW-02
SW-14
UNNAMED WATERCOURSE 6D
SW-08
UNNAMED WATERBODY 6
CHUKUNI RIVER
UNNAMED WATERCOURSE 5
SW-09
DIXIE CREEK
GL-Trib
UNNAMED WATERCOURSE 6
SW-15
DC-US
SW-10
CR-DS
DIXIE LAKE ROAD
PL-01
DIXIE LAKE
UNNAMED WATERCOURSE 7
DL-Ref
HIEWALL LAKE
TOTE ROAD LAKE
PAKWASH LAKE

PAKWASH LAKE MONITORING STATIONS



SCALE 1:350,000

LEGEND

- SURFACE WATER QUALITY MONITORING STATION
- METHLYMERCURY AND SUPPLEMENTAL ULTRALOW MERCURY MONITORING STATION
- PROPERTY BOUNDARY
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

0 1 2 4
1:70,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. AERIAL IMAGERY PROVIDED BY GREAT BEAR RESOURCES (SCENE DATE: SEPTEMBER 2022).
3. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
SURFACE WATER AND/OR FISH SAMPLING LOCATIONS

CONSULTANT
wsp

YYYY-MM-DD	2025-06-26
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
0 25mm

PATH: X:\CA\CAOAK300-OAKMIS-FS1-Projects\P-2023\Projects\OMEM\2303_Kinross_Great_Bear_Env\07_GIS\Human_Health\AAC_Tech_Memo_June2024\MXD\Baseline_SW_Monitoring_Locs_1.mxd PRINTED ON: 2025-06-26 AT: 12:23:01 PM

3.2 RISK/EXPOSURE MODULE - HHRA MODEL DESCRIPTION FOR MEHG EXPOSURE FROM FISH CONSUMPTION

The results of the MeHg modelling in surface water (Hutchinson 2025) will predict water quality changes with respect to MeHg in all model segments (i.e., 1 to 23). The aim of this surface water quality modeling is to predict how much the Project may stimulate MeHg in sediment of regulated effluent receiving waters, via a marginal increase in sulphate loading over background conditions.

These predicted changes in surface water quality can be used to predict changes in fish concentrations, using the site-specific BAFs presented above.

The following model is proposed for the HHRA for MeHg exposure from fish consumption:

$$C_{fish-base+proj} = C_{fish-base} + \left(\Delta C_{sw-MeHg} \times BAF_{fish}\right) \qquad \textit{Equation 1}$$

Where

$C_{fish-base+proj}$ = Projected total fish MeHg concentration from Project [mg/kg-WW]
$C_{fish-base}$ = Measured MeHg concentration in fish at Baseline [mg/kg-WW]
$\Delta C_{sw-meHg}$ = Projected change in MeHg in surface water concentration [mg/L]
BAF_{fish} = Site-specific fish BAF for MeHg [L/kg-WW]

The HHRA will model human health risks from consumption of MeHg containing fish for each segment and the following assessment cases:

- Baseline Case: representing total risk (HQ) from consumption of fish at baseline concentrations, using measured MeHg in fish concentrations (represented by the estimated 95UCLM of the available fish data where sufficient data is available, or by the maximum concentration where data is limited).
- Project Case: representing incremental risk (HQ) from consumption of fish containing MeHg concentrations due to the Project. Based on the change in predicted MeHg in fish concentrations using site-specific fish BAFs and surface water MeHg concentrations
  - $\left(\Delta C_{sw-MeHg} \times BAF_{fish}\right)$ in *Equation 1* above.
- Application Case: representing total predicted risk (HQ) from consumption of fish due to the Project (Project plus Baseline). Based on the total predicted MeHg concentration in fish due to the Project ($C_{fish-base+proj}$).

3.3 FISH CONSUMPTION RATES

The HHRA will use fish consumption rates defined by Chan et al (2014) for the average and heavy consumer only in Ecozone 1, which are presented in Table 8. The Indigenous community at Asubpeeschoseewagong Netum Anishinabek was included in the food consumption survey for Ecozone 1 (i.e., Boreal Shield / Subarctic) and were assumed to be representative for the HHRA. Table 8 does not present consumption that will be assumed in the HHRA because the Chan et al. (2014) study only surveyed adults. As such, the toddler consumption rates will use the toddler-to-adult consumption ratio of 0.5 recommended by Health Canada (2007). The ratio of 0.5 is based on the ratio of toddler and adult subsistence consumption rate of 20 and 40 grams/day, which indicates that the toddler consumption rate is 50% of the adult consumption rate (Health Canada 2007).

Table 8: Estimates of Indigenous Fish Consumption Rates Proposed for the HHRA

Fish	Consumer	Consumption Rate [grams/day]		
		Women	Men	Total
Walleye	Average	10.32	26.53	18.15
	Heavy	37.48	116.4	100.6
Forage Fish (Lake Whitefish)	Average	9.84	17.27	13.18
	Heavy	37.7	85.51	62.47
Northern Pike	Average	10.15	12.21	11.43
	Heavy	37.70	40.24	40.24

3.4 HAZARD QUOTIENTS

The HHRA proposes the following equation to calculate methylmercury hazard quotient (HQ) values:

$$HQ = \frac{\frac{\sum IR_i \times C_j}{BW_i}}{TRV_{MeHg}} \qquad \textit{Equation 2}$$

Where

HQ = Hazard quotient (unitless)

IR_i = Ingestion rate of i^{th} receptor life stage (toddler, adult female and Male; kg/day)

C_{fish} = Concentration in j^{th} fish (Walleye, Pike and Forage fish; mg/kg-WW)

BW_i = Body weight of i^{th} receptor life stage (kg)

TRV = Oral toxicity reference value for methylmercury (mg/kg/day)

The HHRA will use the following toxicity reference values to calculate HQ values based on predicted MeHg exposures (Health Canada 2021):

- An oral toxicity reference value of 2.0E-04 mg/kg/day used for toddlers and females of childbearing age.
- An oral toxicity reference value of 4.7E-04 mg/kg/day used for adult males and the general population.

The predicted MeHg HQs will be compared to baseline HQ, to evaluate the potential additional risk associated with Project effluent.

4 CLOSING

Thank you for your attention and should you have any questions of concerns we are available at your convenience to discuss any comments or questions you may have.

Christine Plourde, FEC, P.Eng.
Principal Risk Assessor

Karl Bresee, B.Sc, PBD, P.Bio
Senior Risk Assessor

5 REFERENCES

- Calder RS, Schartup AT, Li M, Valberg AP, Balcom PH, Sunderland EM. Future Impacts of Hydroelectric Power Development on Methylmercury Exposures of Canadian Indigenous Communities. Environ Sci Technol. 2016 Dec 6;50(23):13115-13122.
- Chan Laurie, Olivier Receveur, Malek Batal, William David, Harold Schwartz, Amy Ing, Karen Fediuk, Andrew Black and Constantine Tikhonov. First Nations Food, Nutrition and Environment Study (FNFNES): Results from Ontario (2011/2012). Ottawa: University of Ottawa, 2014.
- Clarkson, TW and Magos L. 2006. The Toxicology of Mercury and its Chemical Compounds. Crit Rev Toxicol, 2006 Sep; 36(8): Pp. 609-662.
- Environment Canada (EC). 2003. Canadian Water Quality Guidelines for the Protection of Aquatic Life: Inorganic Mercury and Methylmercury. Report No. 1-7. Scientific Supporting Document. ISBN 0-662-34154-6. July 2003
- Health Canada. 2007. Human Health Risk Assessment of Mercury in Fish and Health Benefits of Fish Consumption. Bureau of Chemical Safety Food Directorate Health Products and Food Branch. ISBN: 978-0-662-47023-6. March 2007.
- Health Canada. 2021. Federal Contaminated Site Risk Assessment in Canada: Toxicological Reference Values (TRVs). Version 3.0. ISBN: 978-0-660-36723-1. March 2021.
- Health Canada. 2024. Federal Contaminated Site Risk Assessment in Canada: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA)VERSION 4.0. ISBN: 978-0-660-68497-0. March 2024.
- Hutchinson Environmental Sciences Ltd. (HESL). 2025. Technical Memorandum. Estimation of [MeHg] from SO4 loading – FINAL for discussion. From: Joel Harrison and David Leeder. Dated July 2025.
- Ministry of Environment Conservation and Parks (MECP). 2018. Ontario data Catalogue Fish Contaminants. Fish Contaminants - Dataset - Ontario Data Catalogue
- Ministry of Environment Conservation and Parks (MECP). 2021a. Fish Consumption Advisory for Grassy Narrows Lake. Available at: https://www.ontario.ca/page/fish-consumption-report?id=50099359
- Ministry of Environment Conservation and Parks (MECP). 2021b. Fish Consumption Advisory for Pakwash Lake. Available at: https://www.ontario.ca/page/fish-consumption-report?id=50459330
- Ministry of Environment Conservation and Parks (MECP). 2021c. Fish Consumption Advisory for Gullrock Lake. Available at: https://www.ontario.ca/page/fish-consumption-report?id=50589340
- Philibert A., Fillion, M. and D. Mergler. 2020. Mercury exposure and premature mortality in the Grassy Narrows First Nation community: a retrospective longitudinal study. The Lancet Planetary Health, Volume 4, Issue 4, Pg. 141 – 148.
- United States Environmental Protection Agency (US EPA). 1997. Mercury Study Report to Congress, Volume VII: Characterization of Human Health and Wildlife Risks from Mercury Exposure in the United States. EPA-452/R-97-009. Office of Air Quality Planning and Standards and Office of Research and Development, U.S. EPA, Washington, DC.
- United States Environmental Protection Agency (US EPA). 2001. Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment. EPA 540-R-02-002. December 2001.
- United States Environmental Protection Agency (US EPA). 2022. ProUCL Software (version 5.2.0). Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. Neptune and Company Incorporated. June 2022.

Attachment A

Detailed Sample Data and ProUCL Outputs (Local Data)

When MeHg/THg ratio >100% assumed equivalent to 100%

All Fish Sample Data									
	Northern Pike [mg/kg-WW]			Walleye [mg/kg-WW]			Forage Fish [mg/kg-WW]		
Parameter	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg
Average	0.35	0.24	69%	0.40	0.26	64%	0.11	0.078	71%
StDev	0.17	0.12	21%	0.16	0.11	20%	0.06	0.057	21%
	Northern Pike [mg/kg-WW]			Walleye [mg/kg-WW]			Forage Fish [mg/kg-WW]		
	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg
	0.204	0.154	75%	0.431	0.22	51%	0.163	0.194	100%
	0.172	0.145	84%	0.256	0.324	100%	0.249	0.333	100%
	0.32	0.397	100%	0.287	0.243	85%	0.233	0.0819	35%
	0.226	0.309	100%	0.355	0.236	66%	0.0654	0.0801	100%
	0.2	0.259	100%	0.372	0.252	68%	0.146	0.156	100%
	0.411	0.401	98%	0.477	0.446	94%	0.0721	0.0501	69%
	0.332	0.277	83%	0.305	0.12	39%	0.0912	0.065	71%
	0.312	0.22	71%	0.367	0.129	35%	0.0494	0.0562	100%
	0.481	0.39	81%	0.339	0.149	44%	0.0518	0.0515	99%
	0.301	0.174	58%	0.207	0.0865	42%	0.0552	0.0396	72%
	0.608	0.244	40%	0.857	0.426	50%	0.056	0.0359	64%
	0.293	0.27	92%	0.755	0.39	52%	0.0881	0.0603	68%
	0.44	0.401	91%	0.624	0.279	45%	0.0372	0.0327	88%
	0.329	0.195	59%	0.318	0.158	50%	0.0339	0.0249	73%
	0.317	0.33	100%	0.504	0.23	46%	0.037	0.0233	63%
	0.458	0.406	89%	0.31	0.118	38%	0.126	0.0825	65%
	0.246	0.173	70%	0.282	0.3	100%	0.114	0.0662	58%
	0.42	0.442	100%	0.796	0.498	63%	0.194	0.106	55%
	0.37	0.386	100%	0.409	0.358	88%	0.0957	0.0536	56%
	0.316	0.296	94%	0.304	0.16	53%	0.18	0.0772	43%
	0.21	0.118	56%	0.239	0.169	71%	0.075	0.0784	100%
	0.301	0.144	48%	0.338	0.21	62%	0.0509	0.0248	49%
	0.278	0.102	37%	0.436	0.374	86%	0.0631	0.03	48%
	0.482	0.206	43%	0.352	0.321	91%	0.0731	0.0262	36%
	0.39	0.214	55%	0.24	0.182	76%	0.0714	0.0313	44%
	0.306	0.393	100%	0.415	0.266	64%	0.0999	0.0312	31%
	0.813	0.416	51%	0.51	0.379	74%	0.14	0.0735	53%
	0.374	0.232	62%	0.285	0.259	91%	0.0946	0.0445	47%
	0.255	0.305	100%	0.415	0.245	59%	0.164	0.0931	57%
	0.195	0.156	80%	0.315	0.152	48%	0.094	0.0446	47%
	0.0652	0.0636	98%				0.0681	0.0366	54%
	0.154	0.122	79%				0.0284	0.025	88%
	0.161	0.129	80%				0.243	0.204	84%
	0.67	0.494	74%				0.111	0.08	72%
	0.457	0.33	72%				0.203	0.151	74%
	0.389	0.225	58%				0.151	0.102	68%
	0.873	0.576	66%				0.131	0.13	99%
	0.645	0.318	49%				0.13	0.121	93%
	0.209	0.12	57%				0.0639	0.0419	66%
	0.58	0.278	48%				0.0781	0.0528	68%
	0.373	0.17	46%				0.0483	0.0187	39%
	0.639	0.323	51%				0.0784	0.0777	99%
	0.245	0.117	48%				0.0871	0.041	47%
	0.236	0.106	45%				0.137	0.0602	44%
	0.26	0.109	42%				0.134	0.0807	60%
	0.262	0.104	40%				0.238	0.106	45%
	0.211	0.0976	46%				0.133	0.0451	34%
	0.244	0.103	42%				0.238	0.0786	33%
	0.193	0.104	54%				0.249	0.0835	34%
	0.214	0.0948	44%				0.122	0.0455	37%
	0.369	0.212	57%				0.146	0.0547	37%
	0.325	0.202	62%				0.0926	0.0864	93%
							0.103	0.0694	67%
							0.16	0.151	94%
							0.128	0.127	99%
							0.144	0.0902	63%
							0.119	0.11	92%
							0.116	0.11	95%
							0.124	0.0999	81%
							0.299	0.197	66%
							0.242	0.227	94%
							0.0161	0.0144	89%
							0.0338	0.0292	86%

When MeHg/THg ratio >100% assumed equivalent to 100%

All Fish Sample Data									
	Northern Pike [mg/kg-WW]			Walleye [mg/kg-WW]			Forage Fish [mg/kg-WW]		
Parameter	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg
Average	0.35	0.24	69%	0.40	0.26	64%	0.11	0.078	71%
StDev	0.17	0.12	21%	0.16	0.11	20%	0.06	0.057	21%
	Northern Pike [mg/kg-WW]			Walleye [mg/kg-WW]			Forage Fish [mg/kg-WW]		
	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg	Mercury	Methylmercury	Ratio MeHg/THg
							0.119	0.0793	67%
							0.0832	0.0652	78%
							0.0725	0.0572	79%
							0.0711	0.0535	75%
							0.0614	0.0458	75%
							0.0795	0.0643	81%
							0.0579	0.036	62%
							0.0508	0.0413	81%
							0.064	0.0437	68%
							0.0609	0.0439	72%
							0.0371	0.0268	72%
							0.0491	0.0184	37%
							0.0848	0.0464	55%
							0.0458	0.028	61%
							0.0639	0.0258	40%
							0.0578	0.0415	72%
							0.036	0.0248	69%
							0.0789	0.0552	70%
							0.0454	0.0264	58%
							0.0386	0.0278	72%
							0.0605	0.035	58%
							0.0783	0.08	100%
							0.0409	0.03	73%
							0.0641	0.0539	84%
							0.124	0.115	93%
							0.142	0.133	94%
							0.11	0.116	100%
							0.323	0.269	83%
							0.0723	0.0733	100%
							0.136	0.138	100%
							0.222	0.197	89%
							0.165	0.164	99%
							0.0893	0.0735	82%
							0.112	0.125	100%

Attachment B

Detailed Sample Data and ProUCL Outputs (Regional Data)

Pakwash Lake Mercury	Pakwash Lake Detection	Wegg Lake Mercury	Wegg Lake Detection	Oak Lake Mercury	Oak Lake Detection	Maynard Lake Mercury	Maynard Lake Detection	Tide Lake Mercury	Tide Lake Detection	Ball Lake North Basin Mercury	Ball Lake North Basin Detection	Ball Lake South Basin Mercury	Ball Lake South Basin Detection	Indian Lake Mercury	Indian Lake Detection
[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]	
Northern Pike		Northern Pike		Northern Pike		Northern Pike		Northern Pike		Northern Pike		Northern Pike		Northern Pike	
0.24	1	0.76	1	0.47	1	0.2	1	0.58	1	0.67	1	1.7	1	0.85	1
0.29	1	0.87	1	0.94	1	0.92	1	0.5	1	0.57	1	2.6	1	0.4	1
0.32	1	0.58	1	0.22	1	2.8	1	0.54	1	0.41	1	1.3	1	0.78	1
0.26	1	0.32	1	0.57	1	1.2	1	0.38	1	2	1	0.95	1	0.7	1
0.26	1	0.25	1	0.83	1	1.8	1			0.79	1	1.8	1	0.29	1
		0.51	1	0.99	1	0.75	1			0.42	1	2.2	1	0.64	1
		0.31	1	0.97	1	0.21	1			0.31	1	1.7	1	0.58	1
		0.5	1	1.1	1	1.9	1			0.37	1	2.5	1	0.88	1
		0.37	1	0.33	1	0.65	1			0.32	1	1.6	1	0.29	1
		0.3	1	0.31	1	0.5	1			0.3	1	2	1	0.48	1
		0.46	1	1.3	1	1.8	1			0.85	1	1.7	1	0.18	1
		0.2	1	1.3	1	0.87	1			0.79	1	0.59	1		
				0.28	1	0.55	1			0.93	1	1.6	1		
				0.63	1	1	1			1.4	1	0.35	1		
				0.27	1	0.52	1			0.78	1	1.2	1		
				0.31	1	0.28	1			0.75	1	1.2	1		
						0.52	1			0.54	1	0.72	1		
						0.87	1			0.9	1	0.83	1		
						0.61	1			0.5	1	1.5	1		
										0.25	1	1.2	1		

Notes:
Fish tissue samples considered for the HHRA were 40-70 cm for northern pike and 28-52 cm for walleye
Detection columns differentiate a detection with a value of 1, and a non-detect with a value of 0

Pakwash Lake Mercury	Pakwash Lake Detection	Wegg Lake Mercury	Wegg Lake Detection	Oak Lake Mercury	Oak Lake Detection	Maynard Lake Mercury	Maynard Lake Detection	Tide Lake Mercury	Tide Lake Detection	Ball Lake North Basin Mercury	Ball Lake North Basin Detection	Ball Lake South Basin Mercury	Ball Lake South Basin Detection	Indian Lake Mercury	Indian Lake Detection
[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]	
Walleye		Walleye		Walleye		Walleye		Walleye		Walleye		Walleye		Walleye	
0.98	1	0.45	1	0.56	1	0.77	1	0.82	1	1	1	0.77	1	0.5	1
0.71	1	0.39	1	0.73	1	0.47	1	0.54	1	0.46	1	0.4	1	0.56	1
0.47	1	0.31	1	0.57	1	0.36	1	0.45	1	0.48	1	0.8	1	0.86	1
0.43	1	0.37	1	0.55	1	0.58	1	0.48	1	0.49	1	0.69	1	0.67	1
0.97	1	0.42	1	0.71	1	0.68	1			0.55	1	0.41	1	0.48	1
0.28	1	0.45	1	0.51	1	0.28	1			0.95	1	0.44	1	0.54	1
		0.26	1	0.6	1	0.48	1			0.26	1	0.47	1	0.44	1
		0.44	1	0.54	1	0.54	1			1	1	1.4	1	0.5	1
		0.35	1	0.3	1	0.43	1			1.2	1	1.3	1	0.46	1
		0.48	1	0.57	1	0.48	1			0.59	1	1.2	1	0.37	1
		0.49	1	0.31	1	0.58	1			0.56	1	0.66	1	0.38	1
		0.31	1	0.47	1	0.42	1			0.42	1	1.2	1	0.27	1
		0.36	1	0.24	1	0.38	1			0.51	1	0.81	1		
		0.29	1	0.68	1	0.97	1			1	1	1.3	1		
		0.63	1	0.73	1	0.32	1			0.51	1	0.42	1		
						0.55	1			0.31	1	0.84	1		
						1.6	1			0.92	1	1.2	1		
										0.82	1	0.86	1		
										0.52	1	0.93	1		
										0.37	1	0.91	1		
										0.27	1	1.3	1		
										0.49	1	1.2	1		
										0.24	1	1.1	1		
										0.69	1	0.72	1		
										0.4	1	0.73	1		
										0.26	1	1.7	1		
										0.32	1	1.1	1		
										0.47	1	0.91	1		
										0.55	1	0.46	1		
										1	1	1	1		
										0.36	1	0.86	1		
										0.79	1	0.78	1		
										0.84	1	0.5	1		
										0.9	1	0.5	1		
										0.36	1	0.76	1		
										0.65	1	1	1		
										0.62	1	1.4	1		
										0.87	1	1.7	1		
										0.49	1	0.22	1		
										0.5	1	0.58	1		
										0.41	1	0.99	1		
										0.34	1	0.53	1		
										0.64	1	0.85	1		
										0.44	1	0.77	1		
										0.64	1	0.67	1		
										0.35	1	0.66	1		
												1.2	1		
												0.65	1		
												0.61	1		
												0.5	1		
												0.63	1		

Pakwash Lake Mercury	Pakwash Lake Detection	Wegg Lake Mercury	Wegg Lake Detection	Oak Lake Mercury	Oak Lake Detection	Maynard Lake Mercury	Maynard Lake Detection	Tide Lake Mercury	Tide Lake Detection	Ball Lake North Basin Mercury	Ball Lake North Basin Detection	Ball Lake South Basin Mercury	Ball Lake South Basin Detection	Indian Lake Mercury	Indian Lake Detection
[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]	
All Forage Fish		All Forage Fish		All Forage Fish		All Forage Fish		All Forage Fish		All Forage Fish		All Forage Fish		All Forage Fish	
				0.07	1	0.09	1			0.11	1	0.24	1	0.35	1
				0.1	1	0.09	1			0.26	1	0.24	1	0.44	1
				0.04	1	0.08	1			0.21	1	0.22	1	0.27	1
				0.19	1	0.08	1			0.08	1	0.25	1	0.28	1
				0.32	1	0.05	1			0.36	1	0.39	1	0.26	1
				0.16	1	0.15	1			0.15	1	0.29	1	0.18	1
				0.15	1	0.11	1			0.39	1	0.22	1	0.1	1
				0.17	1	0.11	1			0.24	1	0.49	1	0.17	1
				0.15	1	0.06	1			0.16	1	0.26	1	0.28	1
				0.26	1	0.14	1			0.11	1	0.23	1	0.21	1
				0.25	1	0.16	1			0.23	1	0.26	1	0.22	1
				0.21	1	0.13	1			0.17	1	0.19	1	0.13	1
				0.22	1	0.13	1			0.17	1	0.28	1	0.22	1
				0.11	1	0.11	1			0.17	1	0.23	1	0.17	1
				0.19	1	0.11	1			0.14	1	0.18	1	0.19	1
				0.21	1	0.14	1			0.21	1	0.25	1	0.21	1
				0.18	1	0.06	1			0.21	1	0.18	1	0.11	1
				0.17	1	0.08	1			0.22	1	0.24	1		
				0.2	1	0.07	1			0.14	1	0.15	1		
				0.2	1	0.12	1			0.23	1	0.18	1		
										0.27	1	0.26	1		
										0.19	1	0.24	1		
										0.23	1	0.27	1		
										0.28	1	0.18	1		
										0.2	1	0.29	1		
										0.24	1	0.68	1		
										0.25	1	0.18	1		
										0.13	1	0.15	1		
										0.23	1	0.33	1		
										0.19	1	0.25	1		
										0.14	1	0.19	1		
										0.19	1	0.25	1		
										0.14	1	0.19	1		
										0.11	1	0.18	1		
										0.12	1	0.18	1		
										0.13	1	0.19	1		
										0.12	1	0.31	1		
										0.13	1	0.15	1		
										0.26	1	0.15	1		
										0.09	1	0.15	1		
										0.12	1	0.1	1		
										0.09	1	0.17	1		
										0.35	1	0.19	1		
										0.2	1	0.12	1		
										0.2	1	0.14	1		
										0.15	1	0.08	1		
										0.13	1	0.14	1		
										0.23	1	0.15	1		
										0.43	1	0.13	1		
										0.1	1	0.14	1		
										0.08	1	0.12	1		
										0.14	1	0.11	1		
										0.07	1	0.1	1		
										0.16	1	0.12	1		
										0.13	1	0.18	1		
										0.15	1	0.21	1		
										0.07	1	0.12	1		
										0.07	1				
										0.07	1				
										0.08	1				
										0.06	1				
										0.07	1				

Pakwash Lake Mercury	Pakwash Lake Detection	Wegg Lake Mercury	Wegg Lake Detection	Oak Lake Mercury	Oak Lake Detection	Maynard Lake Mercury	Maynard Lake Detection	Tide Lake Mercury	Tide Lake Detection	Ball Lake North Basin Mercury	Ball Lake North Basin Detection	Ball Lake South Basin Mercury	Ball Lake South Basin Detection	Indian Lake Mercury	Indian Lake Detection
[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]	
Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm		Forage Fish <25 cm	
						0.08	1								

Pakwash Lake Mercury	Pakwash Lake Detection	Wegg Lake Mercury	Wegg Lake Detection	Oak Lake Mercury	Oak Lake Detection	Maynard Lake Mercury	Maynard Lake Detection	Tide Lake Mercury	Tide Lake Detection	Ball Lake North Basin Mercury	Ball Lake North Basin Detection	Ball Lake South Basin Mercury	Ball Lake South Basin Detection	Indian Lake Mercury	Indian Lake Detection
[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]		[mg/kg bw]	
Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm		Forage Fish >25 cm	
				0.07	1	0.09	1			0.11	1	0.24	1	0.35	1
				0.1	1	0.09	1			0.26	1	0.24	1	0.44	1
				0.04	1	0.08	1			0.21	1	0.22	1	0.27	1
				0.19	1	0.05	1			0.08	1	0.25	1	0.28	1
				0.32	1	0.15	1			0.36	1	0.39	1	0.26	1
				0.16	1	0.11	1			0.15	1	0.29	1	0.18	1
				0.15	1	0.11	1			0.39	1	0.22	1	0.1	1
				0.17	1	0.06	1			0.24	1	0.49	1	0.17	1
				0.15	1	0.14	1			0.16	1	0.26	1	0.28	1
				0.26	1	0.16	1			0.11	1	0.23	1	0.21	1
				0.25	1	0.13	1			0.23	1	0.26	1	0.22	1
				0.21	1	0.13	1			0.17	1	0.19	1	0.13	1
				0.22	1	0.11	1			0.17	1	0.28	1	0.22	1
				0.11	1	0.11	1			0.17	1	0.23	1	0.17	1
				0.19	1	0.14	1			0.14	1	0.18	1	0.19	1
				0.21	1	0.06	1			0.21	1	0.25	1	0.21	1
				0.18	1	0.08	1			0.21	1	0.18	1	0.11	1
				0.17	1	0.07	1			0.22	1	0.24	1		
				0.2	1	0.12	1			0.14	1	0.15	1		
				0.2	1					0.23	1	0.18	1		
										0.27	1	0.26	1		
										0.19	1	0.24	1		
										0.23	1	0.27	1		
										0.28	1	0.18	1		
										0.2	1	0.29	1		
										0.24	1	0.68	1		
										0.25	1	0.18	1		
										0.13	1	0.15	1		
										0.23	1	0.33	1		
										0.19	1	0.25	1		
										0.14	1	0.19	1		
										0.19	1	0.25	1		
										0.14	1	0.19	1		
										0.11	1	0.18	1		
										0.12	1	0.18	1		
										0.13	1	0.19	1		
										0.12	1	0.31	1		
										0.13	1	0.15	1		
										0.26	1	0.15	1		
										0.09	1	0.15	1		
										0.12	1	0.1	1		
										0.09	1	0.17	1		
										0.35	1	0.19	1		
										0.2	1	0.12	1		
										0.2	1	0.14	1		
										0.15	1	0.08	1		
										0.13	1	0.14	1		
										0.23	1	0.15	1		
										0.43	1	0.13	1		
										0.1	1	0.14	1		
										0.08	1	0.12	1		
										0.14	1	0.11	1		
										0.07	1	0.1	1		
										0.16	1	0.12	1		
										0.13	1	0.18	1		
										0.15	1	0.21	1		
										0.07	1	0.12	1		
										0.07	1				
										0.07	1				
										0.08	1				
										0.06	1				
										0.07	1				

Hutchinson
Environmental Sciences Ltd.

93 Kimberley Avenue, Bracebridge, ON P1L 1Z8 | 705-645-0021
www.environmentalsciences.ca

June 26, 2025 Project No. 240147

Aaron MacDonell
Director, Environmental Services, Great Bear Resources
Kinross Gold Corporation
25 York Street, Suite 1700
Toronto Ontario
M5J 2V5

Dear Mr. MacDonell,

Re: Great Bear Resources Ltd. Methylmercury Predictive Model Introduction

INTRODUCTION

Hutchinson Environmental Sciences Ltd. (HESL) and WSP Global Inc. (WSP) developed a multi-step model to predict the potential effects of sulphate in regulated effluent from the proposed Great Bear Resources Ltd. (Great Bear) gold mine (the Project) on methylmercury stimulation in the downstream aquatic environment. Great Bear is a wholly-owned subsidiary of Kinross Gold, and plans to develop, operate and reclaim an open-pit and underground gold mine approximately 25 km southeast of Red Lake, Ontario (Figure 1).

The predictive model was developed as a key component of the methylmercury study plan for the Project. The study plan will be an adaptive document that includes the predictive model to assess the potential methylmercury bioaccumulation risks, monitoring plans to check for risks and validate model predictions, and a response framework to protect human and ecological health.

This letter provides an introduction to the predictive model for review by regulatory agencies and intervenors; it is supported by attached technical memorandums which describe the assumptions and relationships used to develop the three principal modules of the model. Common understanding of, and agreement on, the model approach will be critical for evaluating its predictions.

BACKGROUND

Methylmercury Stimulation

Methylmercury is produced naturally in the environment through the metabolic process of microbes that live in anaerobic (low- or no-oxygen) sediment adding methyl groups (CH_3) to existing inorganic mercury (Hg^{2+}) to form CH_3Hg^+ (methylmercury). Sulphate-reducing bacteria are important methylating microbes in the setting of Project, but the process can also occur with iron-reducing bacteria and methanogens.

KILLORAN LAKE
KEG LAKE
WILLANS LAKE
SULLY LAKE
GULLROCK LAKE
BOYDEN LAKE
SPARKS LAKE
MOOSE CREEK
TWO ISLAND LAKE
BUG RIVER
STONE LAKE
TUZYK'S ROAD
105
SNOWSHOE ROAD
CHUKUNI RIVER
CHUKUNI RIVER ROAD
CARIBOU CREEK
GENESSEE LAKE
UNNAMED WATERBODY 2
UNNAMED WATERCOURSE 3
UNNAMED WATERBODY 6
DIXIE LAKE ROAD
DIXIE CREEK
EAST LAKE
DIXIE LAKE
UNNAMED WATERCOURSE 7
HIEWALL LAKE
TOTE ROAD LAKE
PAKWASH LAKE

KEY MAP

SCALE 1:30,000,000

LEGEND

- GREAT BEAR PROJECT FOOTPRINT
- PROJECT AREA
- LOCAL STUDY AREA FOR HUMAN HEALTH AND ECOLOGICAL HEALTH RISK ASSESSMENT
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

0 1 2 4
1:105,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
3. SITE PLAN BASED ON INFORMATION PROVIDED BY GREAT BEAR RESOURCES, DECEMBER 2024 / JUNE 2025.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
PROJECT LOCATION AND LOCAL STUDY AREA

CONSULTANT

YYYY-MM-DD	2025-06-26
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
0 25mm

PATH: X:\CA\CAOAK\300-OAKMIS-FS1-Project\F2023\Projects\OMEMA2303_Kinross_Great_Bear_Env\07_GIS\Human_Health\AAC_Tech_Memo_June2024\MXD\Project_Loc and_LSA_1.mxd PRINTED ON: 2025-06-26 AT: 12:24:46 PM

The natural rate of methylation can increase when the microbial community is stimulated by favourable conditions, increasing methylmercury above background (pre-stimulation) conditions. In the case of the Project, sulphate in effluent could stimulate sulphate-reducing bacterial metabolism, increasing methylmercury production rates. Natural factors limit methylmercury generation and when the sulphate input ceases or is reduced, microbial growth slows and the rate of methylmercury creation decreases.

Methylmercury Bioaccumulation

Increased methylmercury in the aquatic environment is a concern in the Project context, due to bioaccumulation and possible mercury health effects to fish consumers. Methylmercury accumulates in organisms because it is consumed (eaten) with the bodies of prey but is not effectively excreted. Mercury bioaccumulation in fish occurs through the aquatic food chain when the microbes and metabolic byproducts containing methylmercury in sediment are consumed by invertebrates. Methylmercury accumulates in the invertebrates, the invertebrates are then consumed by higher organisms including fish and their prey, and mercury successively accumulates in each step of the chain.

There is a delay between the time the microbial community is stimulated and source methylmercury increases, and the exposure of fish and fish consumers to a potential bioaccumulation response occurs, because mercury concentrations increase step-wise up the food chain with organisms lower on the food chain being exposed first. The length of the delay between source changes and organism exposure will vary based on food-web structure and the trophic level of concern. After methylmercury source stimulation decreases, mercury concentrations in the food web will also decrease.

PREDICTIVE MODEL

Overview

The predictive model consists of three modules, each representing a key step in the link between sulphate stimulation of the microbial community and fish consumers. The modules are:

1) Water module: a numerical model that predicts the effect of sulphate addition on methylmercury response in sediment porewater.
2) Fish bioaccumulation module: a numerical relationship that predicts how the methylmercury could bioaccumulate in fish.
3) Risk/Exposure module: an exposure assessment that quantifies the increased risk (if any) the potential changes in fish mercury could have on human and wildlife consumers.

Each module was completed by a Qualified Person (QP) with expertise in evaluating the aquatic or human-health risk processes of the subject module. The modules provide a logical, transparent and step-wise prediction of mercury risk from the primary factors that cause sulphate to enhance mercury methylation. The factors considered represent the environmental processes relevant to the Project and its setting. The relationship between sulphate in effluent and mercury effects on fish consumers is complex but the models of the underlying processes are well-supported by science.

Model Principal Concepts

The concepts that each model module includes are summarized below.

1) The Water module:
    - A step-wise numerical model that includes the important step-wise processes and factors that cause sulphate addition to the aquatic system to stimulate microbial production of methylmercury.
    - Estimates the mercury that is available for food-web exposure.
    - Is supported by an extensive literature search and site-specific data to derive relevant model inputs.
    - Will include predictions of methylmercury stimulation over a range of sulphate inputs and environmental conditions that could be expected to occur in the Project area and receiving environmental, and will be tested with sensitivity analyses.
    - Outputs provide the methylmercury source terms for the Fish Bioaccumulation and Risk/Exposure modules.

2) The Fish Bioaccumulation module:
    - Relates how additional methylmercury (predicted by the Water module) could result in increased mercury in fish.
    - A Bioaccumulation Factor (BAF) will be used to calculate how increased methylmercury in water could increase tissue concentrations in fish.
    - The BAF (a multiplication factor) is based on the existing relationships (ratio) between mercury in water and fish in the Project area and downstream (i.e., demonstrated, project-specific relationships), supported by relevant peer-reviewed literature.
    - The relative predicted increases in fish mercury (i.e., above background) are used as input data for the Risk/Exposure module.

3) The Risk/Exposure module (under development):
    - Evaluates how predicted methylmercury increases in surface water and fish could affect risk to human health through the consumption of surface water and fish.
    - Calculates Hazard Quotients for exposed persons, consistent with Human Health Risk Assessment guidance from Health Canada, and describes changes in predicted health risk (if any).
    - The predicted changes in fish methylmercury will be used to evaluate whether the predicted changes could result in a change to the current Ontario Provincial Fish Consumption Guidelines. Consumption Advice is how the Province manages fish-mercury risk in its public water resources.

A detailed description of each model module is attached, for technical review.

CLOSING

This introduction and the model module descriptions (attached) are to facilitate regulator and intervenor technial review, questions and feedback, to gain a common understanding of the predictive models. Technically supported discussion is encouraged.

Thank you kindly for the opportunity to complete this work for Great Bear Resources.

Per: Hutchinson Environmental Sciences Ltd.

David Leeder, P.Geo.
Senior Environmental Scientist and Principal
david.leeder@environmentalsciences.ca

Per: WSP Global Inc.

Karl Bresee, B.Sc, PBD, P.Bio
Senior Risk Assessor
karl.bresse@wsp.com

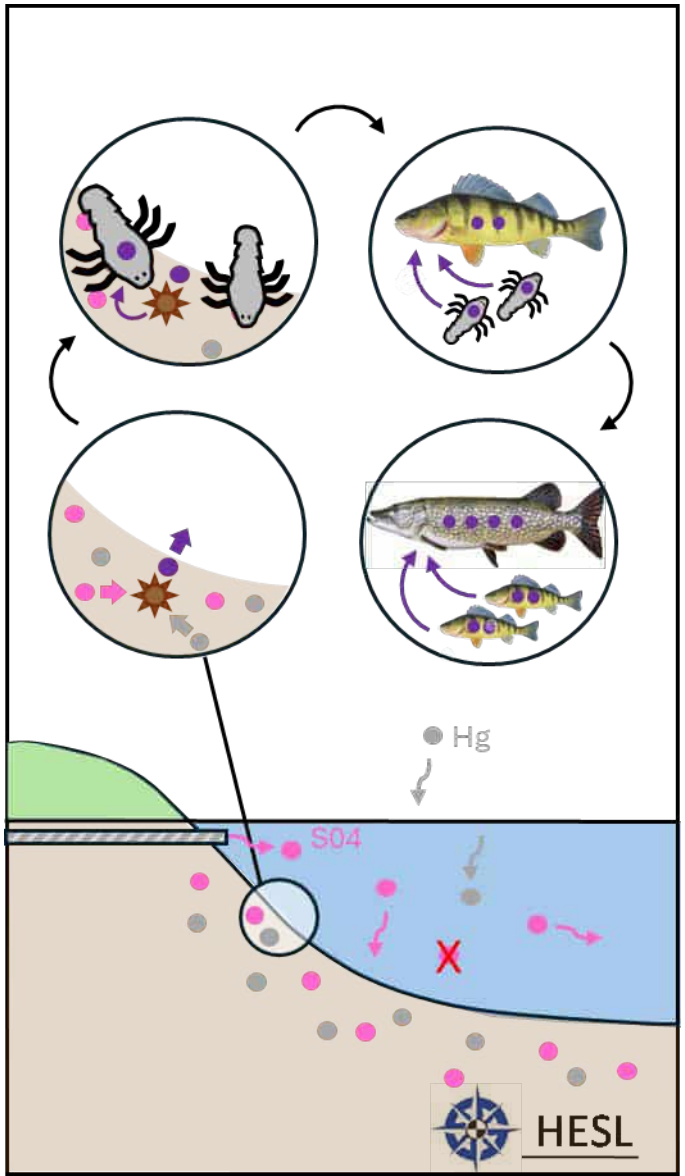
Hutchinson
Environmental Sciences Ltd.

SO_4-MeHg Water Model

Technical Session on
MeHg Predictive Modelling
3 Sep 2025

Methyl Hg Predictive Modelling

- Modelling predicts:
  - Sulphate methylmercury stimulation
  - Bioaccumulation response
  - Receptor risk
- one module for each key step
- prepared with best available information to represent project-specific and downstream environments

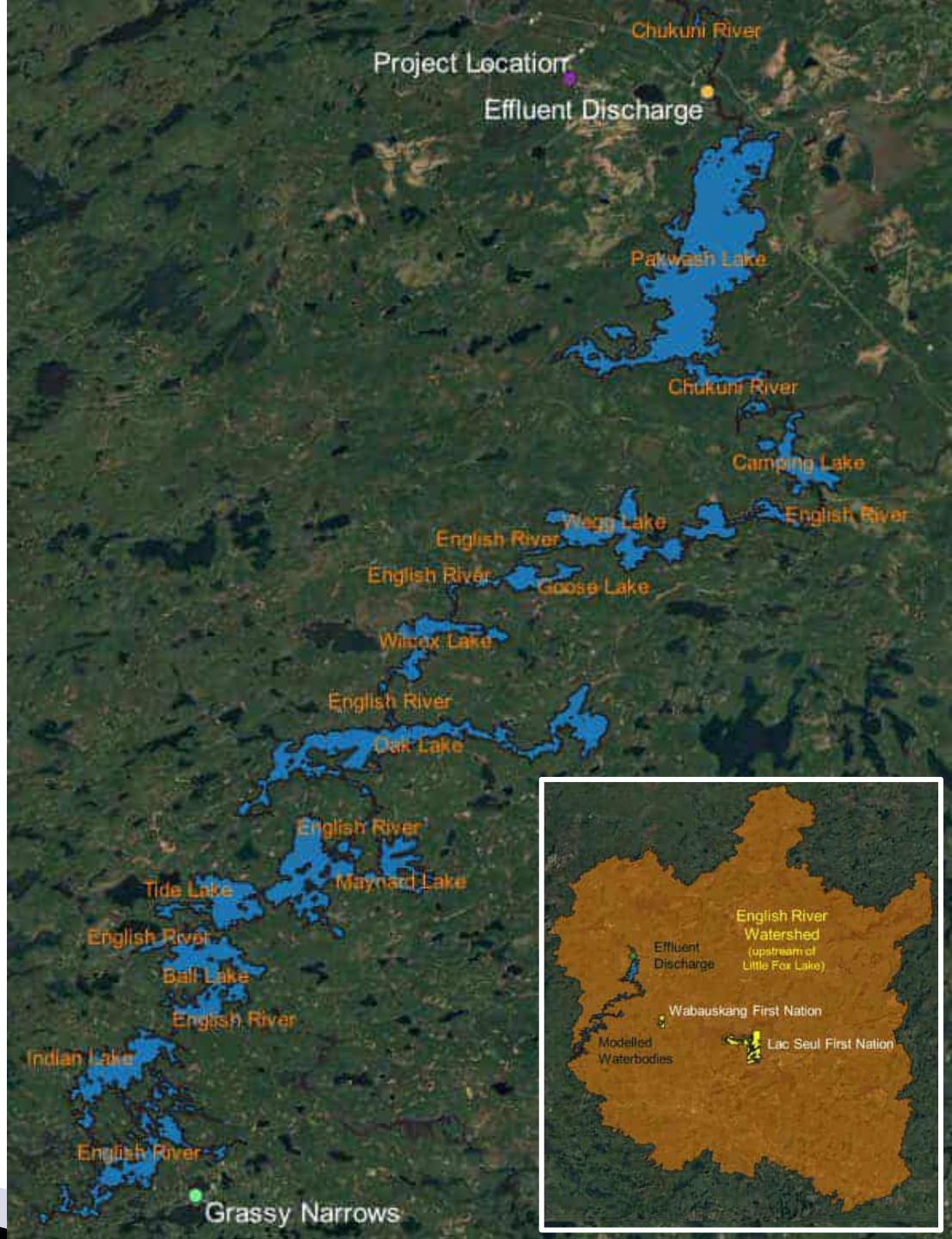


Background

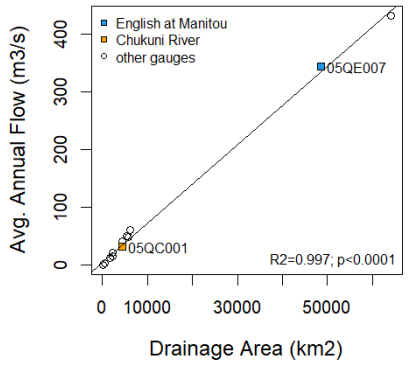
- sulphate-reducing bacteria (SRB)
  - principal methylators of Hg in freshwaters
- Hg methylation can be limited by sulphate (SO_4) availability
  - added SO_4 can stimulate MeHg production
- anoxic environments – SRB "breathe" SO_4
- organic carbon ("food") also needed
- MeHg bioaccumulates in fish tissue
- toxicity represents a risk to human health

Model Area

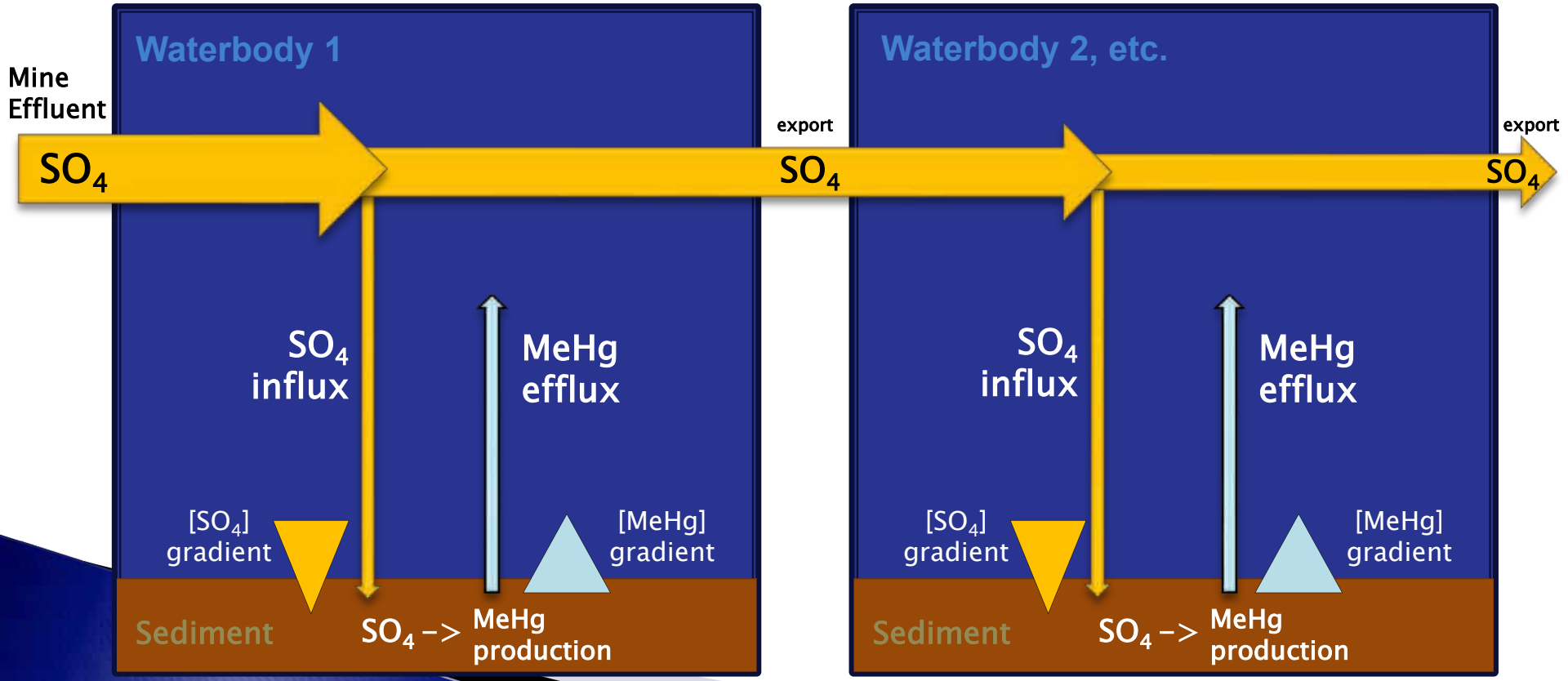
- outfall to English River downstream of Grassy Narrows Lake
- 23 waterbodies



Modelling Approach



- **steady-state**, empirical/mass-balance model
- **flows** estimated by areal prorating of WSC gauge data
- **SO_4 loading** calculated by mass balance (annual avg.)
- SO_4 and MeHg **fluxes** based on water-porewater concentration gradients
- MeHg change from SO_4 loading change based on empirical relationship



SO_4–MeHg Relationship

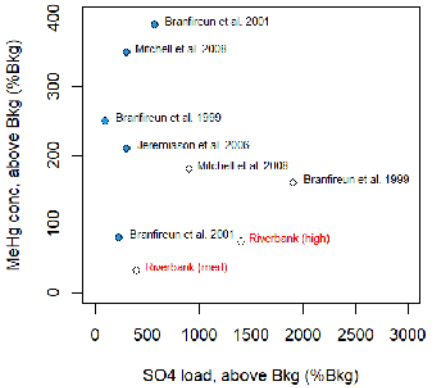


Table 5. Studies of porewater-MeHg increases in response to augmented SO_4 loading.

Reference	Location	Date of experiments	*Duration	SO_4 loading (variable units)		MeHg concentration (ng/L)		SO_4 load (/ Bkg.)	[MeHg] (/ Bkg.)	Ratio	Avg. Ratio
				Bkg.	Experiment	Bkg.	Experiment				
Branfireun et al. 1999	small headwater peatland in Experimental Lakes Area, ON	Sep 1996	2 days	1.4 kg/ha	28 kg/ha	1.5	3.8	20.0	2.5	0.13	0.96
		Sep 1997	1 day		2.8 kg/ha	0.7	2.5	2.0	3.6	1.79	
Branfireun et al. 2001	low sedge peatland in northern Sweden	*"during the snow-free period"*	3 years	9 kg-S/ha/y	30 kg-S/ha/y	0.33	0.61	3.3	1.8	0.55	0.65
					60 kg-S/ha/y		1.62	6.7	4.9	0.74	
Jeremiason et al. 2006	Marcell Experimental Forest, MN	May 2002	2 weeks	8 kg/ha/y	32 kg/ha	0.52	1.63	4.0	3.1	0.78	0.78
Mitchell et al. 2008	Marcell Experimental Forest, MN	Jun 2005	2 days	6.2 kg/ha/y	24.8 kg/ha/y	0.26	1.18	4.0	4.5	1.13	0.71
					62 kg/ha/y	0.26	0.72	10.0	2.8	0.28	
**Branfireun 2024	Wabigoon River at Dryden Mill	Nov–Dec (year unspecified)	9–24 days	0.28 mg	1.4 mg	151	200	5	1.32	0.26	0.19
					4.2 mg		265	15	1.75	0.12	
					1.4 mg	187	236	5	1.26	0.25	
					4.2 mg		347	15	1.86	0.12	
										Median:	**0.65**

**Refers to time elapsed prior to the presented data, not necessarily the duration of the entire experiment.*
***Branfireun (2024) used bottle incubations and reported MeHg in supernatant water (deionized and mill effluent) from experimental samples; here it is assumed that the 2-mg/L SO_4 treatment from this study represents background (Bkg.) conditions (allowing relative changes to be quantified for the 10 mg/L and 30 mg/L treatments).*

HESL

July 2025

Great Bear Project

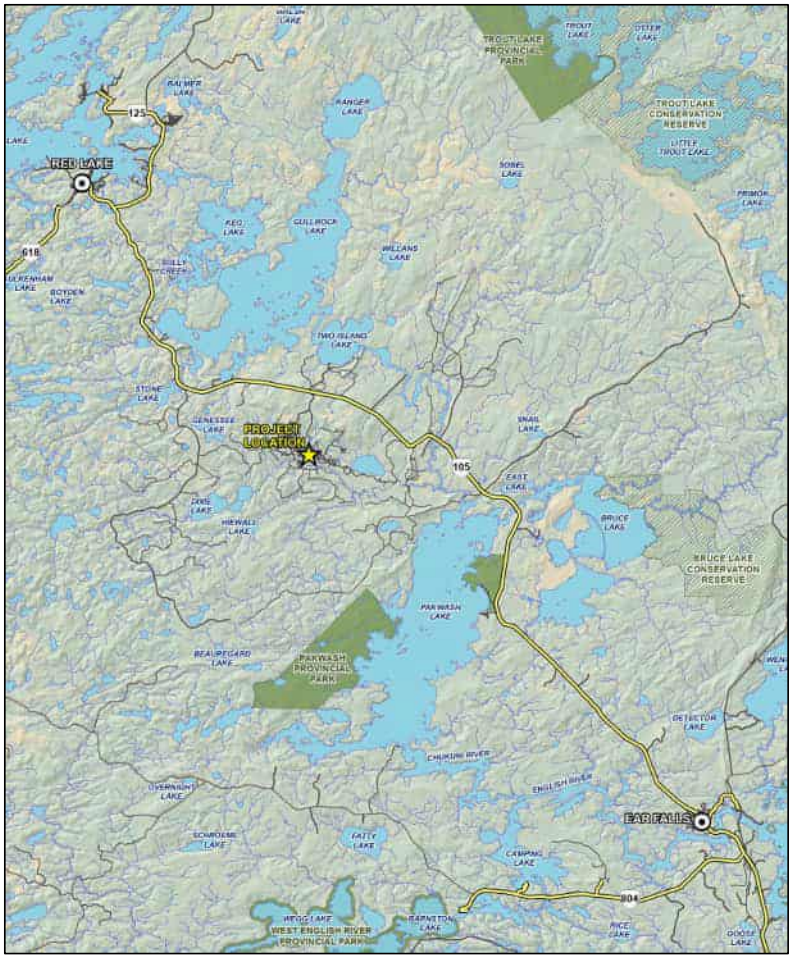
Project Update

Location

GREAT BEAR PROJECT

— Great Bear Resources Ltd., a wholly owned subsidiary of Kinross Gold Corp. propose to develop a gold mine and processing complex on the Great Bear Property

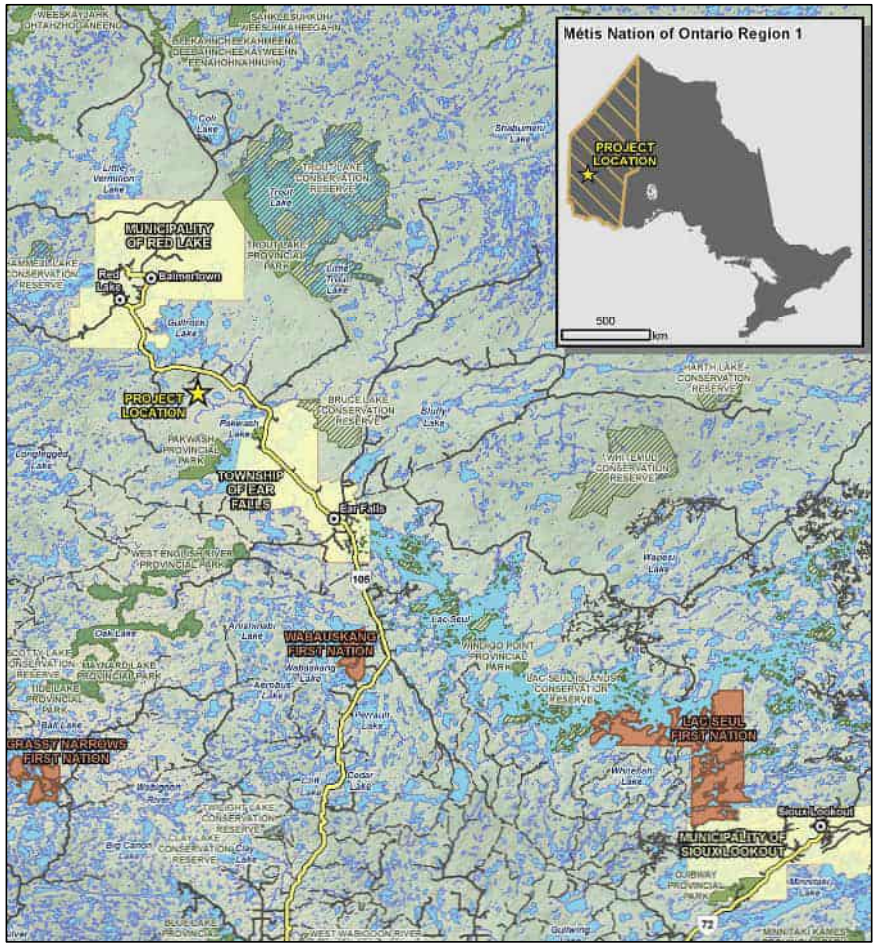
— Located between Red Lake and Ear Falls along a regional highway in northwestern Ontario



Location

GREAT BEAR PROJECT

- Great Bear Resources has been consulting / engaging with:
  - *Asubpeeschoseewagong Netum Anishinabek (Grassy Narrows First Nation)*
  - *Lac Seul First Nation*
  - *Northwestern Ontario Métis Community*
  - *Wabauskang First Nation*
- Nearest Reserve lands are 56 km to the southeast (Wabauskang First Nation)



02.

Proponent

GREAT BEAR PROJECT

- Property was purchased by Kinross Gold Corp. to re-establish a long-term Canadian operating presence
- Great Bear (Gold) Project is a proposed underground and open pit mine, and process plant with related facilities
- Principal contact is:
  - *Aaron MacDonell*
  - *Director, Environmental Services*
  - *807-620-8573*
  - *aaron.macdonell@kinross.com*

— Environmental Baseline Studies:

- — *extensive environmental baseline studies completed to date*
- — *multi-year, multi-season data collection where appropriate*
- — *designed programs were supplemented to respond to comments received from LSFN and WFN*
  - — included enhanced eDNA studies as well as expanded surface water sampling program and extended mercury baseline

— Traditional Knowledge Studies:

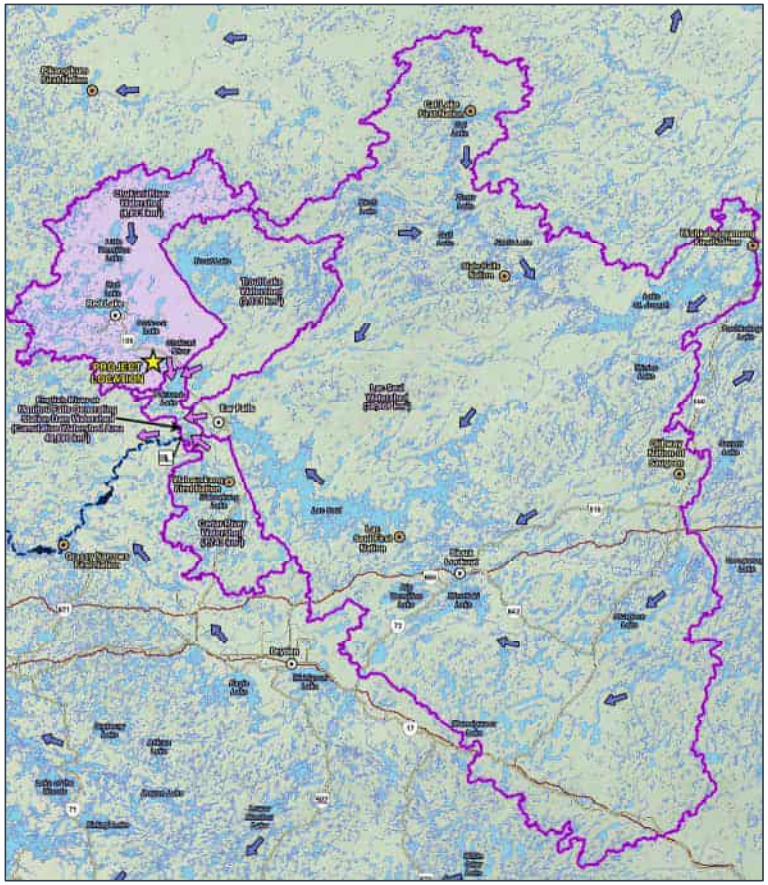
- — *Great Bear Resources funded and has also supported local Indigenous Nations in the completion of comprehensive TK / TLRU data collection*

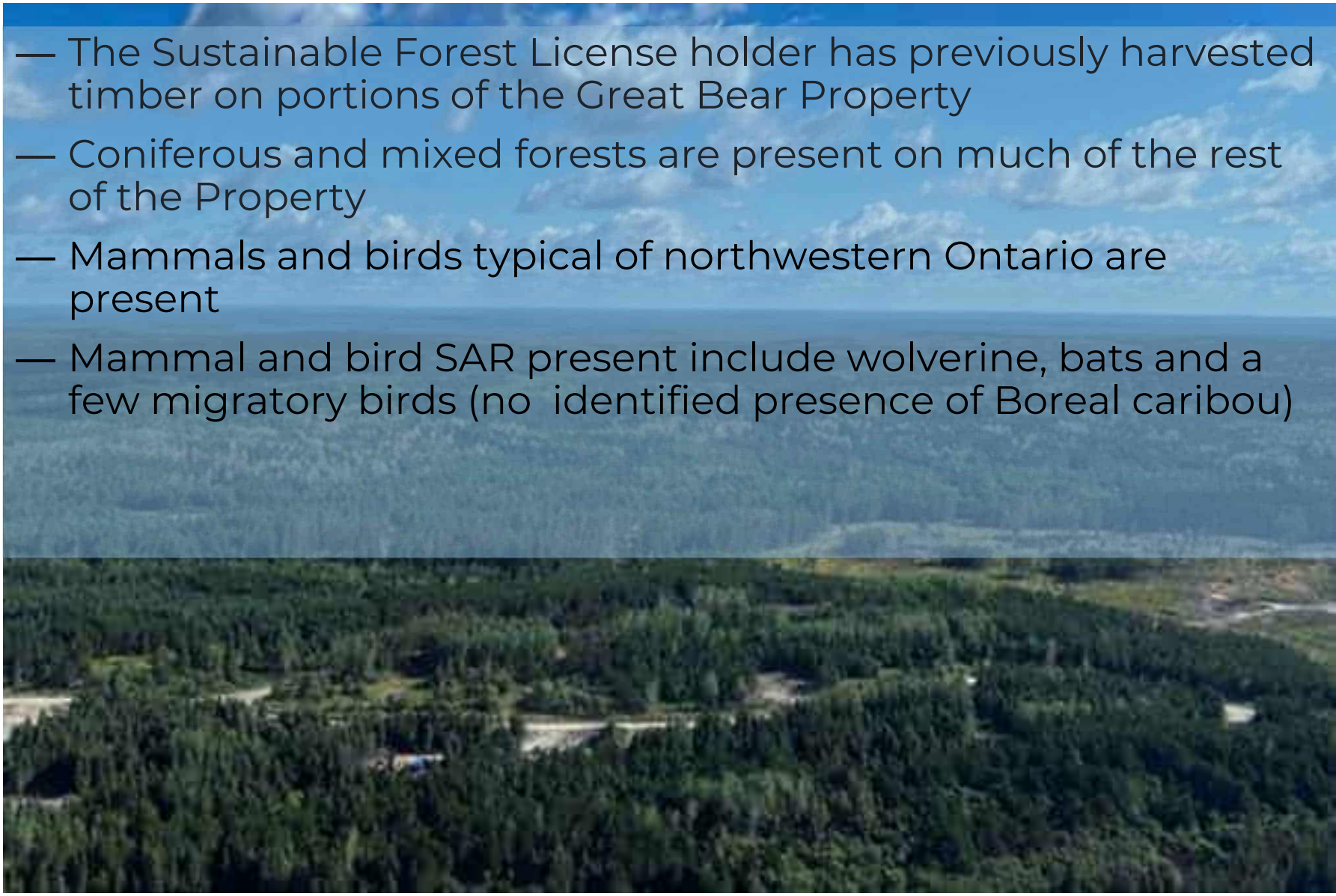
03.

Environment Overview

GREAT BEAR PROJECT

- Landscape is glaciated bedrock terrain, with an undulating topography
- Project is situated at a tributary to the Chukuni River, a relatively large water system that flows into Pakwash Lake
- Pakwash Lake receives waters from a very large area and discharges southward into the English River system
- Local fish communities represent cool to coldwater species typical of northern Ontario





- The Sustainable Forest License holder has previously harvested timber on portions of the Great Bear Property
- Coniferous and mixed forests are present on much of the rest of the Property
- Mammals and birds typical of northwestern Ontario are present
- Mammal and bird SAR present include wolverine, bats and a few migratory birds (no identified presence of Boreal caribou)

- A compact footprint proposed, re-using and expanding on facilities and infrastructure developed for the Advanced Exploration Program
- 3 years of construction followed by 26-year mine life
  - *underground and open pit mining for about 9 years*
  - *underground only after*
- Progressive and final reclamation will follow Ontario *Mining Act* requirements
- Large number of well-paying jobs proposed:
  - *workforce numbers will peak during the construction phase at over 1,300 people in -Year 1*
  - *about 1,100 people will be employed when both open pit and underground mining is occurring*
  - *decreasing to approximately 700 workers when just underground mining*

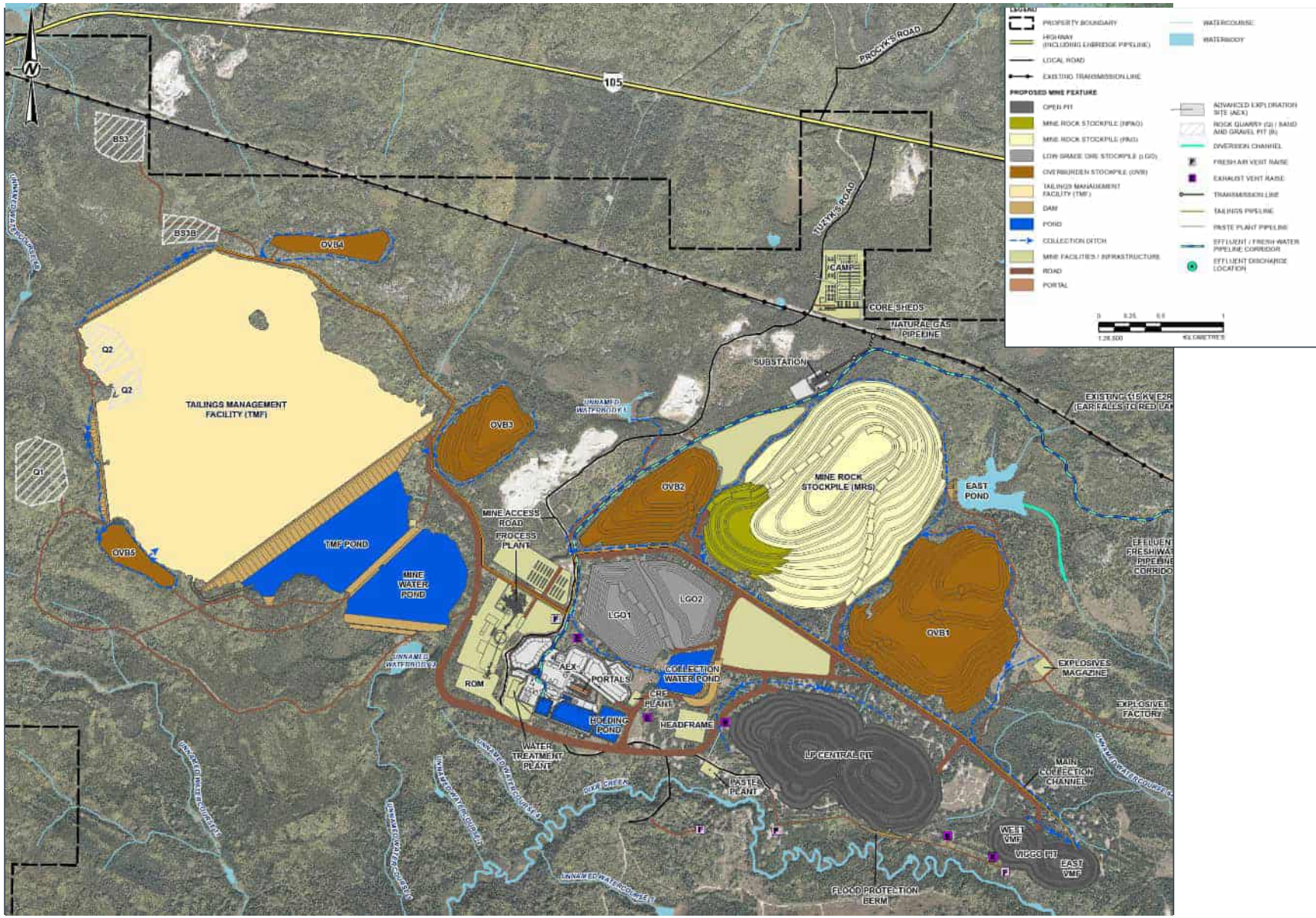
- Proposed mine is comprised of underground workings and two open pits (LP Central and Viggo)
- Mining and onsite processing of ore is planned at a nominal combined rate up to 15,000 tpd
- Mining of the Viggo pit will be completed during construction phase including to provide construction materials
- Processing of mined ore to produce gold and silver (doré) bars will occur in a conventional, process plant designed with a high level of water recycle

- Residual mineral wastes from mining and processing will be stored in a manner that supports long-term physical and chemical stability
- Portions of the ore and mine rock are potentially acid generating (PAG)
- Two tailings streams are proposed:
  - *desulphurized tailings (non-PAG) to be stored in a surface Tailings Management Facility*
  - *concentrate tailings (PAG) to be stored underwater in re-purposed Viggo pit (east lobe)*
- Overburden and mine rock will be re-used in construction as appropriate, or stored in surface stockpiles

04.

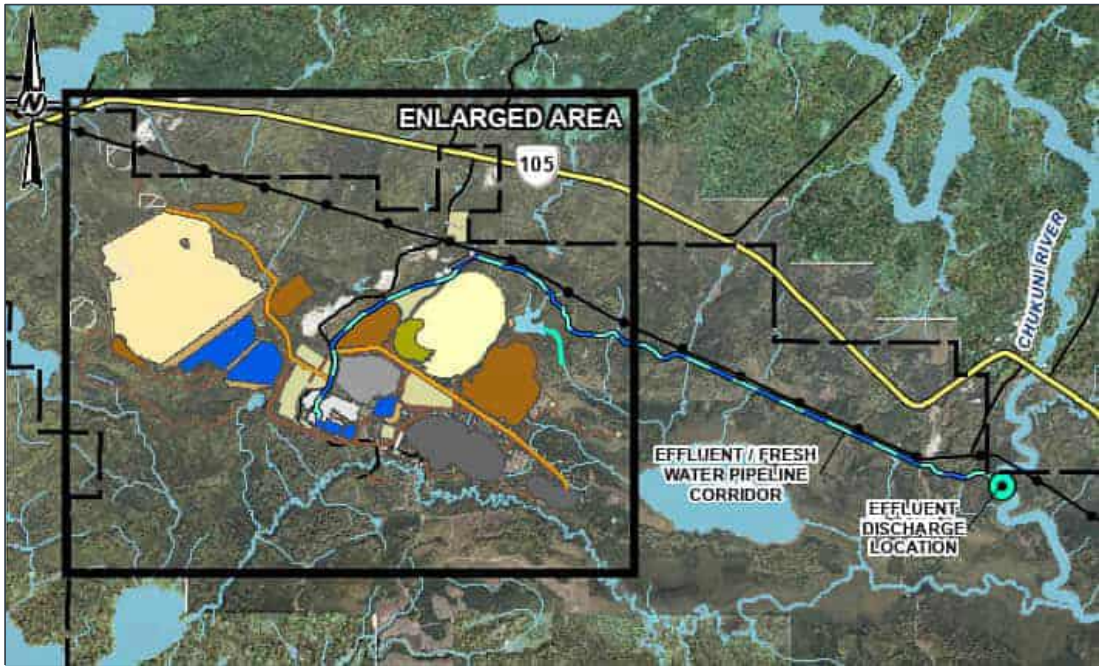
Project Overview

GREAT BEAR PROJECT



— Project design includes mitigation measures needed so that regulatory requirements will be met (including for air quality, noise and water quality, and others)

— Treated effluent will be discharged to the Chukuni River, a large watercourse with high assimilative capacity



05.

Optimizations since Planning Phase

GREAT BEAR PROJECT

— Site plan:

- — *compact footprint maintained and made smaller including to protect water and land*
- — *strategic placement of facilities, such as stockpiles upgradient of open pit for efficient seepage collection and avoid waterbodies and watercourses as reasonable*

— Water treatment:

- — *contact water will be collected, recycled and re-used as reasonable*
- — *excess waters will be treated to meet or exceed regulatory standards*
- — *proven, industry standard treatment methods will be used, supplemented by selective use of membrane filtration*

— Camp:

- — *local hiring is proposed as practical*
- — *camp will be provided for others to alleviate potential pressure on local communities*
- — *discussions continuing with local municipalities to support potential housing improvements or infrastructure initiatives*

05.

Optimizations since Planning Phase

GREAT BEAR PROJECT

- **Tailings Management Facility:**
  - *design and operations will follow Mining Association of Canada / Canadian Dam Association guidelines*
  - *an Independent Tailings Review Panel is already in place*
- **Cyanide management:**
  - *Project will meet International Cyanide Management Code*
- **Carbon neutral:**
  - *a credible scenario is proposed to achieve net-zero for the Project*

06.

Schedule and Next Steps

GREAT BEAR PROJECT

- **Impact Statement:**
  - *document is in preparation*
  - *technical workshops planned with regulatory agencies*
- **Anishnaabe-led Impact Assessment:**
  - *independent; in parallel with federal process*
- **Federal approvals:**
  - *concurrent with the Impact Assessment*
  - *information provided to Transport Canada to support navigable waters determination*
  - *Impact Statement will include*
    - draft *Fisheries Act* Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan
    - draft Mine Waste Management Alternatives Assessment
- **Provincial approvals:**
  - *being prepared and negotiated in parallel with federal Impact Assessment process*

Impact Statement Timeline

Submission 1 - Q3 2025 (Sections 1, 2, 4, 5, 19, 22)

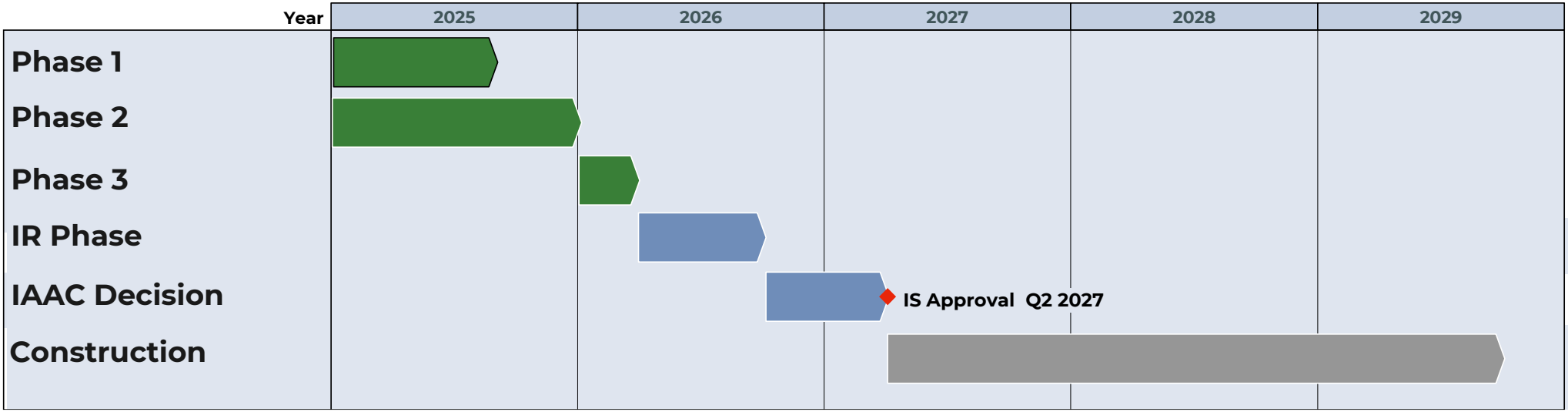
- *Introduction, Environmental Setting, Alternatives Assessment, Project Description and Activities, Environmental Approval Framework and Requirements, Authors and Qualifications*

Submission 2 – Q4 2025 (Sections 6, 7, 8, 9, 16, 17, 18)

- *Effects Assessment Methodology, Analysis of Changes to pVCs, Changes to Fish and Fish Habitat, Changes to Migratory Birds, Accidents and Malfunctions, Effects of the Environment, Summary of Benefits, Related Technical Appendices*

Submission 3 - Q1 2026 (Sections 3, 10, 11, 12, 13, 14, 15, 20, 21)

- *Participation and Engagement, Indigenous Peoples LSFN, Indigenous Peoples WFN, Indigenous Peoples ANA, Indigenous Peoples NWOMC, Indigenous Peoples Red Lake and Ear Falls, Cumulative Effects, Environmental Management and Follow-up, Conclusions*



THANK YOU

Kinross Great Bear / IAAC Meeting to Discuss Kinross' Approach to Assessing Project Effects on Indigenous Peoples

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [ ]	Hybrid [0]
Location:	Virtual		
Time:	1000 AM ET – 1100 AM ET		
Date:	July 11, 2025		
Executive Summary:	The meeting was convened by IAAC to receive an update on Kinross Great Bear's ongoing engagement and consultation efforts in support of its federal impact assessment submission. The SLR team, representing Kinross, provided a comprehensive presentation addressing the overall approach, technical pathways, socio-economic data, and community-specific engagement processes. SLR reaffirmed that validation of secondary source information would not be accepted without direct data confirmation. They presented key themes of the approach including surveys, socio-economic inputs, and methodology for informing designated federal valued components (VCs), such as those tied to water, atmospheric, and terrestrial pathways. The presentation highlighted ongoing work and collaboration with Indigenous communities, including LSFN and WFN under the Anishinaabe-Led Impact Assessment (ALIA) structure, and continuing dialogue with NWOMC and ANA. Specific consideration was given to wild rice areas and trapline access, noting that while certain areas were under consideration, no preferred sites have been identified. Residual impact considerations were acknowledged as ongoing. IAAC posed a series of clarifying questions, particularly regarding wild rice habitat relevance, use of proxy data, and communication with ANA. IAAC also confirmed the need for further meetings with ANA to support engagement and dialogue. The Agency expressed satisfaction with the presentation's clarity and progress to date. The meeting concluded with action items limited to the delivery of slide materials by Great Bear. Key Words: Wild Rice, Community Engagement, Valued Components		
Key Actions:	a. Great Bear i. Great Bear to issue slide materials to IAAC for next weeks meeting by EOD. b. IAAC i. None at this time.		

1. Attendance

Kinross Great Bear

- Mac Potter
- Connor Devereaux
- Luke Crosby

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Carter McCrae
- Elizabeth Chan
- Valerie Williams
- Keira Smith
- Ian Martin
- Dietrich Maahs
- Carla De Aquino

2. Agenda and Attachments

Presentation issued to IAAC, by Kinross Great Bear.

Approach to
Assessing Project Effe

3. Minutes
    a. Introduction
        i. IAAC opened meeting noting overview, and all those attending are in place.
    b. Presentation
        i. SLR team provided overview of presentation on behalf of the Kinross Great Bear team. Noting consideration to key topics, and approach.
        ii. General Approach
            1. SLR noted the importance of our general approach and no validation to secondary source information will not be received. SLR spoke to delivery of the TK Memorandum, and ensuring that overall scope considers the input required under typical TSIG. SLR noted current information in place and spoke to overall information received based on the General Approach slide.
            2. SLR spoke to surveys conducted, and socio-economic information needs around GBA+ and Indigenous community dialogue. SLR notes that ANA has communicated they are not seeking support in data collection.

a. IAAC had no questions at this time.

3. SLR moved into pathway assessment approach, and how they are informing those critical designated federal valued components including the mitigations currently being considered. SLR noted that in the case of residual effects, those key pathways will be carried forward. SLR provided overview of pathways related to water, atmospheric, and terrestrial pathways.
    a. IAAC had no questions at this time.
4. SLR noted and highlighted specific components related to Methylmercury, HHERA, and HIA. Noted that all will be carried into informing federal VCs.

iii. Indigeous Community Approach
1. LSFN/WFN
    a. SLR spoke to overall approach tied to ALIA, clearly noting ongoing information sharing, and collaborative nature. Noted that ALIA document will not be submitted with the Kinross Great Bear IA.
    b. SLR noted continued dialogue with technical working groups, and ongoing dialogue planned forward.
    c. SLR notes that Indigenous peoples section will be shared in draft to align with language and review and seek to ensure that interpretation is correct.
    d. SLR noted the likely need for workshops forward to review HHERA and HIA.
2. NWOMC
    a. SLR noted approach and continued work in progress.
3. ANA
    a. SLR spoke to overall approach, and application of a conservative based approach.
4. IAAC had no additional questions on approach to each community.

iv. Key Topics
1. Wild Rice
    a. SLR spoke to overall understanding, noting consideration to localized wild rice, and WFN recommendations in scope and approach.
    b. SLR noted that implementation and identification of approach is targeted for 2026.
        i. IAAC inquired if wild rice that has been identified in Waterbody #1 is a preferred area by Indigenous communities?
            1. SLR noted that the location at current has not been.
        ii. IAAC inquired if there has been any dialogue to date around wild rice habitat compensation considerations with ANA or NWOMC, or LSFN?
            1. The location considered on Wabauskang Lake was informed also by LSFN, we are advancing dialogue with other communities currently.
        iii. IAAC asked as the information is being used as proxy, how are you considering the impact on ANA or NWOMC, if the assumption is that it is applicable?

1. SLR noted that we are still considering those residual impacts.

iv. IAAC inquired on wild rice accessibility to Rice Lake or Waterbody #6, is the loss of this considered in the IA?

1. SLR noted that this is considered as this is a downstream waterbody of the Project.

2. Trapline

a. SLR spoke to understanding and noted that access to the MSA will be limited, LSA access will not be restrained, and communication will continue. SLR noted that we will continue to engage with them to facilitate land use activities.

c. Additional Questions/Conclusion

i. When it comes to secondary source validation did ANA confirm that in writing?

1. Great Bear confirmed that no confirmation has been received from ANA, communication was via email.

a. IAAC notes that they are seeking reoccurring meetings with ANA to aid and facilitate discussions.

ii. IAAC notes that they are positive that dialogue is advancing. IAAC notes that the receipt and information contained is welcomed and they are happy with the progression.

iii. No follow up from IAAC, slide decks support dialogue for next week will be issued today.

Meeting closed at 1031 AM ET.

Topic	Question by IAAC	Response by SLR / Great Bear
Wild Rice – Cultural Importance	IAAC inquired if wild rice that has been identified in Waterbody #1 is a preferred area by Indigenous communities?	No, at present no specific location has been identified as a preferred wild rice area by communities.
Compensation Dialogue	Has there been any dialogue to date around wild rice habitat compensation with ANA, NWOMC, or LSFN?	The Wabauskang Lake site was informed by LSFN input; discussions with other communities are ongoing.
Use of Proxy Information	Since wild rice info is being used as proxy, how is the impact on ANA/NWOMC being considered?	We are actively considering residual impacts and validating assumptions through ongoing dialogue.
Waterbody Accessibility	Is the loss of access to wild rice in Rice Lake or Waterbody #6 considered in the IA?	Yes, these areas are downstream of the project and are included in the assessment.
Trapline Access	How will access be impacted?	Access to the MSA will be limited, but LSA access will not be restrained. Engagement will continue to support land use activities.
Validation of Secondary Sources	Did ANA confirm in writing that they do not validate secondary source information?	No formal written confirmation was received—communication occurred via email.

Topic	Question by IAAC	Response by SLR / Great Bear
ANA Engagement	What is IAAC's role with ANA moving forward?	IAAC is seeking recurring meetings with ANA to support dialogue and facilitate understanding.

4. Action Items
    a. Great Bear
        i. Great Bear to issue slide materials to IAAC for next weeks meeting by EOD.
    b. IAAC
        i. None at this time.

Dated: July 11, 2025

SLRCONSULTING.COM

Approach to Assessing Project Effects on Indigenous Peoples

July 2025

SLR

General Approach

SLR provided a list of secondary sources seeking approval for use in desktop assessment to all indigenous communities

- No response received from ANA. LSFN, WFN, NWOMC confirmed they would not validate secondary source information.

SLR provided a “typical TK memo” for consideration by communities in scoping their own project specific TK. Status of confidential information shared to date:

- LSFN/WFN – extract from “what we heard” report
- LSFN – interim TK (final anticipated Fall). Regional TK study also provided by LSFN
- WFN – final TK
- ANA – confirmed Land Use Study will not be available for 6-8 months
- NWOMC – interim TK (final anticipated summer)

General Approach (Cont.)

Health surveys

- Community feedback survey completed May 13 to June 19, 2024, targeting residents of Red Lake and Ear Falls; the survey, developed with WSP and SLR Consulting, received 186 responses (12.5% self-identified as Indigenous), aiming to understand local priorities related to health, well-being, and land use near the proposed mine site.

Socio-economic surveys

- SLR has completed off-reserve data collection (interviews with service providers). SLR also collaborated with NWOM prior to reaching out to service providers
- SLR worked collaboratively with LSFN and WFN to compile surveys and communities are collecting on reserve data that will be shared to inform the IS
- SLR provided surveys to ANA. ANA confirmed they did not want SLR to assist with collecting information on reserve

Pathways for Potential Effects

Water Pathway (GW and SW)

- **Project Activities** = Site preparation, groundwater management (UG and OP, seepage from mine rock and TMF), collection and treatment of all contact water, water taking and discharge
- **Mechanisms for Change** = Change in water quality, change in water quantity/flow
- **Mitigation** = Integrated water management plan (divert non-contact water, collection, treatment (BET), desulphurization of tailings, monitoring of runoff and seepage, recycle where possible)
- **Change Pathway Outcome** = Residual effects to water quality and quantity are anticipated to be localized. To obtain a permit from regulators GBR will be required to show compliance. Monitoring will also be a permitting requirement
- **Federal Valued Components** = changes to water will be considered as part of Fish and Fish Habitat, Migratory Birds and Indigenous Peoples as appropriate

Pathways for Potential Effects

- **Atmospheric Environment Pathway (Air and Noise)**
- **Project Activities** = Operation of equipment, drilling/blasting, development of roads and stockpiles
- **Mechanisms for Change** = Change in criteria air parameters, change in sound, change in vibration
- **Mitigation** = Dust management plan, blast management plan & monitoring, equipment maintenance programs, strategic mine scheduling to minimize travel times.
- **Change Pathway Outcome** = Residual air and noise emissions are anticipated to be in compliance with guidelines. To obtain a provincial permit GBR will be required to show compliance at the property boundary for air quality and noise will be in compliance at points of reception. Monitoring will also be required as part of the permitting process
- **Federal Valued Components** = Changes to air quality, sound and vibration will be considered as part Fish and Fish Habitat, Migratory Birds and Indigenous Peoples as appropriate

Pathways for Potential Effects

- **Terrestrial Environment Pathway (Vegetation and Wildlife/SAR)**
  - **Project Activities** = Site preparation, use of mobile equipment, operations
  - **Mechanisms for Change** = Change in habitat abundance, change in function/quality, change in mortality
  - **Mitigation** = Avoid sensitive seasons where practical, buffer zones (if applicable), reduce on-site vehicle speeds, habitat restoration/offsetting
  - **Change Pathway Outcome** = Residual effects are anticipated to be localized. To obtain a provincial permit GBR will be required to show compensation/offsetting and compliance
  - **Federal Valued Components** = Changes to the terrestrial environment will be considered as part of Migratory Birds and Indigenous Peoples as appropriate

Pathways for Potential Effects

Methylmercury
Stand alone Methylmercury Study Plan Report will address:

- Potential for methylmercury production to be caused by the Project, including due to biological and chemical processes downstream, and associated level of uncertainty
- Potential for any methylmercury produced to result in increased bioaccumulation in fish and associated level of uncertainty
- Potential for any methylmercury bioaccumulation in fish or production in water to impact human health due to species or water consumption

Human Health Ecological Risk Assessment (HHERA)

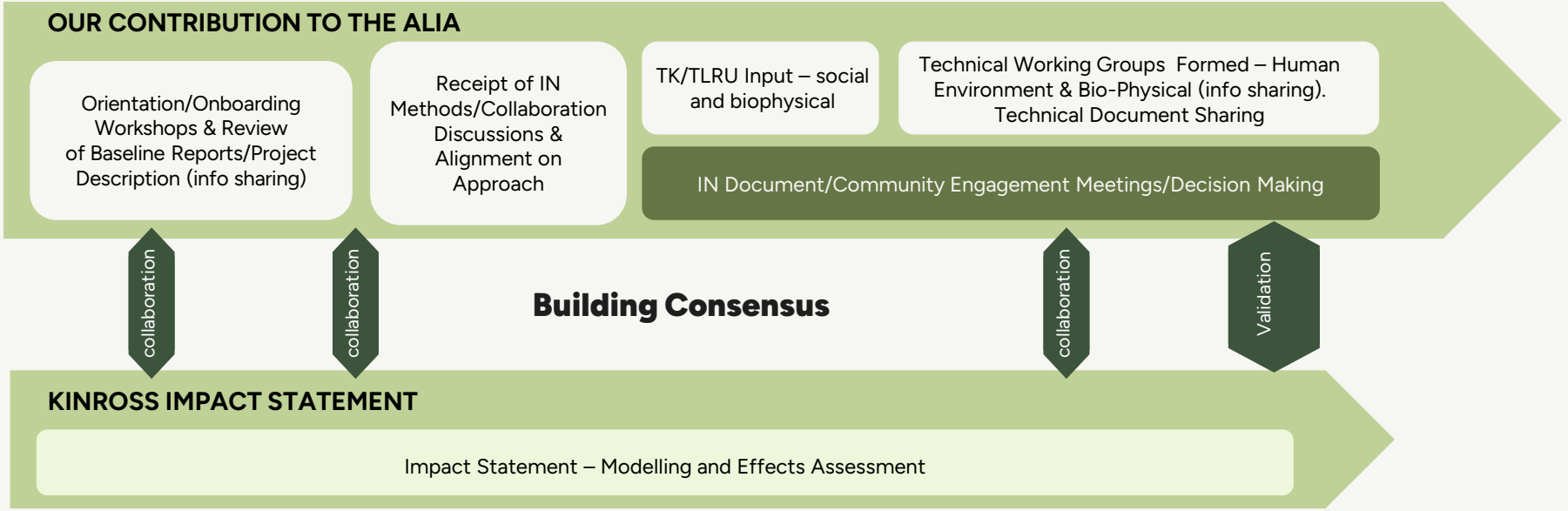
- HHERA will consider human and wildlife exposure to environmental media in the vicinity of the Project
- Anticipated pathways include soil, surface water, groundwater, air, Traditional Foods (wildlife, fish and vegetation)
- Assessment will characterize potential long-term risks for carcinogenic and non-carcinogenic constituents and include an inhalation assessment for short-term and long-term risks

Health Impact Assessment (HIA)

- HIA will consider Project-related effects on human health and well-being through a holistic determinants of health approach
- HIA will include inputs from other disciplines including the HHERA (biophysical) and Community Well-being (socio-economic)
- The assessment of health will be general to the northern Indigenous population, and not specific to individual Nations or communities
- Assessment will characterize potential effects across a wide range of determinants of health (positive and negative)

Federal Valued Components = Changes will be considered as part of Indigenous Peoples (Health) and Fish and Fish Habitat

Collaborative Approach with LSFN/WFN



Submission Timelines TBD – general alignment & understanding on Kinross conclusions prior to filing – consensus to keep advancing together

Collaborative Approach with NWOMC

- Great Bear Resources will draw on the information received and will engage with the NWOMC to validate Traditional Knowledge and Land Use Study (TKLUS) findings (biophysical and socio-economic).
- This validation process will be guided by continued dialogue and aligned with internal protocols established between Great Bear Resources and the NWOMC.

Conservative Approach - ANA

Implementing an approach based on our understanding of ANA perspectives and values, historical use areas based on Anishinaabe traditions and ties to the region, and utilizing available secondary sources.

Approach to assessment understanding of the interconnections between water, environment, and people, with a focus on the English-Wabigoon watershed

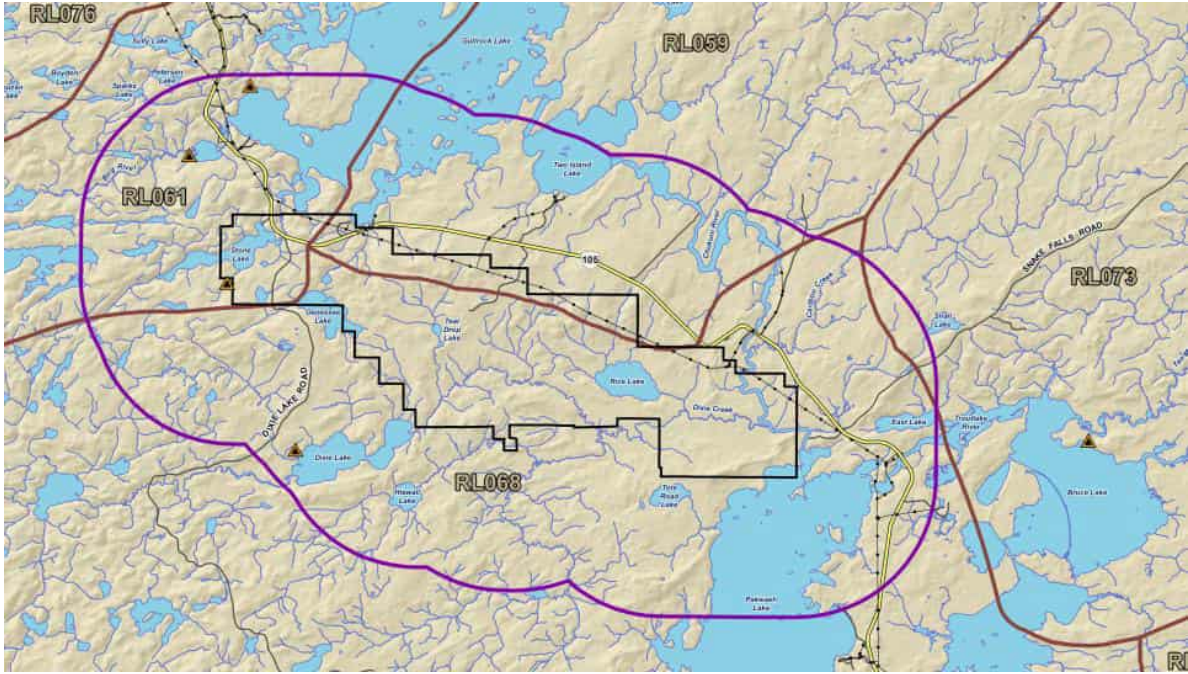
- Anishinaabe traditional use is based on seasonal rounds heavily reliant on waterways and wildlife habitat. Water is a central and crucial component of ANA cultural activity, heritage sites, gathering spaces and spiritual meaning.
- Acknowledging historical ties to WFN – indicative use information will be available from the proximal communities of WFN (as well as LSFN)
- Kinross are aware of a trapline ANA trapline holder member overlapping the Local Study Area

Key Topic(s) – Wild Rice and Moose

- Both Wild Rice and Moose will be assessed by WSP team as a separate pathway VCs and will feed into Indigenous Peoples (see terrestrial pathways slide).
- **Wild Rice Enhancement Project**: GBR has funded a study by Lakehead University, Northern Bioscience and Harris Ecological Consulting, upon the request of LSFN and WFN. The purpose of this study is to help address the loss of historic wild rice (Manomin) production on Wabaskang Lake. Potential effects on wild rice are also anticipated because of the GBR project at WB01. The enhancement study may also off-set potential effects at the project location. The wild rice enhancement location, on WFN reserve, has been recommended by the community. The study will develop potential enhancement options for implementation in 2026.

Key Topic(s) – Traplines/Access

LSFN Member	Trapline Area	RL059
LSFN Member	Trapline Area	RL068
ANA Member	Trapline Area	RL061



- Non-indigenous harvester on LSFN trapline – RL068
- There will be no access within the PA (the active mine site), due to safety. Access will be maintained to the LSA, via the existing road/trail network or planned forestry roads. (Note above figure shows lease area not active mine site)
- GBR will maintain regular communication with trapline holders regarding activities and opportunities to facilitate their land use activities (working with MNR and trapline license holders to determine alternative options for trapline losses)

KINROSS Great Bear

1. Executive Summary

Client Name:	Kinross Gold Corporation	**Project No:**	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	**Virtual [62]**	Hybrid [0]
Location:	Virtual		
Time:	100 PM ET – 200 PM ET		
Date:	July 15, 2025		
Executive Summary:	A multi-agency regulatory coordination meeting was held regarding the Kinross Great Bear Gold Project, led by the Impact Assessment Agency of Canada (IAAC). IAAC opened the session by outlining its facilitation role and approach to Crown consultation. Kinross and its consultants from WSP provided an overview of the Project, including its history, location, engagement with Indigenous Nations, and environmental baseline work. Key components such as site layout, mining methods, waste and water management strategies, and the phased approach to the federal Impact Assessment submission were presented. Federal and provincial agencies posed targeted questions on topics including Indigenous engagement, traditional knowledge integration, workforce capacity, fisheries compensation, heritage assessments, and economic modelling. Kinross and WSP provided responses and confirmed ongoing or planned efforts to address these areas. IAAC closed the meeting by outlining next steps, including upcoming technical sessions, and emphasized its commitment to a transparent and coordinated review process involving all relevant regulatory bodies.		
Key Actions:	a. Great Bear i. Great Bear to issue slide materials to IAAC for dispersion. b. IAAC i. None at this time.		

2. Attendance

Name	Agency
Campbell, Melanie	DFO/MPO
James, Clayton	DFO/MPO
Dafoe, Donna	ECCC
Hann, Carolyn	ECCC
Haskell, Blake	ECCC
Lehman, Jonah	ECCC
Parker, Nadine	ECCC
Maurice, Jason	EDSC

Bae, Eun Seon FEGC/WAGE

Kirby, Megan FEGC/WAGE

Kaushansky, Joel HC/SC

Pelletier, Pierre HC/SC

Chan, Elizabeth IAAC/AEIC

De Aquino, Carla IAAC/AEIC

MacRae-Maahs, Dietrich IAAC/AEIC

Martin, Ian IAAC/AEIC

McCrae, Carter IAAC/AEIC

Smith, Kiera IAAC/AEIC

Aaron MacDonell Kinross

Ashley Moncrief Kinross

Luke Crosby Kinross

Mac Potter Kinross

Connor Devereaux Kinross

Ryan Shaw Kinross

Abrazhevich, Anastasia

MCM Barboza, Karla MCM

Hamilton, James MCM

James, Clayton MCM

Evers, Andrew MECP

Francis, Stephanie MECP

lliam-Price, Jacinth MECP

Godwin, Amy L. MECP

Heggie, Shannon MECP

Mahon, Chris MECP

Saunders, Brooke MECP

Trudelle, May Lyn MECP

Welsh, Paul	MECP
Bennett, Neal	MEM
Hanson, Andrea	MEM
McCarthy, Raymond	MEM
Miller, Stephen A.	MEM
Robinson, Callee	MEM
Cole, Jacey	MNR
Huot, Taylor	MNR
Lockhart, Erik	MNR
Maxfield, David	MNR
Ouellette, Raven	MNR
Ouellette, Raven	MNR
Perchuk, Myles	MNR
Van Wynen, Alissa	MNR
Wilson, Josh	MTCG
Nickerson, Shawn	MTO
Nickerson, Shawn	MTO
Dixit, Aruna	NRCan
Martinez Melendez, Luz	NRCan
Fiona Christiansen	SLR
Craigs, Jeremy	TC/TC
Zimmer, Joey	TC/TC
Daniel, Sheila	WSP
Lindsay, Heather	WSP

Minutes

a. Introduction

i. IAAC opened the meeting noting approach with Crown.

ii. Kinross Great Bear provided an overview of team supporting Project, and external team members.

b. Presentation

i. Overview

WSP provided the overview of the presentation, noting the intent is to provide background, and understanding of the Great Bear Project. WSP noted that presentation will be issued to those attending.

2. WSP spoke to the history of the Project, noting its location, and ownership cycle. WSP highlighted transmission, pipeline, municipal boundaries, and provincial parks.

3. WSP highlighted overall engagement considerations and work with ANA, NWOMC, WFN, and LSFN. Noted that engagement occurred prior to the acquisition of Great Bear.

4. WSP noted that baseline has been completed. WSP noted the extensive collection was started prior to Kinross ownership, and have occurred across all facets considered for the Impact Assessment. Noted enhancement of sampling with water quality, aquatics (eDNA), and focus on methylmercury/mercury information.

5. WSP highlighted ongoing traditional knowledge inputs and studies underway noting these report will be integrated into the IA as appropriate.

6. WSP spoke to local topographic circumstances, and overall watershed dynamics.

7. WSP highlighted forestry considerations, and overall vegetation speciation. WSP noted SAR and terrestrial investigation methodologies including wolverine, bats, and migratory birds. WSP noted that there is no noted presence of Boreal Caribou, there is interest but no current determination of use.

a. No questions from Participants at this time.

ii. Project Description

1. WSP spoke to overview of site plan, noting consideration to the Advanced Exploration program. WSP noted overall timeframe, and employment considerations for the Project. WSP highlighted phases of development, and consideration to provincial regulations where applicable. The WSP noted open pit and underground phasing.

2. WSP spoke to mining methods, processing, and pre-mine considerations related to Viggo extraction.

3. WSP spoke to residual waste streams, noting tails, mine rock, and overburden. WSP noted acid generation potential with mine rock. WSP highlighted desulphurization circuit as a mitigation methodology. WSP noted that concentrate will be stored in Viggo pit permanently underwater. Noted that mine rock and overburden suitable for construction will be leverage as appropriate.

iii. Site Layout and Further Overview

1. WSP walked through overall general layout of the Project speaking to each component.

2. WSP highlighted water management considerations, including use of Viggo, and gravity dynamics considered. Fisheries compensation and access were highlighted.

3. WSP provided overview of effluent pipeline location to the Chukini River. WSP spoke to modelling efforts, and overall discharge considerations. Noting consideration to mitigation measures, and operational aspects.

a. IAAC inquiry on access road to the south of the Project?

i. WSP noted that Great Bear continues to engage with the SFL holder. Great Bear confirm this dialogue is continuing with the SFL and MNRF, this road is related to forest efforts not tied to the Project.

b. MTO inquired if the commercial aggregate operators have concerns with the Project.

i. WSP noted no concerns have been raised the operations are sand and gravel, noted consideration has been made to the transmission operator.

1. MTO noted consideration to blasting and interaction may be a consideration to MTO asset off Highway 105.

4. WSP continued overview and overall objectives of site plan, highlighted compact nature, treatment methodology, and camp considerations. WSP focused overview on treatment methodologies including consideration to membrane filtration.

iv. Submission and Documentation

1. WSP highlighted current activities ongoing, and documentation progressed to date, they highlighted permitting considerations across federal and provincial agencies.

2. WSP spoke to phased submission, noting initial Q3 onset of submission. Phase 1: Project Description, Alternatives, and other physical works, Phase 2: Effects Assessment Methodology, and assessment related to pathway components, noting that technical supporting documents will be issued at this time, Phase 3: summary of participation and engagement, changes to Indigenous peoples.

c. Questions and Follow Up

i. Health Canada inquire on the ALIA, and timeline for completion relative to the IA submission timeline.

1.Great Bear noted that the ALIA notes completion will be aligned to IA decision making framework. Technical inputs will be integrated into IA.

a. HC sought to confirm that TKLU will be integrated into assessment?

i. Great Bear confirmed.

ii. Health Canada inquired on capacity of work camp?

1.Great Bear confirmed numbers and modular nature up to 1000 – 1300 potentially based on phasing and construction needs.

iii. DFO inquiry on status of MAA and Fisheries and Compensation Planning, how much involvement has occurred with Indigenous Nations around plan?

1. Great Bear noted options have been presented to all Indigenous Nations. WSP noted that engagement is presented within the draft report. WSP notes that we can further highlight this in technical session as well. IAAC confirmed this in progress.

a. DFO confirms this is agreeable.

iv. The Ministry of Citizenship and Multiculturalism inquired on archaeological and built heritage and cultural assessment completed to date, noted consideration to current values collection and alignment.

MCM noted portage routes, traplines, and other activities that cultural heritage landscape influence and consideration. Noted potential and interactions on another Project. The MCM welcomes participating in this.

1. WSP noted that a significant amount of work has occurred to date, noted that no known portages have been identified.
2. IAAC confirms that potential for material review

v. Employment and Social Development Canada, does Great Bear believe that there is enough workforce, and skill development in the region.

a. Great Bear notes the challenges, and we are developing plans to support the Project and advancement.

i. ECSC inquired if this plan will be available?

1. Great Bear noted that this plan is still in development, noting that skill labor will be sourced across Canada.

vi. NR Canada inquired about positive economic impact, and approach in its development?

1. WSP noted that methodology will be similar to other Projects. Noted economist in house, accounting for economic modeling and description within the context of the report.

a. NRCan noted contributions to GDP and reflected locally and larger economy as well.

d. Closing

i. IAAC closed overall session, noting technical session approach and timing. IAAC noted water predictive modelling is the first session planned.

ii. IAAC noted the intent of these meetings, are to ensure that the Crown provides a clear avenue for dialogue and efficiency. IAAC welcomes input from all Agencies.

Meeting closed at 200 PM ET.

#	Agency	Question / Inquiry	Response
1	IAAC	What is the status of the access road south of the Project?	WSP: Road relates to forest operations; discussions ongoing with SFL holder and MNRF.
2	MTO	Any concerns from commercial aggregate operators near the site?	WSP: No concerns raised; assets are primarily sand and gravel. Blasting near Hwy 105 noted.
3	Health Canada (HC)	What is the status and alignment of the ALIA?	Great Bear: ALIA will align with IA decision-making; technical inputs will be integrated.
4	HC	Will TKLU be integrated into the IA?	Great Bear: Yes.

Kinross Great Bear / IAAC Meeting to Discuss Water Predictive Modelling/Fish Bioaccumulation and Risk/Exposure Model(s)

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [11]	Virtual [33]	Hybrid [44] – total for all
Location:	Virtual		
Time:	1200 PM CT – 300 PM CT		
Date:	July 17, 2025		
Executive Summary:	On July 17th, 2025, Kinross Great Bear hosted a technical engagement session with representatives from federal and provincial agencies to review the mercury and methylmercury assessment methodology for the Great Bear Project. The meeting focused on baseline studies, predictive modelling, and human health and ecological risk assessment. Technical presentations were provided by WSP and Hutchinson Environmental, outlining the current state of data collection and modelling design. WSP confirmed that baseline data collection is ongoing, including sampling of water, sediment, and fish tissue, and that regional consumption data and existing studies are informing the assessment. Hutchinson Environmental presented the structure of the methylmercury predictive model, which simulates sulphate generation, bioaccumulation, and downstream impacts across 23 connected waterbodies. The model uses conservative assumptions, is calibrated to annual average conditions, and will undergo sensitivity analysis to evaluate potential variability. Regulators posed questions on model assumptions, data inputs, and alignment with Indigenous knowledge and regional studies. Health Canada and ECCC requested clarification on risk assessment boundaries, cumulative effects, and incorporation of recent scientific literature. IAAC inquired about coordination with Indigenous data collection efforts and the approach to long-term impact modelling. Kinross confirmed that efforts are being made to align with Indigenous-led studies and that the model outputs will inform the broader impact assessment. The meeting concluded with agreement that Crown agency feedback would be submitted in the coming weeks, and Kinross committed to continued information sharing with regulators and Indigenous communities. Regulatory input will inform final model refinements ahead of submission to IAAC and other relevant authorities.		
Key Actions:	a. Great Bear i. None at this time. b. IAAC i. None at this time.		

1. Attendance – In Person/Company Representatives

Kinross Great Bear

- Mac Potter (Virtual)
- Connor Devereaux
- Aaron MacDonell
- Ryan Shaw

WSP

- Shelia Daniel
- Amy Elliot
- Karl Bresee

Hutchinson Environmental

- David Leeder (virtual)
- Joel Harrison

SLR

- Fiona Christensen (Virtual)

IAAC

- Dietrich MacRae-Maahs
- Carla De Aquino
- Carter MacRae

HC

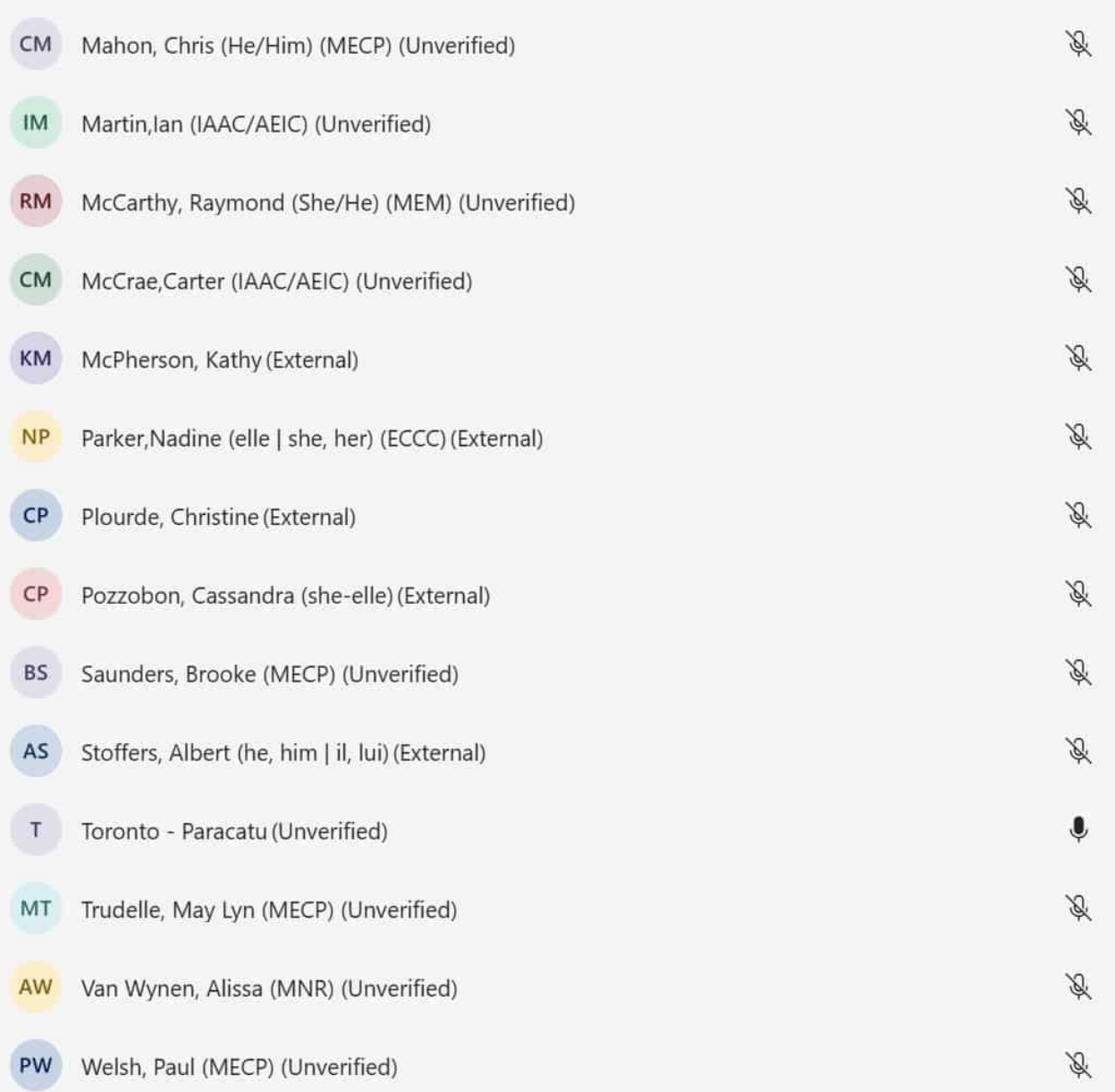
- Joel Kaushansky

Virtual Attendees/Regulators – See photos below

KINROSS Great Bear

- MP Mac Potter
- AM Aaron MacDonell
- MC Campbell, Melanie (DFO/MPO) (External)
- EC Chan,Elizabeth (IAAC/AEIC) (Unverified)
- CD Connor Devereaux
- DD Dafoe,Donna (elle | she, her) (ECCC) (External)
- DL **David Leeder (External)**
- CA De Aquino,Carla (IAAC/AEIC) (Unverified)
- DF Fell,Denise (elle | she, her) (ECCC) (External)
- FC Fiona Christiansen (External)
- SF Francis, Stephanie (MECP) (Unverified)
- JG Gilliam-Price, Jacinth (MECP) (Unverified)
- AG Godwin, Amy L. (She/Her) (MECP) (Unverified)
- BH Haskell,Blake (il | he, him) (ECCC) (External)
- DH Houle,Daniel (ECCC) (External)
- DH Hsu,Daisy (IAAC/AEIC) (Unverified)
- AI Iliescu, Alexandra (HC/SC) (External)
- CJ James, Clayton (DFO/MPO) (External)
- AK Khadilkar, Amole (he) (External)
- IK Khaldi, Imene (elle-she) (External)
- MK Koh, Meng (he-il) (External)
- HL Lindsay, Heather (External)
- DM MacRae-Maahs,Dietrich (IAAC/AEIC) (Unverified)
  Organizer
- CM Mahon, Chris (He/Him) (MECP) (Unverified)

KINROSS Great Bear



2. Agenda and Attachments

Presentation issued to IAAC, by Kinross Great Bear.

PDF

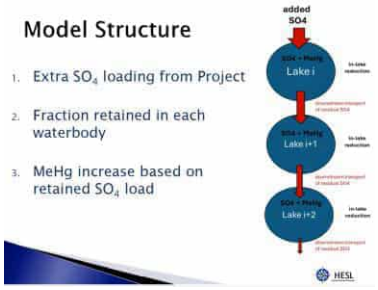
GBP_Proposed Bioaccum_Modelling_

2025-06-25_SO4-Me
Hg Model Approach f

2025-06-26_Great
Bear MeHg predictive

3. Minutes
    a. Introduction
        i. Kinross Great Bear provides team introductions and overview of overall assessment. Noted that presentation will be driven by teams from WSP, and Hutchinson.
    b. Meeting was hybrid in nature with regulators attending online, in-person was Aaron MacDonell, Ryan Shaw, Connor Devereaux, Shelia Daniel (WSP), Amy Elliott (WSP), Karl Bresee (WSP), Joel Harrison (Hutchinson), Dietrich MacRae-Maahs (IAAC), Carter McRae (IAAC), Carla De Aquino (IAAC), Joel Kaushansky (HC).
    c. Presentation
        i. Presentation – Great Bear Mercury Assessment Methods
            1. WSP noted consideration of baseline studies that are occurring on site. A general overview was provided of the Project location, and overview of overall Project components and discharge pathway.
            2. Baseline study was reviewed, noting consideration to methylmercury study plan integration and consideration to baseline inputs. WSP noted consideration to mercury sampling regime, acknowledging standard parameters are being captured as part of monthly sampling.
            3. WSP noted collection of sediment collection efforts, noted connection parameter wise to surface water quality monitoring considering alignment to scope and program.
            4. WSP spoke to fish tissue analysis efforts, and the overall effort level to date. WSP noted tailored efforts to address overarching concerns. WSP spoke to regional based assessments and desktop efforts in capturing regional fish consumption and mercury concentration information. WSP noted historical context of information, and the limitations of information.
        ii. Presentation – Methylmercury Predictive Modelling
            1. Hutchinson Environmental provided introductory statements around predictive modelling to sulphate and end user bioaccumulation considerations.
            2. Hutchinson highlighted how modelling considerations were built, noting clear expansion of modelling, accounting not only for inputs but spatial considerations. Hutchinson noted key modules of the model: stimulation of sulphate generation, bioaccumulation response, impacts to receptors.

3. Hutchinson noted that initial model design was simplified and detailed with understanding of all inputs, noting that model is a clear representation to sulphate accumulation and range and variability in the data. Hutchinson notes that modelling was assigned with conservative inputs, across several layers. Noting that several outputs will be protective, representing the potential uncertainty in the model itself.
4. SO4 Model Design:
    a. Noted consideration to mass-balance model. Annualized average was considered as the interaction between methylmercury perspective is a slow change and would allow for changes to be captured.
    b. Model Area:
        i. Pakwash Lake to and outfall to English River system, across 23 water bodies.
    c. Model Structure
        i. Hutchinson noted overall structure of the model, noting input and interests. Accounting for biologic inputs, and naturalized considerations such as porewater among other items.



        ii. Hutchinson noted consideration of inputs for AEX, and operational items. Hutchinson noted that background loading is fairly low, accounting this does not consider pre-contact.
        iii. Hutchinson presented empirical ratio for model, noted flow characteristics in waterbodies (residence time). Hutchinson noted that the overall retention time is not critical as an input, in the relative change of loading.
        iv. Hutchinson noted consideration to studies accounted for, and assumption of release of methylmercury release characteristics and conservative dynamics to ensure scaling factor can be considered.
        v. The model will be subject to a sensitivity analysis's as part of the efforts.
5. Questions
    a. ECCC inquired on annual average inputs numbers for sulphate concentration, on background.

i. WSP noted total values are derived from baseline numbers, so overall numbers are 200+. The WSP team notes that temporal variability inputs are considered from temporal and annual natural changes.

b. ECCC inquired on point factors considered to numerical/empirical relations and sulphate concentrations in waterbodies across waterbodies and retention dynamics? ECCC clarified an increase in sulphate concentrations would lead to an increase in biological capture, and retention timing.

i. Hutchinson agreed with perception noting that consideration to this, and modification to account could be considered. Hutchinson notes that even with considerations it may not create significant changes, the sensitivity analysis is like to capture. Consideratoin to this would result in alteration of bio-chemical model. WSP noted additional inputs across naturalized cycle and inputs other items across all inputs govern these inputs.

c. ECCC inquired on retention inquiry, and how is the fraction of return considered? ECCC notes the importance of iron input, and sulfate loading is not seen in the system.

i. Hutchinson noted that retention and overall loading will be low once inputs are entered. Sulphate yes, is moving through system quickly.

iii. Fisheries Bioaccumulation Factor and Consumption Rates

1. WSP spoke to bioaccumulation processes, and overall BAFs calculation metrics. WSP noted that measured inputs and comparison, the calculated BAFs are aligned with the current literature.
2. WSP highlighted empirical calculations noted inputs from Health Canada, and toxicity reference values including toddlers, and considering neurodevelopment.
3. WSP notes that approach to consumption metrics, and use of inputs and consumption rate metrics were proposed. WSP noted that study was only applicable to adults, toddler ratios will be at 50% ratio.
4. Questions
    a. Health Canada inquired on if efforts on consultation consideration to overall consumption data inputs?
        i. WSP confirmed this is ongoing, however efforts are underway and seek to validate these inputs.
    b. Health Canada inquired on Chan et al. update in 2021?
        i. WSP confirmed that this will be considered, and spoke to differences in study perspectives and information. The 2021 study accounts for other variability and frequency details. The study also provides other details around toxicologic data, and essential components.

c. ECCC inquire on length of modelling? ECCC inquires on cumulative considerations and how is this applied across the overall length of operations.
    i. WSP noted that the modelling would be aligned with water modelling, noting that modelling will be phases and aligned across assessment phases.
d. ECCC inquired that methylmercury transport considers timing, and phasing?
    i. WSP notes that HHERA will consider all segments across phasing of the Project. All segments and determination will be applied across the whole area.
    ii. Hutchinson noted consideration and importance of transport fish migration vs. a dissolved component within the water column.
e. ECCC can it not be transferred via dissolved metals?
    i. Hutchinson noted biological accumulation and transfer is the key, acknowledging yes it can but this is minimal in consideration.
    ii. Hutchinson noted that the model is a steady state condition. Hutchinson notes that steady state load and concentration in porewater vs. that with flux.
    iii. ECCC spoke to Branfireun report and consideration to rates. Have you looked at studying rates accounting for localized sediment and rates?
        1. Kinross Great Bear noted that we are completing this work now, Great Bear noted methological details to repeat the information.
        2. WSP reiterated different systematic issues in repeating work.
        3. Hutchinson spoke to consideration of other studies and conservatism in estimates.

5. ECCC what are the other elements that limit methylmercury production?
    a. WSP note it is several, however, calcium is driver. Kinross Great Bear noted treatment methodologies being proposed for site.

d. Additional Questions/Conclusion
    i. Great Bear noted the importance of these communications and input and feedback to IAAC as soon as reasonable
    ii. Hutchinson reiterated point and inputs require cross functional inputs and inputs.
    iii. Kinross noted that changes will be engaged following delivery of comments with internal team, and issue to IAAC and Crown officials. Kinross notes that model outputs will be issued and communication will be presented to Indigenous communities as appropriate.
    iv. IAAC noted that if feedback can be provided as soon as possible from Crown officials. IAAC welcomes this as soon as possible within the next week.
    v. MECP notes that comments will be issued on the modelling approach.

vi. ECCC notes that additional individual will provide comments by the first week of August, IAAC confirms this is appropriate.
vii. Kinross and WSP provide invitation to all those attending for questions related to prior presentation materials, no questions were posed for this.
viii. Questions
    1. Health Canada inquired how were the boundaries of the HHERA developed, was input received from Indigenous communities included, noting Pakwash?
        a. WSP affirmed boundaries are driven not only from water aspects, but other units, and inputs from methylmercury study plan.
    2. Health Canada inquired if we will see local study area, regional study area etc.?
        a. WSP and Hutchinson confirmed this will be clear in presenting the findings, as aligned with the IA.
    3. IAAC is seeking clarity on approach to data collection, is Kinross Great Bear capturing additional data in support of the information.
        a. WSP and Kinross reiterate that additional data can be collected if there is value in this. LSFN/WFN are also collection data.
    4. IAAC asked if cumulative efforts of LSFN/WFN are the same methodology wise?
        a. Kinross confirmed that in funding the program we ensured this was the case.
    5. Health Canada inquired if there are plans to study fish tissue concentration information closer to end receiver in ANA?
        a. WSP noted we have inquired with MECP for data set. MECP response is still pending. Collection of information can occur pending approval from regulatory authorities.
    6. Health Canada inquired on what activities are occurring with Advanced Exploration right now?
        a. Kinross Great Bear spoke to construction efforts to date, noting permitting timeline and approvals pending. Great Bear notes that discharge timeline is still variable. Great Bear noted that treatment chain is like main project, apart from membrane filtration.
    7. ECCC inquired if model can predict outputs in 26 years, in addition to other availability of critical uptake or concentration factors? Can we consider shifts in biological community based on shifts in overall pattern of food web, and sulphate and calcium additions.
        a. WSP/Hutchinson noted that model does consider these inputs, and communication will be provided to those who are evaluating aquatic life components.

Meeting closed at 132 PM CT.

4. Questions

Regulator	Question	Response
ECCC	What are the annual average input numbers for sulphate concentration (background)?	WSP noted total values are derived from baseline numbers (~200+), considering temporal and annual variability.

ECCC	Are empirical relationships and retention dynamics considered for sulphate concentration across waterbodies?	Hutchinson acknowledged the point and noted sensitivity analysis would capture such variations; WSP referenced additional inputs.
ECCC	How is retention factored in, particularly with iron inputs and low sulfate loading?	Hutchinson noted that retention and loading are low; sulphate moves quickly through the system.
Health Canada	Has consultation occurred to validate consumption data inputs?	WSP confirmed efforts are ongoing to validate consumption inputs with communities.
Health Canada	Will the 2021 Chan et al. study be considered?	WSP confirmed it will be considered and noted methodological differences.
ECCC	How long is the model run? Are cumulative effects considered over project life?	WSP stated that modelling will be phased and aligned with water modelling.
ECCC	Does methylmercury transport consider timing and phasing?	WSP confirmed HHERA considers all phases; Hutchinson added fish migration is a key factor.
ECCC	Can methylmercury be transferred via dissolved metals?	Hutchinson noted yes, but it's minimal; model is steady-state with porewater vs. flux considerations.
ECCC	Have you reviewed Branfireun sediment rate studies?	Kinross, WSP, and Hutchinson acknowledged and confirmed ongoing and comparative work.
ECCC	What limits methylmercury production?	WSP noted multiple factors, with calcium as a key driver; Kinross confirmed treatment methodologies.
Health Canada	How were HHERA boundaries defined? Was Indigenous input considered (e.g., Pakwash)?	WSP confirmed boundaries include water and other units, guided by the methylmercury study plan.
Health Canada	Will results be shown across local/regional study areas?	WSP and Hutchinson confirmed that findings will be aligned with IA definitions.
IAAC	Is Kinross collecting additional data in support of this assessment?	WSP and Kinross confirmed more data could be collected as needed; LSFN/WFN are also collecting data.
IAAC	Are LSFN/WFN cumulative studies methodologically consistent?	Kinross confirmed consistency ensured through project funding.
Health Canada	Will fish tissue concentration data be studied downstream near ANA?	WSP confirmed inquiry with MECP; collection pending regulatory approval.
Health Canada	What activities are currently underway for Advanced Exploration?	Kinross confirmed construction is ongoing; permitting timelines and treatment chain noted.
ECCC	Can the model predict 26-year outputs and ecological shifts?	WSP and Hutchinson confirmed model includes these parameters; updates will be shared for aquatic assessment.

5. Action Items
    a. Great Bear
        i. None at this time.
    b. IAAC
        i. None at this time.

Dated: July 17, 2025

Kinross Great Bear / IAAC Touchpoint Meeting

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [9]	Hybrid [0]
Location:	Virtual		
Time:	1000 AM ET – 1030 AM ET		
Date:	July 18, 2025		
Executive Summary:	Impact Assessment Agency of Canada (IAAC) and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. IAAC provided an update that expert technical reviewers are still being finalized, with strong interest noted. IAAC emphasized the importance of transparent communication with Indigenous communities and confirmed they will notify Great Bear before any outreach. Great Bear confirmed that materials shared with the Crown will also be provided to Indigenous communities, though no direct outreach has occurred yet. Both parties acknowledged that a single coordinated review is unlikely due to logistical challenges, and that different approaches may be needed for ANA and NWOMC. IAAC noted ANA's Land Use and Occupancy Study may be shared by year-end and encouraged its inclusion in future IA packages. SLR confirmed this could be integrated, depending on timing and significance. Great Bear agreed, noting schedule implications will be considered. Great Bear raised concerns about receiving timely feedback from regulators. IAAC committed to follow up with ECCC, NRCan, and MECP to confirm comment delivery and will share NRCan correspondence. Great Bear confirmed availability outside the workplan to support dialogue and requested confirmation of ECCC's representative availability in August. IAAC will follow up. Great Bear also confirmed upcoming responses to ANA on the Methylmercury Study Plan. Key Words: ANA, Methylmercury, Mercury, Modelling, ANA		
Key Actions:	a. Great Bear i. TBD b. IAAC i. TBD		

1. Attendance

Kinross Great Bear

- Mac Potter
- Connor Devereaux
- Ashley Moncrief

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Valerie Williams
- Daisy Hsu
- Ian Martin
- Dietrich Maahs

2. Agenda and Attachments

None provided.

3. Minutes
    a. Updates
        i. IAAC noted that ETR experts are still being determined. Noted experts' strong interests, continued discussion around logistics.
    b. Indigenous Update
        i. IAAC spoke to continued dialogue and input and the importance of communication around efforts. IAAC inquired on overall approach of Great Bear and if planning is underway?
            1. Great Bear notes that we have not reached out to Indigenous communities, Great Bear stated that materials provided to Crown will be issued to all communities. Noting that collaborative avenue accounting for whole government review team is not realistic due to the need for several meetings and challenging logistics.
        ii. Great Bear and IAAC agreed on the milestone in meeting targets and communication on these briefings to communities. IAAC noted that they will be providing a transparent overview of dialogue, letting Indigenous parties know that these meetings are underway. IAAC notes they will communicate with Great Bear when they will be reaching out to all Indigenous communities.
            1. Great Bear inquired if IAAC technical team can support dialogue with Indigenous communities?
                a. IAAC confirmed they can support if required. IAAC notes that if it is to the advantage to be there, we welcome the opportunity. Note to consider ANA meetings to ensure narrative is consistent.
            2. Great Bear notes that alignment with ALIA is likely and support likely will be sought, however, we are looking at communications immediately. Great Bear noted community dynamic with NWOMC and ANA will result in different approaches.
    c. Effects to Indigenous Peoples

i. IAAC spoke to ANA efforts in preparing the Land Use and Occupancy Study, noting that sharing information may be received by the end of the year. If that is the case, is there an opportunity to consider this information in later submission packages of the IA?
    1. SLR affirmed that this can be considered, the information would be supplementing the findings, noting the information if significant (we are taking a conservative approach) it will be integrated as best as possible.
    2. IAAC noted that they would like Great Bear seek with ANA timing to ensure inclusion of information and delivery of information in a reasonable timeline. If IAAC receives information, it will be taken into consideration as well.
        a. Great Bear agrees and notes that if ANA is reasonable in delivery we will have to review the approach, with consideration to the overall schedule.

d. Key Issue Briefings
    i. Great Bear acknowledge prior meeting discussion and delivery of comments. Great Bear would like to circle back on how do we push regulators to provide dialogue and feedback. Great Bear would like to ensure that feedback is considered, and we are not advancing aspects with red flags prior to submission.
    ii. IAAC agrees we would like to ensure this as well, IAAC will be speaking with the government review team. IAAC to reach out to ECCC, NRCan, and MECP to ensure that comments are delivered or confirm in the case of no comments providing this guidance. IAAC to provide NRCan communication to Great Bear. IAAC notes this is a shift in approach, and we will lean on reviewers to provide comments.
    iii. Great Bear reiterates that we are available outside of the workplan to provide information, welcome dialogue as required to enable Crown officials. Great Bear would like to confirm ECCC representative returns to office first week of August?
        1. IAAC noted that they will touch base with ECCC touchpoint and confirm. If anyone is seeking additional guidance we will reach out.

e. Methylmercury Study Plan
    i. Great Bear confirms responses to ANA on the Methylmercury Study Plan will be issued shortly.

Meeting closed at 1020 AM ET.

4. Action Items
    a. Great Bear
        i. To issue Methylmercury Study Plan comments once finalized.
    b. IAAC
        i. To reach out if required related to technical briefing calls.
        ii. IAAC to provide NRCan communication to Great Bear.

Dated: July 18, 2025

GREAT BEAR PROJECT

IMPACT STATEMENT SECTION 8: FISH AND FISH HABITAT

July 2025

INTRODUCTION

Great Bear Project (Project) is a proposed northwestern Ontario mining project. An Impact Statement is currently in preparation.

Fish and fish habitat is included as a federal Valued Component (fVC) for the Project because of the identified importance of fish as a resource to Indigenous and non-Indigenous land users; and the established federal regulatory jurisdiction over fish and fish habitat.

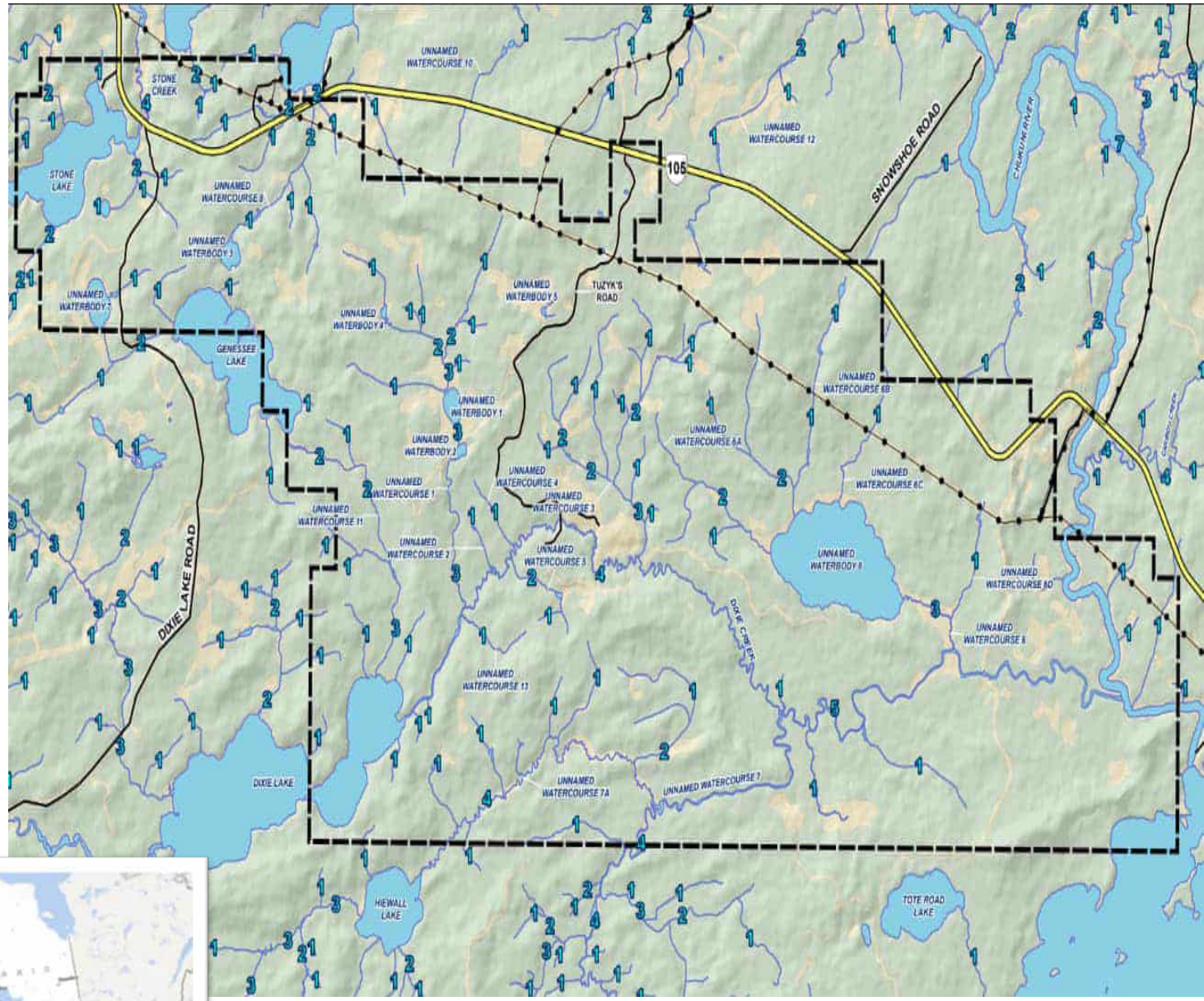
Fish and their habitats are **key endpoints to assess and monitor the overall health of the aquatic ecosystem** as they reflect potential interactions with other supporting pathway components.

This fVC includes fish, the habitat that supports these fish, and the health of these fish populations.

Photo: Pakwash Lake

PROJECT LOCATION AND POTENTIAL EFFECTS

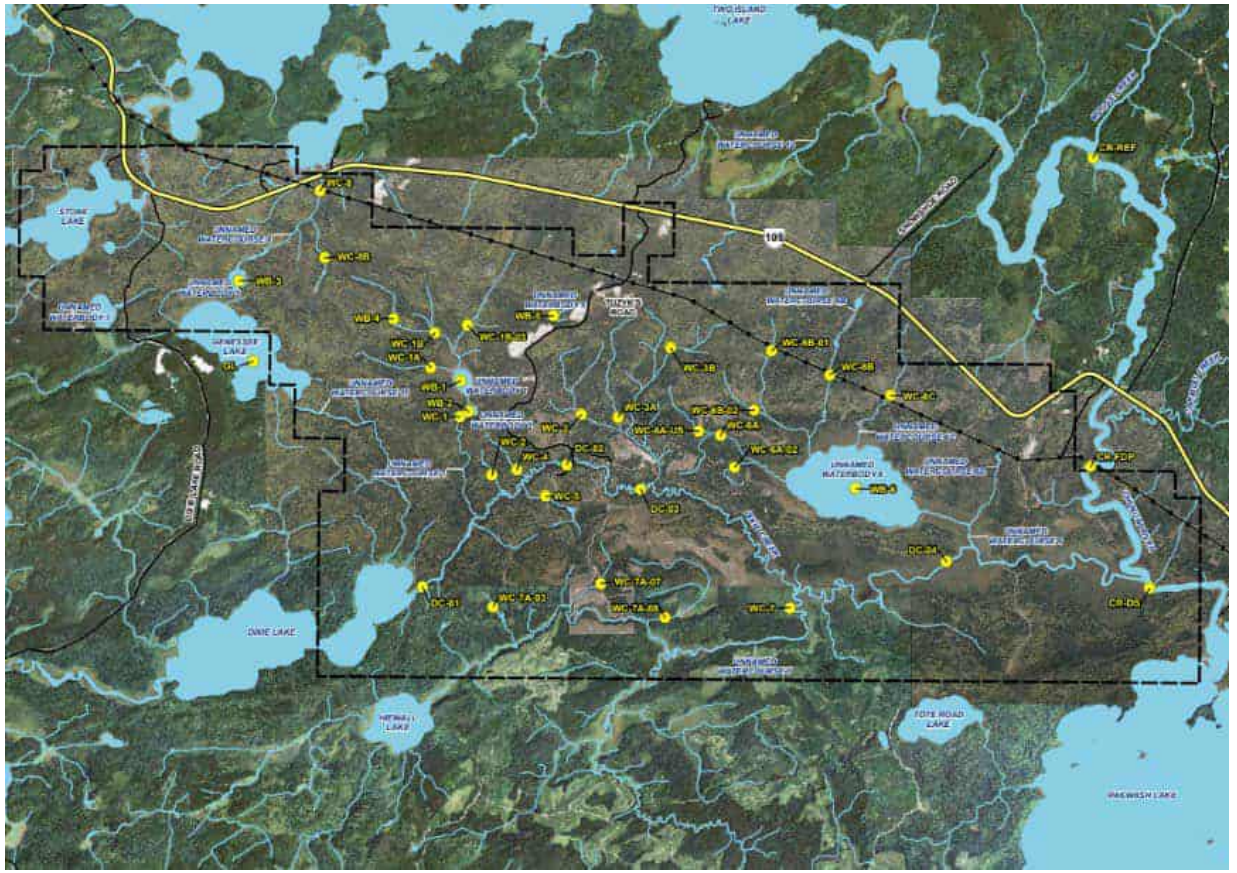
- The Project is located about 25 km from Red Lake, ON
- Several waterbodies and watercourses will be potentially affected by the Project where Harmful Alteration, Disruption or Destruction (HADD) to fish and fish habitat would occur or where the deposition of mine waste may require that natural waterbodies be listed on Schedule 2 of the MDMER.



BASELINE SUMMARY

BACKGROUND AND ENVIRONMENTAL SETTING

- Project-specific baseline monitoring field programs were conducted over multiple years and seasons:
  - Spring, summer and fall 2022, 2023 and 2024
  - Winter 2025.
- Project specific aquatic baseline sampling included: fish community assessments including eDNA sampling, fish habitat assessments, fish tissue collections, lake profile measurements, bathymetry measurements, sampling for zooplankton, periphyton, and benthic invertebrate community), water and sediment quality sampling.
- Secondary source data: MNR BSM data 2008 to 2012, 2013 to 2017 and 2018 to 2024.



PROJECT AREA WATERBODIES

- Project habitats range from diffuse flow paths to well defined permanent creeks to large regional rivers. These drainages connect pond and lake type features that also range in size and depth.
- Habitats were characterized by homogenous habitat types using stream order, fish presence and availability of habitats and their specific characteristics (i.e., substrates, riparian and in-water vegetation, channel morphology etc.).
- 9 watercourse habitat types and 3 waterbody habitat types were applied.

Photo: Waterbody 3

PROJECT AREA WATERBODIES - LAKES AND PONDS

TYPE A

Permanent, shallow inland lake / pond habitat

Shoreline vegetation varies between extensive floating mats of herbaceous species

Substrates mostly of fine-grained sediment and localized sections with boulder, cobble and/or sand

TYPE B

Permanent, small, deep inland lake habitat

Support a variety of forage fish and large body / sport fish

Shoreline vegetation varies between extensive floating mats of herbaceous species and localized sections with substrates of boulder, cobble and/or sand

TYPE C

Permanent, large lake habitat

Shoreline mostly bedrock / boulder substrate, with some and shallow nearshore soft sediments commonly at tributary inflows

PROJECT AREA WATERCOURSES

TYPE D

Ephemeral, low lying area with diffuse pockets of standing water

Sections of complete loss of channel, can transition into muskeg drainage, overland drainage flow path or underground flow

TYPE E

Intermittent, little to no floodplain with dense shrub riparian vegetation

Steep banks

Substrates consisting of primarily bedrock, boulder and cobble with coarse wood debris

TYPE F

Permanent, moderate beaver activity creating alternating series of pools / impoundments

Side overflow channels created during high flow and stream stage events

Abundant coarse wood debris

TYPE G

Permanent, broad floodplain with extensive floating mats of herbaceous species typical of muskeg and beaver ponds / impoundments

Primarily flat morphology with occasional pools in the thalweg of meander bends and back bays of the channel

TYPE H

Permanent, moderate river with broad floodplain

Primarily flat morphology with occasional pools

Commonly occurring as main connecting channels between inland waterbodies

TYPE I

Permanent, large river with moderate flow with occasional fast flowing riffle / rapids habitat and steep banks

Soft fine-grained substrate with some localized boulder and cobble, as well as exposed bedrock

FISH HABITAT ASSESSMENT METHODS

- Habitat assessments were conducted at representative locations during the 2022 to 2024 field studies. Habitat types were classified based on watercourse or waterbody type, permanence, and stream order.
- Several stream characteristics were measured at riverine habitats including bankfull and wetted measurements, substrate composition, dominant riparian types, and included in-field surface water quality measurements (temperature, pH, specific conductivity and DO).
- Bathymetry surveys were completed in 2022 and 2024 at WB-2, WB-6, including for the Chukuni River. Surveys included perimeter transects and cross-waterbody transects at approximately 150 to 200 m spacing following perpendicular pathways using a Lowrance Live Sonar.
- Desktop habitat suitability modeling was completed using the Habitat Evaluation Procedure to determine quality of the habitats present

Photo: Pakwash Lake

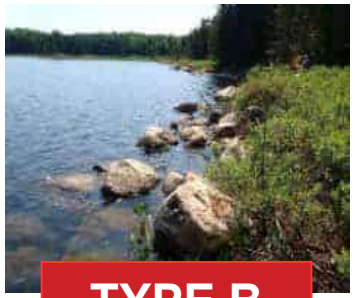
FISH HABITAT ASSESSMENT RESULTS

- Identified 9 different habitat types ranging from permanent, large lakes and riverine habitats to ephemeral streams.

TYPE A

WB-1
WB-4
WB-5
WB-6

233 ha
WSA 167 ha



TYPE B

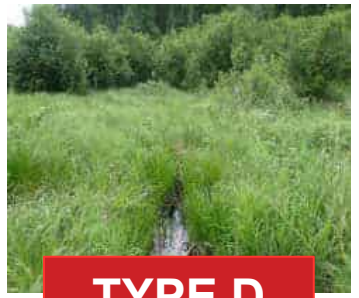
WB-2
WB-3
WB-5
WB-6

11.8 ha
WSA 7.7 ha

TYPE C

Gullrock Lake
Genessee Lake
Pakwash Lake

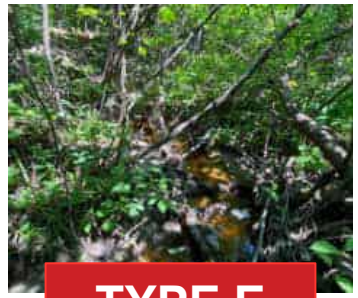
15,243 ha
WSA 12,258 ha



TYPE D

WC-1A
WC-1B
WC-1B-03
WC-6A-01
WC-6A-02

3 ha
WSA ~2 ha



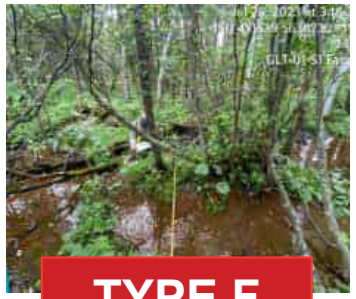
TYPE E

WC-2
WC-3A
WC-3B
WC-6A
WC-6B
WC-6B-01
WC-6C
WC-7A-03
WC-7A-07
WC-7A-08

14.7 ha
WSA 9.8 ha

FISH HABITAT ASSESSMENT RESULTS

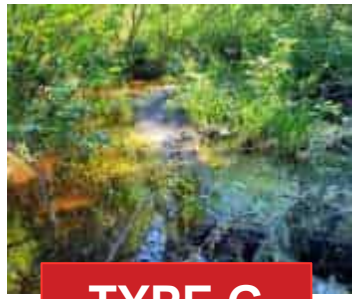
- Identified 9 different habitat types ranging from permanent, large lakes and riverine habitats to ephemeral streams.



TYPE F

WC-1 **WC-6C**
WC-4 **WC-8**
WC-5 **WC-8B**
WC-6B-02

4.1 ha
WSA 2.9 ha



TYPE G

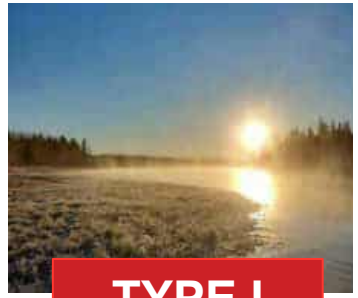
WC-1A
WC-7

8.4 ha
WSA 7.1 ha

TYPE H

DC-01
DC-02
DC-03
DC-04
WC-3

52.5 ha
WSA 48 ha



TYPE I

CR-REF
CR-FDP
CR-DS

280 ha
WSA 225 ha

FISH COMMUNITY STUDIES

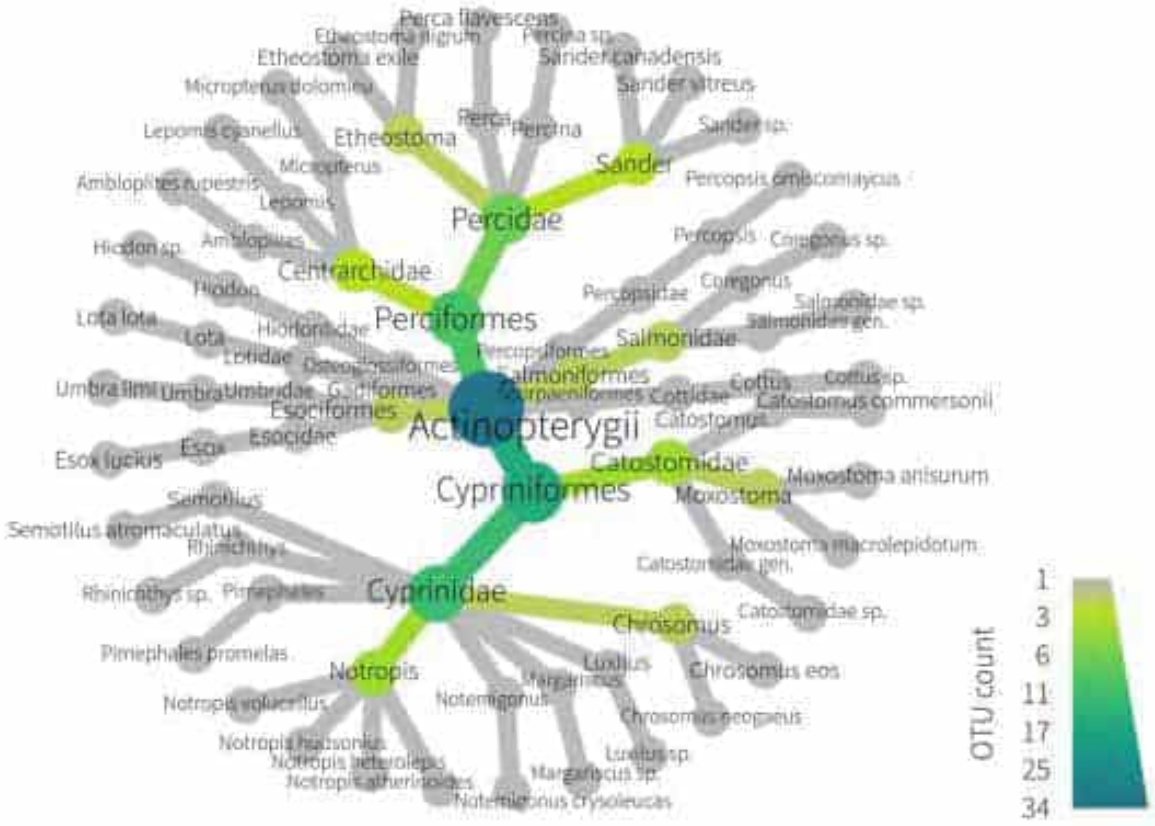
- Fish community surveys were completed in spring, summer, and fall in 2022, 2023 and 2024. Gear types were used included: Angling, backpack / boat electrofishing, minnow traps, dip netting, gillnets and seine nets.
- Environmental DNA sampling, collected using a non-intrusive water sample.
- The MNR conducted three cycles of Broad-Scale Monitoring (BsM; Sandstrom et al. 2013) surveys in Gullrock and Pakwash lakes.
- The BsM surveys, which employ whole lake depth stratified sampling with small and large mesh gillnets, were completed in 2009, 2014 and 2019 (MNR 2024).

FISH COMMUNITY RESULTS

- Fish were captured or determined through eDNA sampling to be present in all waterbodies and watercourse of the Project Area with few exceptions.
- Brook Stickleback and Common Mudminnow were the most prevalent species of the Project area occurring in >20 areas sampled.
- Other common species included Finescale Dace, Northern Redbelly Dace, Northern Pike, White Sucker and Yellow Perch.

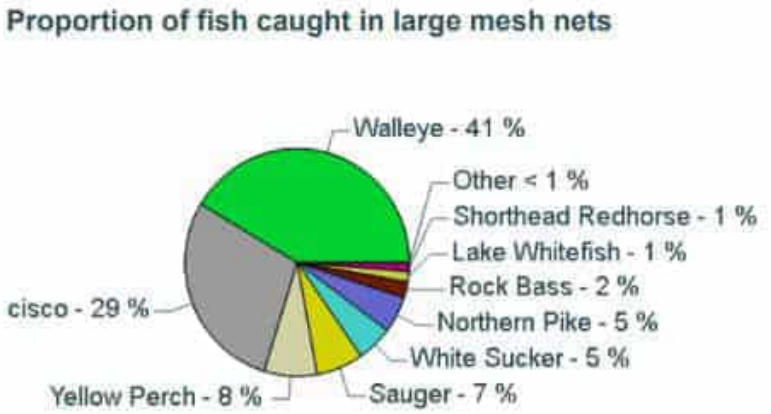
EDNA RESULTS

- Results demonstrated fish presence in some areas where traditional sampling techniques did not capture fish; good supplemental technique to traditional studies.
- Dominant species determined from the eDNA sampling include Walleye, Darters, Cyprinids-Shiners, Dace, minnows, White Sucker, Northern Pike etc.
- No sampling locations fish community data relied solely on eDNA results.
- Detected invasive species but no Species at Risk.

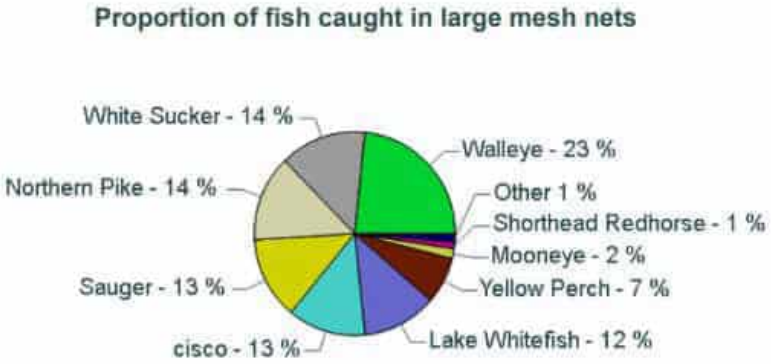


MNR BROADSCALE MONITORING RESULTS

- BSM completed at Gullrock Lake August 2019, Pakwash Lake June 2009, 2014 and 2019.
- Gull rock lake was dominated by Walleye and Cisco.
- Additional fish species captured in Gullrock Lake in small mesh nets were Emerald Shiner, Rainbow Smelt, Spottail Shiner and Trout-perch.
- Invasive species were captured- spiny water flea in Gullrock Lake.
- Pakwash Lake was dominated by Walleye with a more balanced reminder of the community Cisco, Lake Whitefish, Northern Pike, Sauger and White Sucker.
- No invasive species were captured in Pakwash Lake.



Gullrock Lake 2019



Pakwash Lake 2019

Project Fish Communities

Forage and Baitfish

- Blackchin Shiner
- Blacknose Shiner
- Bluntnose Minnow
- Brook Stickleback
- Central Mudminnow
- Common Shiner
- Emerald Shiner
- Fathead Minnow
- Finescale Dace
- Golden Shiner
- Iowa Darter
- Johnny Darter
- Lake Chub
- Mimic Shiner
- Northern Pearl Dace
- Northern Redbelly Dace
- Rainbow Smelt
- Silver Redhorse
- Shorthead Redhorse
- Slimy Sculpin
- Spottail Shiner
- Trout Perch
- White Sucker

Intermediate Sportfish

- Burbot
- Cisco
- Rock Bass
- Yellow Perch
- Mooneye

Top Trophic Level Sportfish

- Walleye
- Lake Whitefish
- Northern Pike
- Small Mouth Bass
- Muskellunge
- Lake Sturgeon
- Lake Trout

INLAND PONDS AND CREEKS → INTERMEDIATE CREEKS AND LAKES (Dixie Creek/ Waterbody 6) → LARGER RIVERS AND LAKES (Chukuni River / Pakwash Lake

FISH TISSUE COLLECTIONS AND RESULTS

- Fish tissue samples for contaminant analysis included skinless, boneless left dorsal epaxial muscle tissue for large-bodied species.
- Large-bodied sentinel fish species retained for tissue analysis during the field studie included: Cisco, Lake Whitefish, Northern Pike, Silver Redhorse, Walleye, White Sucker and Yellow Perch.
- Composite samples of Brook Stickleback, Central Mudminnow, Finescale Dace, Iowa Darter, Lake Chub, Northern Redbelly Dace, Spottail Shiner, and Yellow Perch were submitted for analysis to represent the small-bodied fish species community.
- Fish tissue samples were submitted to ALS Environmental (Thunder Bay, Ontario) for total metals including mercury, methylmercury, and selenium, as well as percent moisture.
- Top level predators showed higher Mercury concentrations in tissues. Although all tissues were below the guideline values.
- All metals were below the tissue guidelines with the exception of methylmercury when compared with the CCME guideline of 0.033 mg/kg for the protection of wildlife consumers of aquatic biota.

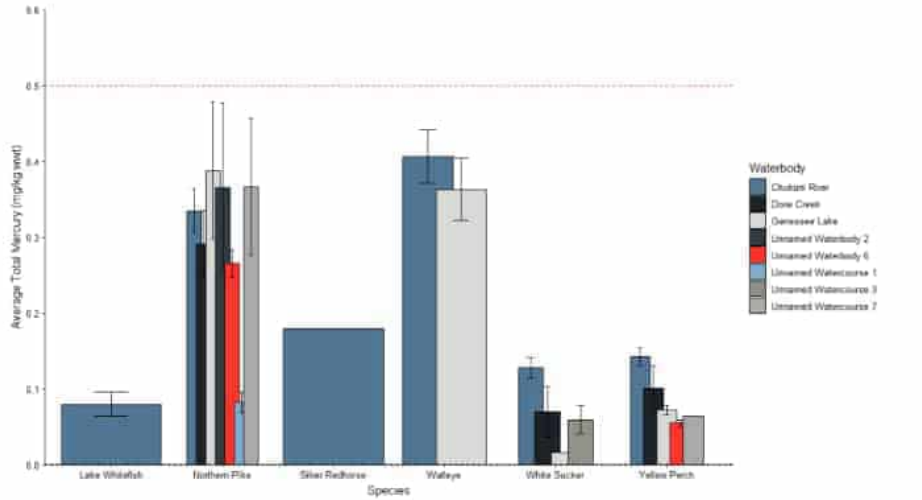


Figure C1-7: Average Total Mercury Concentration (± standard error; mg/kg wwt) in Large-bodied Fish Tissue

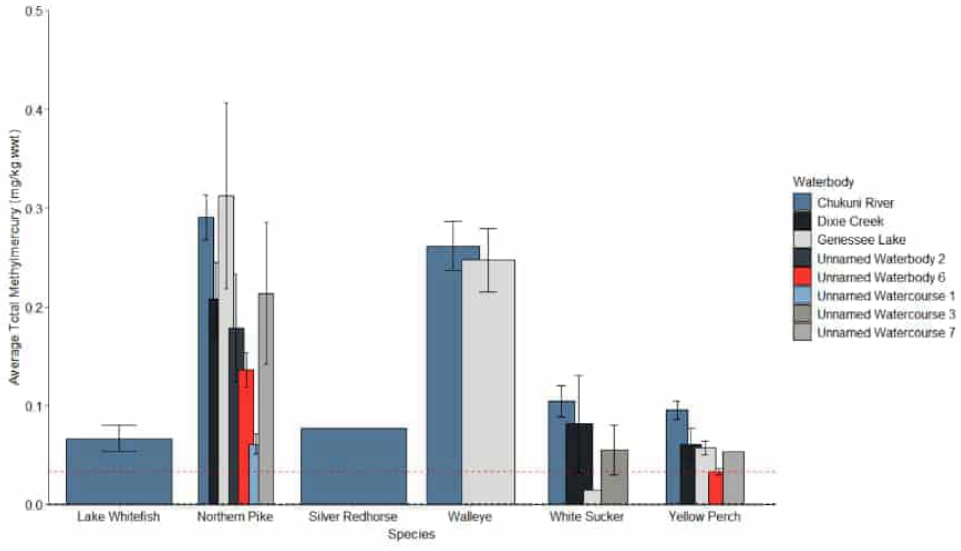
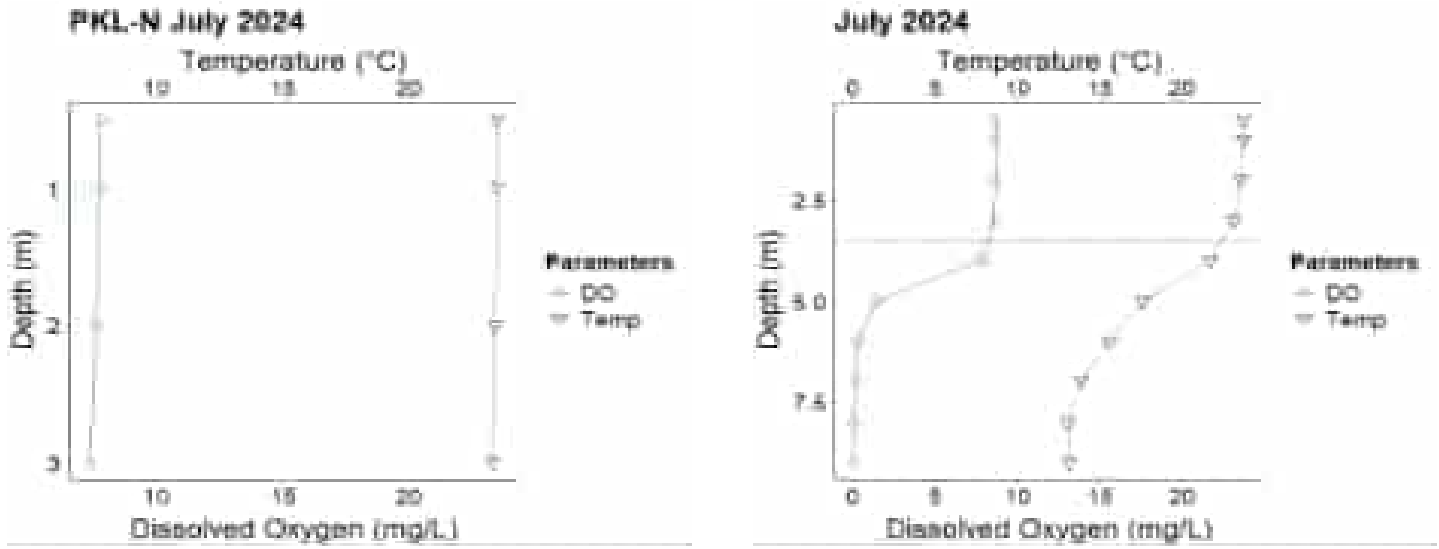


Figure C1-8: Average Total Methylmercury Concentration (± standard error; mg/kg wwt) in Large-bodied Fish Tissue

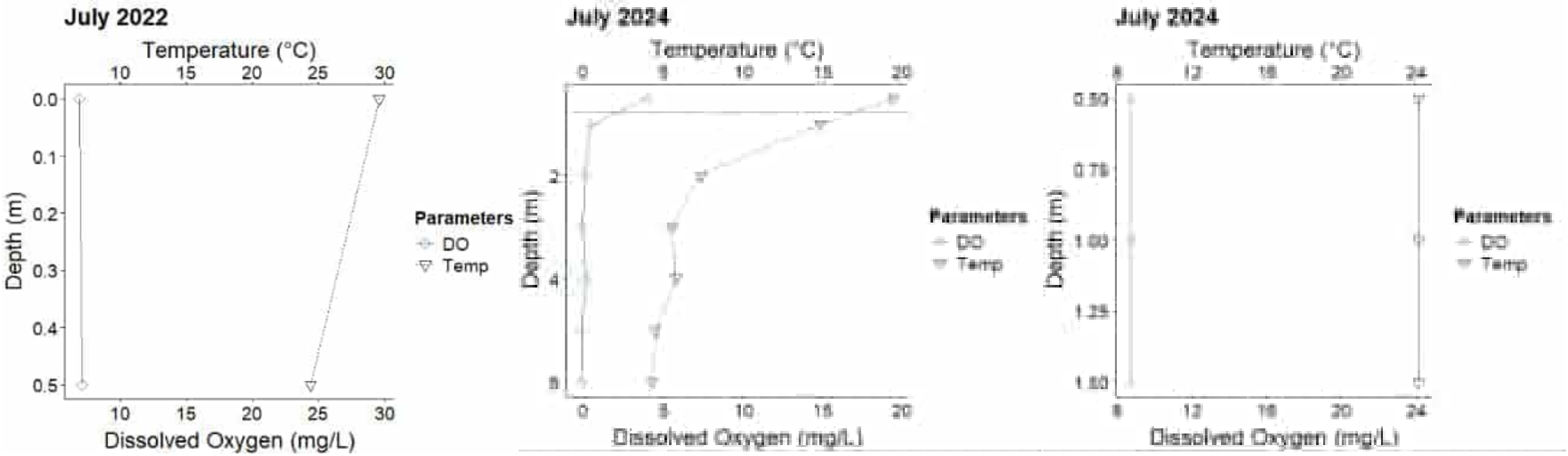
SURFACE WATER STUDIES

- Lake profile data including temperature and DO measurements at depth within the spring, summer, and fall sampling programs were used to graph seasonal differences.
- In-situ surface water quality (physicochemical) measurements were recorded at each sample location using handheld portable water quality meters.



Summer profiles collected from Pakwash Lake (left) and Genessee Lake (right).

SURFACE WATER STUDIES



Summer profiles collected from Unnamed Waterbody 1 (left), Unnamed Waterbody 2 (centre) and Unnamed Waterbody 6 (right).

LOWER TROPHIC AND PRIMARY PRODUCTIVITY ASSESSMENT

- The lower trophic and primary productivity assessments evaluated eutrophication indicators at the zooplankton level by biomass and periphyton by contaminant level and carbon and nitrogen isotopes.
- Zooplankton were sampled using a 0.13 m diameter, 63 µm mesh Wisconsin plankton net with a detachable collection bucket (codend) to collect samples from the water column.
- Periphyton were collected during the fall 2023 and 2024 field programs from natural and artificial substrate. A scraping guide was used to outline a known surface area (5 cm x 5 cm) on each rock and all periphyton biomass within was removed.
- Benthic invertebrates were collected using a petite Ponar grab sampler at 3 replicate stations within each sampling location during the fall sampling programs.

LOWER TROPHIC AND PRIMARY PRODUCTIVITY RESULTS

- Zooplankton species found in higher densities, include Ploima, Diptera, Diplostraca and Cyclopoida.
- Greatest zooplankton biomass was consistently found during the spring and fall sampling events.
- Zooplankton results remained relatively consistent across sampling years with 2024 yielding slightly higher abundance by biomass.
- Periphyton samples from Chukuni River showed highest δ13C ratio from all the sites.
- Total invertebrate density was found to be highest within the unnamed watercourses within both years.
- Taxa richness was consistent across all sites and sampling years.
- Percent EPT taxa was found to be lowest within the unnamed watercourses and highest within the larger riverine watercourses.

SEDIMENT QUALITY METHODS AND RESULTS

- Surficial sediment samples were collected concurrently with benthic invertebrate community (BIC) samples using a Petite Ponar grab sampler at three replicate stations within each sampling location during the fall sampling program.
- Each ponar grab sampled a surface area of 0.023 m^2. Three grab sub-samples were taken at each station within similar depths and homogenized into one composite sample to account for localized habitat heterogeneity and to represent the array of substrates within the station.
- The substrate properties at each benthic station (i.e., metal and nutrient concentrations) were characterized to further support interpretation of the BIC data between and among sample locations.
- Notable exceedances of the guidelines throughout the site included TOC, arsenic, cadmium, chromium, copper, iron, manganese, mercury and nickel. Indicative of naturally elevated levels of metals within the area.

ANALYSIS OF CHANGE

PREDICTED CHANGES TO FISH AND FISH HABITATS

- As per Section 8.8.2 of the TISG, the Impact Statement must describe the potential effect of the Project on Fish and Fish Habitat as defined in Subsection 2(1) the *Fisheries Act*.
- Fish and fish habitat is included as a federal Valued Component (fVC) for the Project because, fish and their habitats are key indicators of fishery sustainability, productivity and environmental health
- This fVC includes fish, the habitat that supports these fish, and the health of these fish populations.

Photo: Dixie Creek

REVIEW FOCUS FOR FISH AND FISH HABITATS

With respect to fish and fish habitat, given the context of the project as set out in the Tailored Impact Statement Guidelines, IAAC's review will focus specific attention on the following:

- Adverse changes to fish and fish habitat, specifically for Lake Whitefish, Walleye, Lake Trout and Lake Sturgeon.
- Changes to water flows and fish habitat in Dixie Creek and the Chukuni River watershed around the Project, and the development of feasible offsetting to inform more detailed federal permitting.
- Geographic extent of contaminants in the Chukuni River watershed and downstream watersheds, as a result of planned or unplanned effluent discharge, taking into account cyanide use and any contaminants generated by acid rock drainage or metal(loid) leaching, with consideration of how the mine closure plan and provincial permitting may address effects.
- Specifically, ensuring adequate site management of sulphates and other contaminants (e.g., mercury, copper, iron ions) that have the potential to contribute to methylmercury production and bioaccumulation downstream.
- Ensuring the site water management plan is adequately designed for future climate scenarios such that mitigation remains effective.

Photo: Pakwash Lake

FISH AND FISH HABITATS EFFECTS ASSESSMENT CRITERIA

Changes to Fish Habitat

- Change in area of waters frequented by fish (measured in m^2 and / or ha).
- Change in flow from baseline condition (measured in percent reduction), or water level change from baseline condition (measured in m).

Changes to Fish Communities

- Change in relative abundance of fish species.
- Change in fish community structure measured as (number of species and percent species composition).

Changes to Fish Health

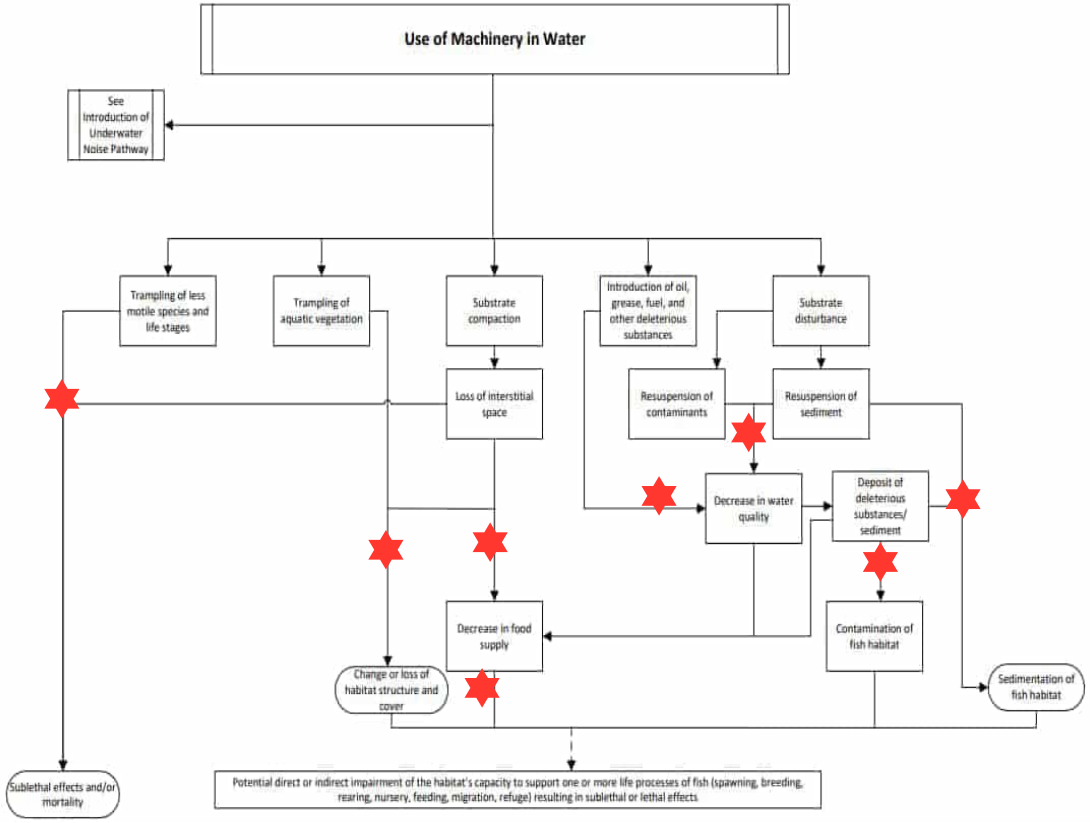
- Change in water quality, measured in mg/L, µg/L or ppm.
- Change in fish tissue contaminants, measured milligrams per kilogram wet weight (mg/kg wwt with exception of Selenium which is in mg/kg dwt).
- Change in fish growth (measured as length and weight at age and condition factor).

Photo: Chukuni River

FISH AND FISH HABITATS EFFECTS ASSESSMENT SIGNIFICANCE DETERMINATION

ATTRIBUTE	DESCRIPTION	CATEGORY
Magnitude	A qualitative or quantitative measure to describe the size or degree of the residual effects relative to baseline conditions	•Level I: Measurable residual effect on fish or fish habitat that would be offset with measures implemented in an approved offset plan as required under the *Fisheries Act*. •Level II: Level I and / or may affect the sustainability of local fish populations. •Level III: Level I/II and / or may affect the sustainability of regional fish populations.
Geographic Extent	The spatial extent over which the residual effect will take place	•Level I: Effect is restricted to the local study area (LSA) •Level II: Effect extends beyond the LSA but within the regional study area (RSA) •Level III: Effect extends beyond the RSA
Duration	The time period over which the residual effect will or is expected to occur	•Level I: Effect occurs over the short term: less than or equal to 3 years •Level II: Effect occurs over the medium term: more than three years but less than 31 years •Level III: Effect occurs over the long term: greater than 31 years.
Frequency	The rate of occurrence of the residual effect	•Level I: Effect occurs once, infrequently (or not at all) •Level II: Effect occurs intermittently or regularly •Level III: Effect occurs frequently or continuously
Reversibility	The extent to which the residual effect can be reversed	•Level I: Effect is fully reversible during the Project phases •Level II: Effect is partially reversible during the Project phases •Level III: Effect is not reversible during the Project phases.
Timing	A measure of whether the residual effect occurs during a sensitive period of the year	•Level I: Effects do not occur during a sensitive period or related effects are fully mitigated •Level II: Effects occur during a sensitive period and are partially mitigated •Level III: Effects occur during a sensitive period and are not mitigated

POTENTIAL EFFECTS



Project Component / Activities

Site preparation activities

Establishment and operation of water management and treatment facilities

Open pit mining

Underground mining

Management of rock and unconsolidated materials in stockpiles

Establishment of onsite fish habitat and compensation measures

Establishment of onsite aggregate operations

Construction of the starter embankments for the TMF

Construction and operation of buildings and infrastructure

Waste management

Commissioning of the process plant

Power supply

Employment and expenditures

DFO Pathways of Effects

Use of Machinery on Land / Alteration of Riparian Vegetation

Use of Machinery in Water

Placement of Materials in Water

Removal of Materials and Aquatic Vegetation from Water

Water Level / Flow Modification

Water Diversion

Dewatering

Detonation in or Near Water

Introduction of Underwater Noise

Water Quality Modification

Mitigation and Enhancement

Minimize footprint/overprinting

Implement ESC Plans

Avoid fish restricted activity period, work in the in-water timing windows

Design culverts to facilitate fish passage

Isolate in-waterworks

Complete maintenance

Use available standards and codes of practice for routine works

Implement measures of the FHOCP

Complete fish rescues

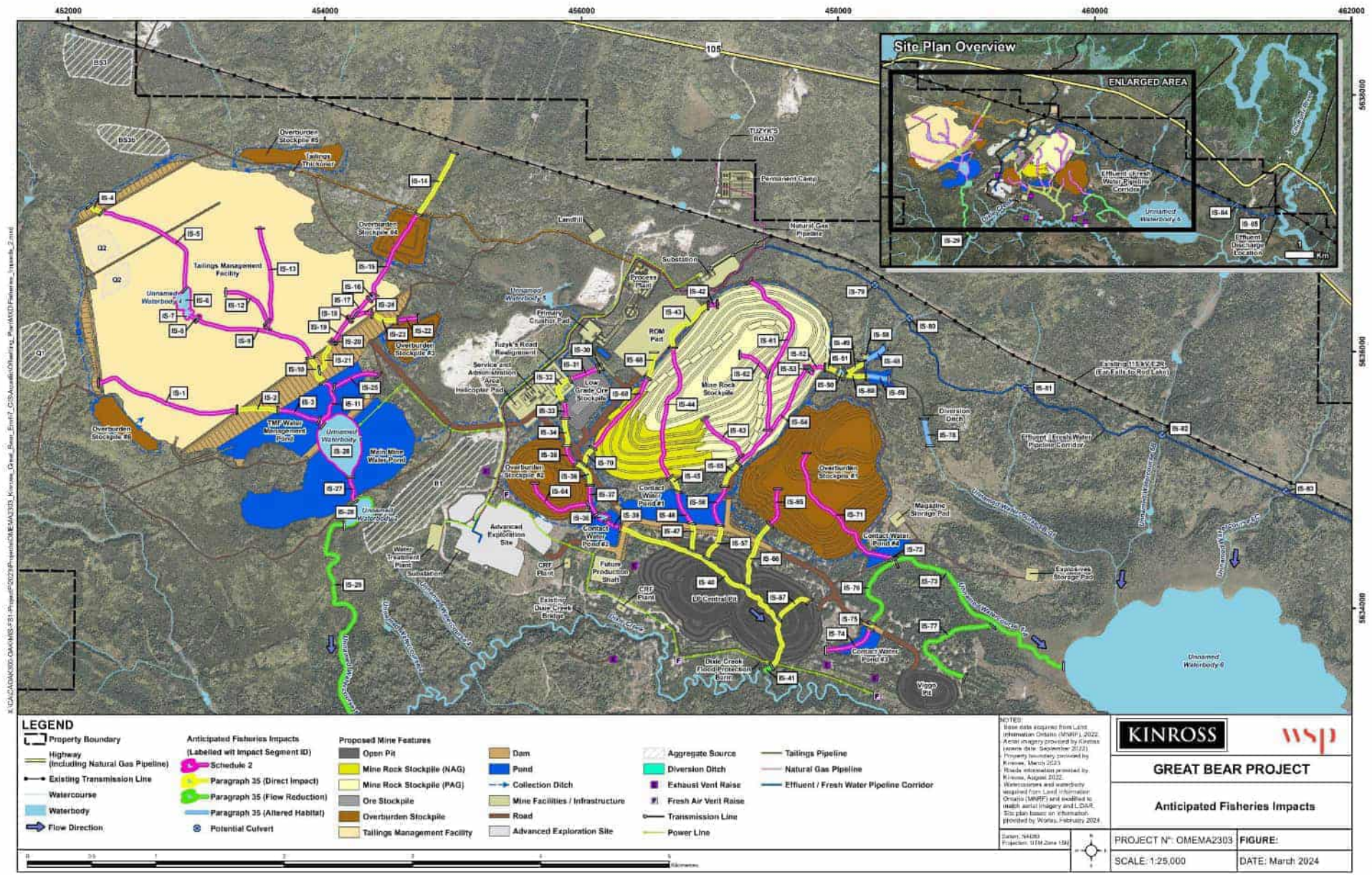
Use appropriately sized fish screens

Develop Blasting Plan

Develop a Spill and Emergency Response Plan

Water quality mitigations

Preliminary Paragraph 35 and Schedule 2 Impacts



ASSESSMENT OF RESIDUAL EFFECTS

PARAGRAPH 35: HADD OF FISH HABITAT AND MDMER SCHEDULE 2 IMPACTS

Changes to Fish Habitat

- Change in area of waters frequented by fish (measured in m^2 and / or ha).
- Change in flow from baseline condition (measured in percent reduction), or water level change from baseline condition (measured in m).

Direct Effects

- Overprinting of fish habitats.
- Habitat diversion.
- Water discharge changes to water quality (Schedule 2).

Indirect Effects

- Flow reduction.

Table 6-4: Summary of Combined Schedule 2 Waterbodies and Predicted HADD (Section 35)

Effect Type	Predicted Schedule 2 and HADD Surface Area (ha)
Schedule 2 Total	14.12
Section 35 Total	6.04
Combined Schedule 2 and Section 35 Total	**20.16**

Notes:
Anticipated impacts summarized in this table of the draft Plan are subject to change with additional regulatory discussions / consultation.
* Waterbodies not frequented by fish are not included in totals of residual effect (predicted HADD or Schedule 2)

Determination of Significance

- Temporary change to 20.16 ha of fish habitat will be counterbalanced with 25.5 ha of fish habitat offsetting and compensation measures.
- **With the implementation of mitigation measures residual effects to fish and fish habitat are not predicted and a determination of significance is not required.**

ASSESSMENT OF RESIDUAL EFFECTS

Changes to Fish Communities

- Change in relative abundance of fish species
- Change in fish community structure measured as (number of species and percent species composition)

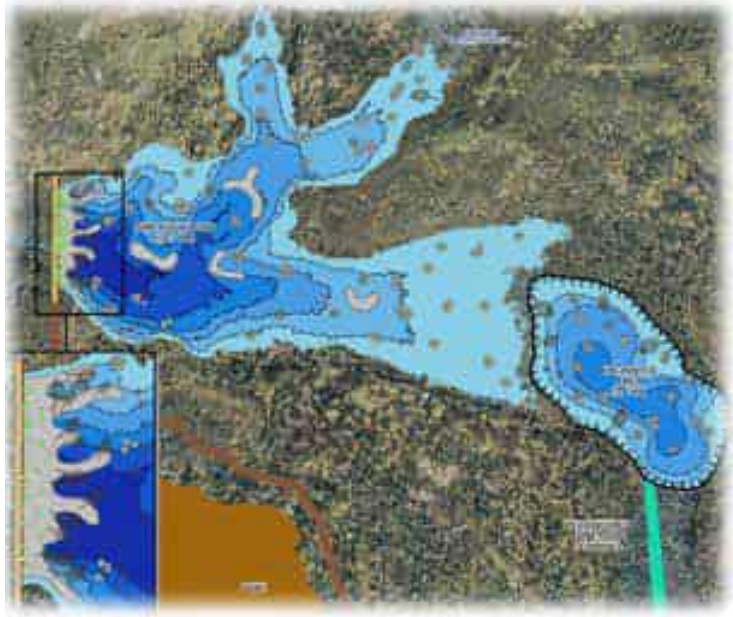
Changes to Fish Health

- Change in water quality, measured in mg/L, µg/L, or ppm.
- Change in fish tissue contaminants, measured milligrams per kilogram wet weight (mg/kg wwt with exception of Selenium which is in mg/kg dwt)
- Change in fish growth (measured as length and weight at age and condition factor)

Predicted Effects

- **Species assemblages** including species richness and abundance are expected to shift in favor of species that are more adaptable and resilient to the reduced flow conditions such as Central Mudminnow and Brook Stickleback.
- Flows in Dixie Creek are anticipated to return to near baseline conditions at closure, and **changes in fish communities are not predicted.**
- **Some positive shifts in species richness and fish abundance** may occur in the unnamed watercourses during final reclamation there are no residual effects to fish communities predicted.
- Changes to fish health are being supported by other sections including water quality and human and ecological health assessment, further work is required, although **not anticipated to deviate beyond the natural variation predicted** (i.e., MDMER critical effect size).

CANDIDATE OFFSETS AND COMPENSATION – ON SITE

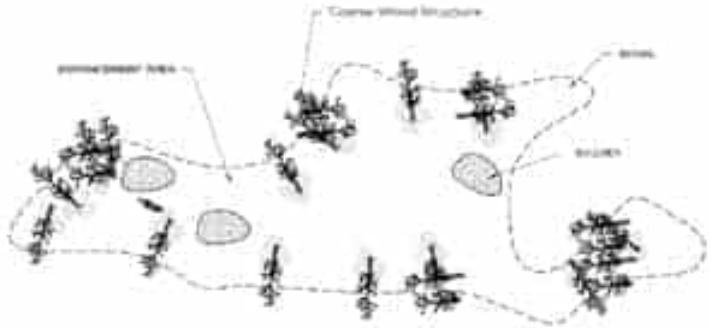


Replace the small lakes and ponds most effected by the project in the same general area of the Project.

The diversion Pond will pass clean water around the site and make a new pond.

More ponds can be excavated beside Dixie Creek.

Use Rocks and trees to provide natural cover for fish



CANDIDATE OFFSETS AND COMPENSATION OFF SITE

Complementary Measure - Fisheries Management Plan for Wabaskang Lake

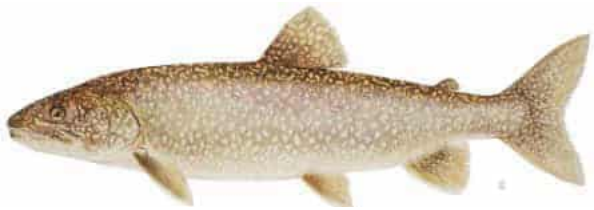
The Wabauskang First Nation has raised concerns regarding the fate of the Walleye population in the lake and the ability to maintain a productive population of naturally reproducing Walleye.

Suggested approach is to complete research to complement Broadscale Monitoring Programs such as hydroacoustic surveys, isotope analysis and telemetry to determine the existing populations abundance and diversity using less lethal techniques. The results from these monitoring programs would then feed into the development of a Fisheries Management Plan.

CANDIDATE OFFSETS AND COMPENSATION

Additional Candidate Offsets and Compensation Projects:

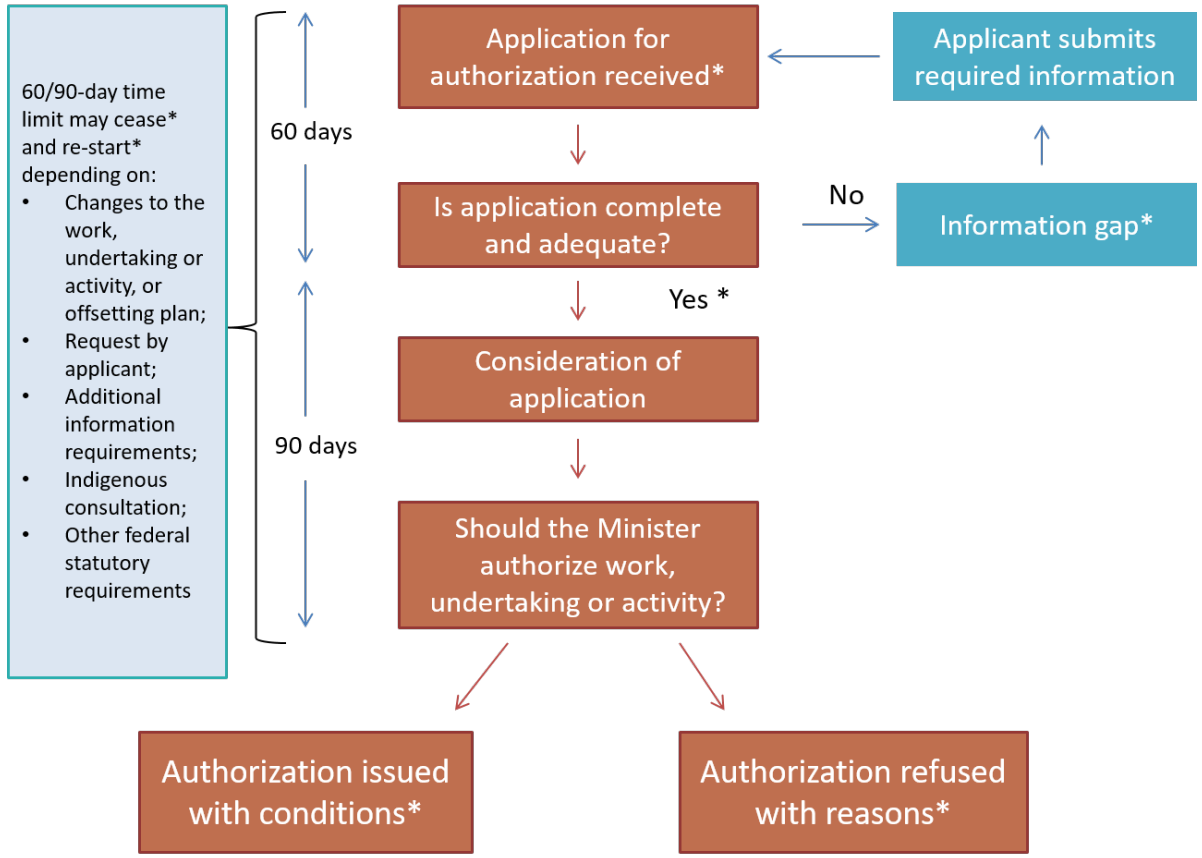
- Red Lake – Lake Trout Restoration Support
- Territorial Waters Restoration Hatchery
- Road Crossings
- Bruce Lake - Reconnect South and North Basins
- Invasive Species Management- Black Crappie near Wabauskang



PERMITTING REQUIREMENTS AND SCHEDULE

Fisheries Act Authorization Requirements for Paragraph 35 Works

- Contact information
- Description of proposed work, undertaking and activity
- Phases and schedule
- Location
- Consultation and engagement
- Description of fish and fish habitat
- Description of effects on fish and fish habitat
- Application of measures and standards
- Application of habitat credits
- Offsetting and compensation plan
- Financial guarantee

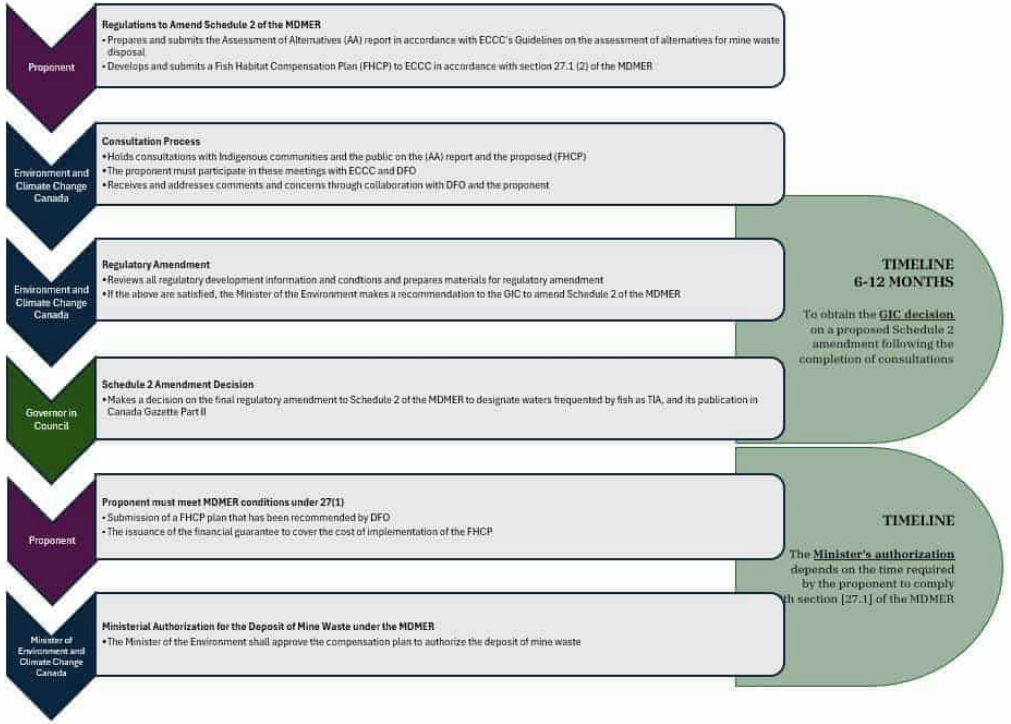


*Regulations require the Minister to notify the applicant

PERMITTING REQUIREMENTS AND SCHEDULE

Fisheries Act Authorization Requirements for Schedule 2 Mine Waste Deposits

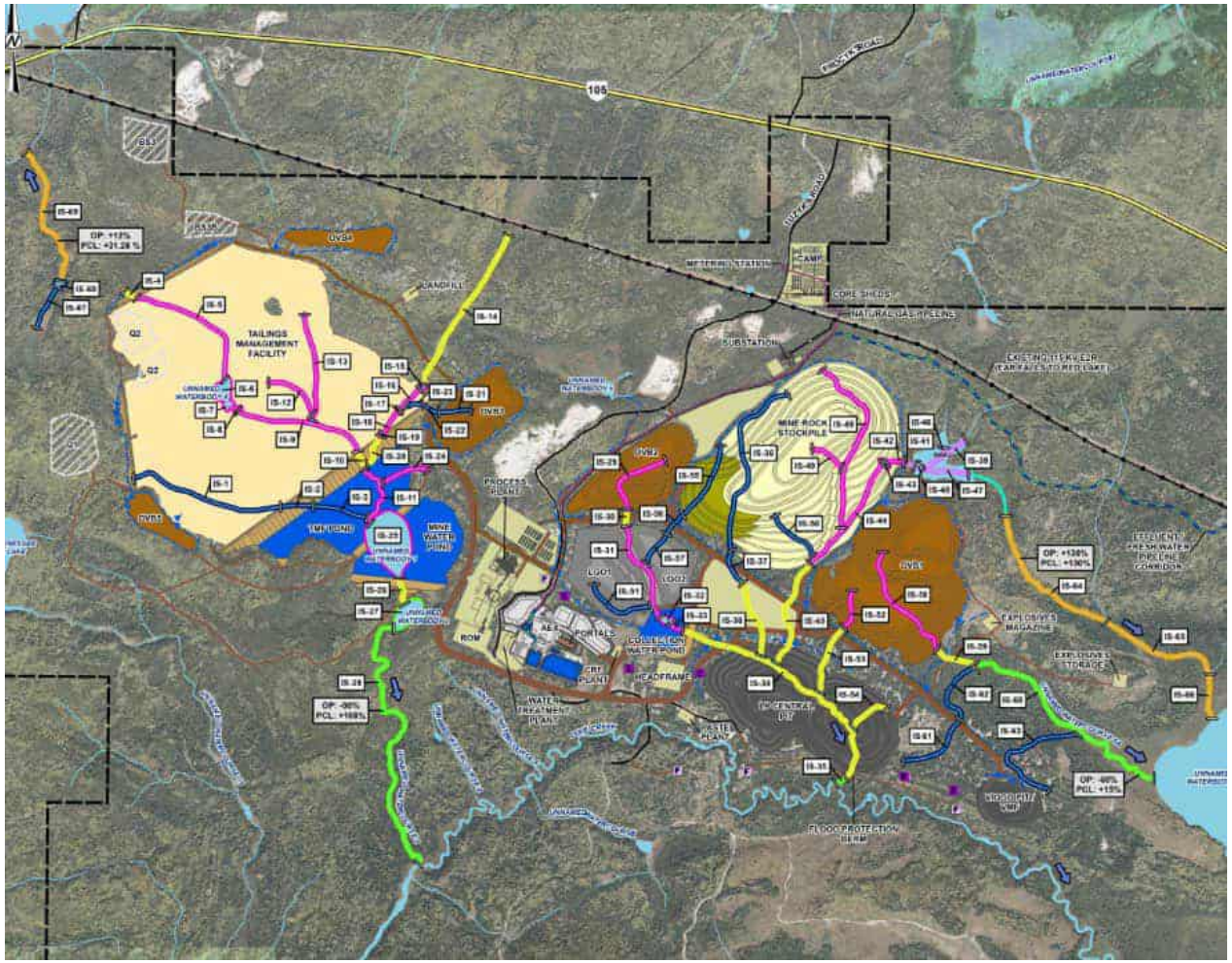
- For any project where the proposed deposit of mine waste into water frequented by fish or any place where deleterious substances from the deposit of mine waste may enter such water, will require an amendment to Schedule 2 of the MDMER and approval of a fish habitat compensation plan (FHOCP).
- Conditions can include:
  - Environmental Assessment completed and approved
  - Mine Waste Alternatives Assessment Report demonstrating best option approach (draft will be appended to the Impact Statement)
  - FHOCP to offset the loss of fish habitat from the use of the waterbody for mine waste disposal
  - Consultation and engagement.
- Approval from Minister of the Environment based on advice from DFO.



CHANGE PATHWAY OUTCOME AND MANAGEMENT

Zones of Change

- Determined by the physical overprinting of habitat by project facilities, changes in flow reductions and integrated water management system.
- Not predicted to extend into Dixie Creek due to large drainage area and resilience to the small Project footprint.
- No changes to fish and fish habitat are predicted within the Chukuni River based on its large drainage area and the ability to treat water to appropriate site-specific criteria.



CHANGE PATHWAY OUTCOME AND MANAGEMENT

Change Management

- Managed through regulatory mechanisms, such as:
  - *Fisheries Act* Authorization
  - Schedule 2 listing under the MDMER
  - *Lakes and Rivers Improvement Act* Approval
  - Permit to Take Water.
- Requirements and conditions of federal and provincial approvals, including for follow up programs and environmental monitoring.

Photo: Chukuni River

QUESTIONS AND NEXT STEPS

THANK YOU

wsp.com

Kinross Great Bear / IAAC Touchpoint Meeting

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [10]	Hybrid [0]
Location:	Virtual		
Time:	1000 AM ET – 1030 AM ET		
Date:	August 1, 2025		
Executive Summary:	Impact Assessment Agency of Canada (IAAC) and Great Bear bi-weekly touchpoint meeting, emphasizing items and considerations in shaping the Impact Assessment. Kinross Great Bear provided updates on ongoing efforts to engage with Wabauskang and Lac Seul First Nations regarding the methylmercury study plan, and noted continued outreach to Asubpeeschoseewagong Netum Anishinabek regarding data inputs and replication of the study. IAAC confirmed that one member of the External Technical Review (ETR) panel has been secured, with contingency plans in place to ensure sufficient expertise. IAAC also noted that Environment and Climate Change Canada will be submitting technical review comments shortly. Kinross Great Bear confirmed that the first phase of the Impact Assessment (IA) submission—expected in September—will include the project description, alternatives, and preliminary sections, with technical support documents (TSDs) and modelling planned for submission in December. IAAC acknowledged and approved this phased approach. Kinross Great Bear indicated that revisions to the Detailed Project Description (DPD) will also be reflected in the submission, incorporating changes based on engagement feedback. The inclusion of benefits in the initial phase remains under consideration, though IAAC indicated that doing so would support continued dialogue. Key Words: Mercury, Project Layout, Economics		
Key Actions:	a. Great Bear i. TBD b. IAAC i. TBD		

1. Attendance

Kinross Great Bear

- Mac Potter
- Ashley Moncrief
- Aaron MacDonell

WSP

- Shelia Daniels

SLR Consulting

- Fiona Christiansen

Impact Assessment Agency of Canada

- Valerie Williams
- Ian Martin
- Keira Smith
- Elizabeth Chan
- Daisy Hsu

2. Agenda and Attachments

None provided.

3. Minutes

a. Updates

i. Great Bear noted that efforts remain ongoing to schedule meeting with WFN and LSFN to review the methylmercury study plan. Great bear notes continued reach out to ANA on the report itself, and the request to ANA on data considerations to affirm and seek to replicate study.

ii. IAAC provided update on ETR, noting that one induviudal has confirmed. Contingency planning is in place to ensure that coverage is there.

iii. Great Bear noted timing on receipt of comments on the technical information and review.

1. IAAC confirmed that Environmental and Climate Change Canada will be providing comments. IAAC expects these comments to be provided shortly.

b. IA Submission

i. IAAC inquiries on submission of IA components as part of Phase 1.

1. Kinross Great Bear confirmed that the initial phase includes project description, alternatives, and preliminary sections as part of Phase 1 in September, with target for TSD and modelling aspects for December submission. Great Bear stressed the importance of receiving comments as soon as possible to finalize approach.

a. IAAC confirms this approach is suitable.

2. IAAC inquiries on inclusive of socio-economic components.

a. Great Bear noted that there is a dedicated section tied to economic considerations, GDP, employment etc. It is further noted that considerations because of the Project are noted including sustainability aspects. These are framed around effects to Indigenous peoples.

b. Great Bear notes that changes from the DPD will also be provided as part of submission. Great Bear notes that changes are a result of dialogue, and positive change in Project.

i. IAAC inquired on inclusion of benefits in first phase?

1. Great Bear noted that this is still undetermined, but it is noted that drafting has occurred, and we want to ensure that material considerations are captured.

2. IAAC notes potential inclusion has been noted as something that supports dialogue.

Meeting closed at 1010 AM ET.

4. Action Items

a. Great Bear
   i. None at this time.

b. IAAC
   i. None at this time.

Dated: August 1, 2025

Great Bear Resources / IAAC Meeting to Discuss Kinross' Strategy for Overall Water Management and Fish Habitat and Compensation (Second KIB Session)

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [X]	Hybrid [0]
Location:	Virtual		
Time:	1:00 PM ET – 2:34 PM ET		
Date:	August 14, 2025		
Executive Summary:	The meeting was convened to discuss the current strategy for overall water management and fish habitat and compensation plans. The presentation highlighted the updates made to the water management plan as well as current baseline studies, modelling results, and proposed compensation and offset strategies regarding fish and fish habitat. IAAC, DFO and ECCC posed a series of clarifying questions regarding the presentation as well as advice to ensure continued progression for required approvals / amendments. The meeting concluded with only one action item for Great Bear Resources / WSP, to issue updated slide materials to IAAC that includes the most up-to-date site plan based on current modelling.		
Key Actions:	a. Great Bear Resources / WSP i. Great Bear Resources / WSP to issue updated slide materials to IAAC. b. IAAC i. None at this time.		

1. Attendance

Great Bear Resources

- Connor Devereaux
- Ashley Moncrief

WSP

- Sheila Daniel
- Jill LaPorte
- Felicia Liu

Impact Assessment Agency of Canada (IAAC/AEIC)

- Dietrich, MacRae-Maahs
- Andrew Mallum
- Carla De Aquino
- Carter McCrae

- Cheryl Benjamin
- Elizabeth Chan
- Ian Martin
- Karen Lalonde
- Kiera Smith
- Leslie Kieley

Environment and Climate Change Canada (ECCC)

- Angelique Petropoulos
- Carolyn Hann
- Chris Wilson
- David Laverdière
- Marta Lopez Egea
- Shawn Tse
- Sheryl Lusk

Fisheries and Oceans Canada (DFO/MPO)

- Clayton James
- Faith Tallas

Health Canada (HC/SC)

- Dae Young Lee

Indigenous Services (ISC-SAC)

- Amole Khadikar
- Doris Odjick
- Imene Khaldi
- Norah Kielland

Natural Resources Canada (NRCan/RNCAN

- Kathy McPherson, NRCan
- Shelley Ball, NRCan-RNCAN

Ministry of the Environment, Conservation and Parks (MECP)

- Brooke Saunders
- Carmen Ghetea
- Carroll Leith
- Eugene Macchione
- Jacinth Gilliam-Price
- May Lyn Trudelle
- Michelle Palmer
- Nick Colella
- Satyendra Bhavsar
- Zeljko Romic

Ministry of Energy and Mines (MEM)

- Andrea Hanson
- Raymond McCarthy

Ministry of Natural Resources (MNR)

- Erik Lockhart

2. Agenda and Attachments
- Presentation issued to IAAC, by Great Bear Resources.
- Presented by Connor Devereaux (water) and Jill LaPorte (fish)

3. Minutes
    a. Introduction
        i. IAAC opened meeting noting overview, and all those attending are in place.
    b. Presentation
        i. Great Bear Resources (Connor Devereaux) provided a high-level overview of the proposed water management strategies for the Project, emphasizing that what is currently proposed is similar to what is observed in other approved mining operations.
            1. Great Bear Resources presented a map and a flow diagram to show infrastructure and water treatment flows around site—pointed out two distinct streams:
                a. One stream for typical water treatment infrastructure.
                b. One stream for the recent development around membrane filtration with emphasis on the current modelling work around this contingency measure.
            2. Main update regarding sulphate management: There has been significant remodeling for impact statement work due to additional treatment added for the tailings management facility and select contact waters on-site.
            3. Great Bear Resources provided an overview to set up context and to assist ongoing discussion for the fish presentation to follow.
            4. No questions were asked at this time.
        ii. WSP (Jill LaPorte) presented a summary of baseline methodology, sampling efforts, and an overview of results for fish habitat and compensation.
            1. WSP highlighted sample collection efforts across seasons, targeted parameters of interest, and second source data used for baseline analyses.
            2. WSP presented habitat type results determined for waterbodies and watercourses in the Project area as well as discussed Project footprint evaluation.
                a. Overall results (habitat type, overall footprint size, weighted footprint area) showed that quality habitats to support fish communities were present.
            3. Fish community studies were completed using traditional field techniques, eDNA results to provide additional support, and MNR broadscale monitoring to evaluate fish population in larger lakes.

a. Question from DFO/MPO (Clayton James): Were there any species that show up in eDNA results that did not show up in traditional results?
    i. WSP (Jill LaPorte) answered that eDNA results have not provided any new findings from what had already been identified in background data or from traditional techniques.
    ii. Great Bear Resources (Ashley Moncrief) added that the only new finding eDNA has provided were additional abundance information in the Chukuni River, but nothing distinctly novel or surprising.

4. WSP continued to discuss methodology and results for fish tissue studies, surface waters studies, lower trophic and primary productivity assessments (zooplankton, periphyton, and benthic invertebrates), and sediment quality.
    a. WSP noted that the 2024 periphyton results are pending and will be distributed shortly.

c. Great Bear Resources (Connor Devereaux) provided a summary of meetings and workshops with Indigenous communities related to the impact statement.
    i. Numerous engagements and dedicated fish compensation discussions have occurred with indigenous communities to provide an overview of current plans and to provide opportunities to gather feedback early on.
    ii. Next steps are to continue to share information with indigenous communities early as well as to have a follow-up meeting in Q4 to present an updated fish compensation plan and to review how feedback was incorporated.
    iii. Great Bear Resources highlighted the great amount of effort that has been applied to ensure communication with Indigenous communities has occurred early on. Indigenous community members have been active participants in discussions, and the information provided has generally been well-received.

d. WSP (Jill LaPorte) discussed the analyses of change to the Project and covered effects assessment as per Section 8.8.2 of the Tailored Impact Statement Guidelines.
    i. WSP identified points that will be the focus of IAAC's review for fish and fish habitat and discussed fish and fish habitat effects assessment criteria for changes to fish habitat, fish community, and fish health. A discussion was also had on how the level of significance was determined.
    ii. WSP presented a map that identified preliminary Paragraph 35 and Schedule 2 impacts and how DFO pathways of effects were used to evaluate Project components and how they can be effectively mitigated and / or offset.
        1. Question from DFO/MPO (Clayton James): What is the threshold? Are we considering increases in flows as impacts?
            a. WSP (Jill LaPorte) answered that a 10% criteria has been implemented based on DFO guidance and that yes, increases in flow are considered impacts with assessment related to fish ability to travel.
    iii. WSP discussed the assessment of residual effect. It is noted that there is high confidence that with the implementation of mitigation measures, residual effects to fish and fish habitat are not predicted and a determination of significance is not required, based on previous experience and federal guidance.

iv. WSP presented the candidate offset and offset measures on-site as well as additional candidate offset and compensation plans if additional contingencies are required.
    1. Question from DFO/MPO (Clayton James): Does the 20.16 ha factor in WSA or not?
        a. WSP (Jill LaPorte) answered no it is based on area only.
    2. Question from DFO/MPO (Clayton James): Are the additional candidate offset and compensation plans driven by indigenous communities / is it some of their ideas?
        a. WSP (Jill LaPorte) answered that they had categorized and scaled different offsetting options and provided a ranking to determine which is best suited for the Project. Indigenous communities have supported certain plans with this information and thus the additional plans are a mixture of existing Great Bear Resources plans and suggestions from indigenous communities.
    3. Question from DFO/MPO (Clayton James): Was the Dixie Creek Pond Complex supported by communities?
        a. WSP (Jill LaPorte) answered yes and that it was well-received.
        b. Great Bear Resources added that the measures presented by Great Bear Resources were heavily supported by indigenous communities as they hope to improve forage and fish habitat. Additionally, Lac Seul First Nation and Wabauskang First Nation showed support as they believe it would provide learning opportunities for them as well.

v. WSP concluded this portion of the presentation with an overview of permitting requirements and schedule.

e. Additional Questions
    i. Clarification from ECCC (Angelique Petropoulos): In reference to the 6-to-12-month timeline for the Schedule 2 Amendment, it only refers to actual regulatory development to reach a decision; it does not include time for consultation.
    ii. Question from Great Bear Resources (Connor Deveraux): Are discussions between IAAC and DFO occurring now to ensure alignment for who Great Bear Resources will need to engage with?
        1. IAAC replied that they will reach out to their respective counterparts and efforts have been made to be aligned. However, they cannot confirm as there have been a lot of changeovers.
        2. Follow-up Question from WSP (Sheila Daniel): What is the path forward? Is there potential for earlier submission prior to the Impact Statement to allow for alignment earlier?
            a. IAAC replied that conversations had started in June / July. High-level conversations have occurred with the IAAC permitting representative and their DFO contact but cannot speak on it directly.
            b. DFO/MPO (Clayton James) adds that Schedule 2 amendment is what is holding progress back.
    iii. Advice provided by DFO/MPO (Clayton James): consideration to scope in McDowell First Nation. Agency has attempted to scope them in but have not received a response yet.
        1. Great Bear Resources notes that they will align with the team on this topic as it had been previously noted that they did not need to be scoped in.

iv. Question from WSP (Sheila Daniel): Could Section 35 be authorized separately from Schedule 2?
    1. DFO/MPO (Clayton James) states that they cannot issue before a Schedule 2 amendment has occurred.
v. Question from ECCC (Chris Wilson?): Curious about expectations of when Schedule 2 amendment will be required by.
    1. WSP (Sheila Daniel) states that approval would ideally be wanted as soon as possible to allow for progress and development. The current schedule presented to IAAC has construction starting in Q2 2027 and thus if no fisheries authorization can be provided until Schedule 2 is amended, it will put the Project on a critical path as authorization would be needed as soon as possible for the construction phase. Great Bear Resources is open to providing additional support in order to ease the progression of Schedule 2 amendment.
    2. ECCC (Chris Wilson) suggests the use of templates that they have available and particularly the guidelines for alternative assessments are important to use. It is the measure by which they review alternative assessments and the use of the templates for multiple account analysis (provided in an Excel file) will assist in checking values that feed into alternative assessments more effectively. ECCC notes that they can share the file.
    3. WSP (Sheila Daniel) states that they can check into it but are most likely already using the file as we have submitted an number of these assessments in the past.
    4. ECCC (Chris Wilson) notes that it would also be helpful to have clear, detailed maps and a list of waterbodies. They continue to note that it may be premature, but baseline fisheries studies would be relied upon to make those determinations so if they could be included in the distribution it would be helpful for them to have documents to pass on when they request guidance from DFO.
    5. DFO/MPO (Clayton James) adds that traditional and eDNA is great and will make the process much quicker as well as data to support waterbodies that are noted to not have fish.
    6. ECCC (Chris Wilson) adds that Section 27.1 of the MDMER lists requirements of what needs to be in compensation plan at a high level and that each of the requirements needs to be met for the plan to be considered complete.
    7. DFO/MPO (Clayton James) adds that indigenous community buy-in is also good as it makes consultation on their end easier if the plans are already supported and not a surprise to the indigenous communities.

f. Closing remarks from Great Bear Resources and IAAC.

Meeting closed at 3:34 PM ET.

4. Action Items
    a. Great Bear Resources / WSP
        i. Great Bear / WSP to issue updated slide materials to IAAC.
    b. IAAC
        i. None at this time.

KINROSS Great Bear

Dated: August 14, 2025

GREAT BEAR PROJECT

IMPACT STATEMENT SECTION 8: FISH AND FISH HABITAT

August 14, 2025

INTRODUCTION

Great Bear Project (Project) is a proposed northwestern Ontario mining project. An Impact Statement is currently in preparation.

Fish and fish habitat is included as a federal Valued Component (fVC) for the Project because of the identified importance of fish as a resource to Indigenous and non-Indigenous land users; and the established federal regulatory jurisdiction over fish and fish habitat.

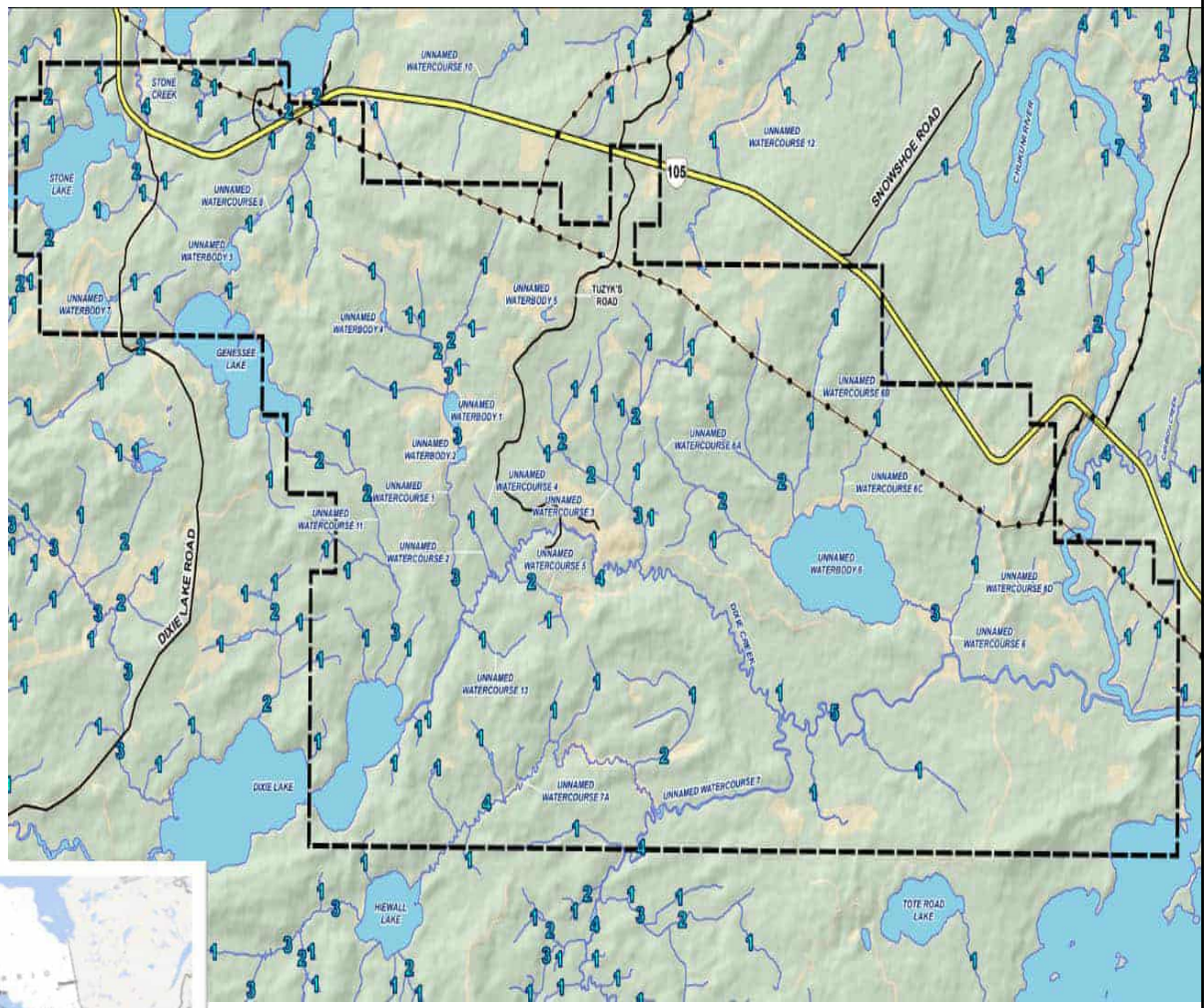
Fish and their habitats are **key endpoints to assess and monitor the overall health of the aquatic ecosystem** as they reflect potential interactions with other supporting pathway components.

This fVC includes fish, the habitat that supports these fish, and the health of these fish populations.

Photo: Pakwash Lake

PROJECT LOCATION AND POTENTIAL EFFECTS

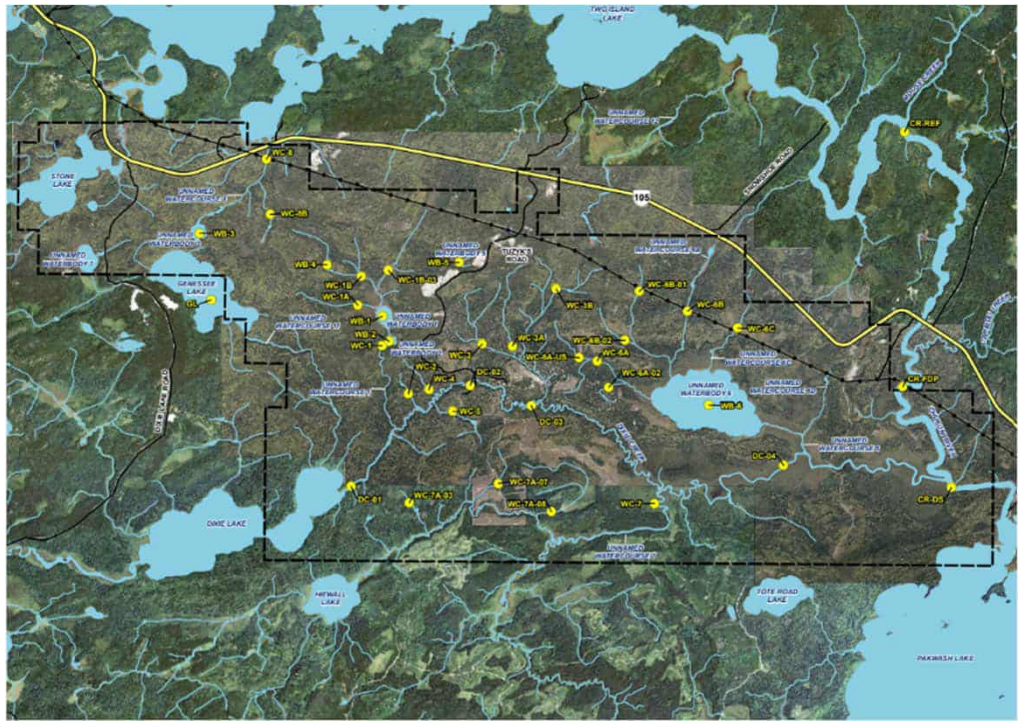
- The Project is located about 25 km from Red Lake, ON
- Several waterbodies and watercourses will be potentially affected by the Project where Harmful Alteration, Disruption or Destruction (HADD) to fish and fish habitat would occur or where the deposit of mine waste may require that natural waterbodies be listed on Schedule 2 of the MDMER.



BASELINE SUMMARY

BACKGROUND AND ENVIRONMENTAL SETTING

- Project-specific baseline monitoring field programs were conducted over multiple years and seasons:
  - Spring, summer and fall 2022, 2023 and 2024
  - Winter 2025.
- Project specific aquatic baseline sampling included: fish community assessments including eDNA sampling, fish habitat assessments, fish tissue collections, lake profile measurements, bathymetry measurements, sampling for zooplankton, periphyton, and benthic invertebrate community), water and sediment quality sampling.
- Secondary source data: MNR BSM data 2008 to 2012, 2013 to 2017 and 2018 to 2024.



PROJECT AREA WATERBODIES

- Project habitats range from diffuse flow paths to well defined permanent creeks to large regional rivers. These drainages connect pond and lake type features that also range in size and depth.
- Habitats were characterized by homogenous habitat types using stream order, fish presence and availability of habitats and their specific characteristics (i.e., substrates, riparian and in-water vegetation, channel morphology etc.).
- 9 watercourse habitat types and 3 waterbody habitat types were applied.

Photo: Waterbody 3

PROJECT AREA WATERBODIES - LAKES AND PONDS

TYPE A

Permanent, shallow inland lake / pond habitat

Shoreline vegetation varies between extensive floating mats of herbaceous species

Substrates mostly of fine-grained sediment and localized sections with boulder, cobble and/or sand

TYPE B

Permanent, small, deep inland lake habitat

Support a variety of forage fish and large body / sport fish

Shoreline vegetation varies between extensive floating mats of herbaceous species and localized sections with substrates of boulder, cobble and/or sand

TYPE C

Permanent, large lake habitat

Shoreline mostly bedrock / boulder substrate, with some and shallow nearshore soft sediments commonly at tributary inflows

PROJECT AREA WATERCOURSES

TYPE D

Ephemeral, low lying area with diffuse pockets of standing water

Sections of complete loss of channel, can transition into muskeg drainage, overland drainage flow path or underground flow

TYPE E

Intermittent, little to no floodplain with dense shrub riparian vegetation

Steep banks

Substrates consisting of primarily bedrock, boulder and cobble with coarse wood debris

TYPE F

Permanent, moderate beaver activity creating alternating series of pools / impoundments

Side overflow channels created during high flow and stream stage events

Abundant coarse wood debris

TYPE G

Permanent, broad floodplain with extensive floating mats of herbaceous species typical of muskeg and beaver ponds / impoundments

Primarily flat morphology with occasional pools in the thalweg of meander bends and back bays of the channel

TYPE H

Permanent, moderate river with broad floodplain

Primarily flat morphology with occasional pools

Commonly occurring as main connecting channels between inland waterbodies

TYPE I

Permanent, large river with moderate flow with occasional fast flowing riffle / rapids habitat and steep banks

Soft fine-grained substrate with some localized boulder and cobble, as well as exposed bedrock

FISH HABITAT ASSESSMENT METHODS

- Habitat assessments were conducted at representative locations during the 2022 to 2024 field studies. Habitat types were classified based on watercourse or waterbody type, permanence, and stream order.
- Several stream characteristics were measured at riverine habitats including bankfull and wetted measurements, substrate composition, dominant riparian types, and included in-field surface water quality measurements (temperature, pH, specific conductivity and DO).
- Bathymetry surveys were completed in 2022 and 2024 at WB-2, WB-6, including for the Chukuni River. Surveys included perimeter transects and cross-waterbody transects at approximately 150 to 200 m spacing following perpendicular pathways using a Lowrance Live Sonar.
- Desktop habitat suitability modeling was completed using the Habitat Evaluation Procedure to determine quality of the habitats present

Photo: Pakwash Lake

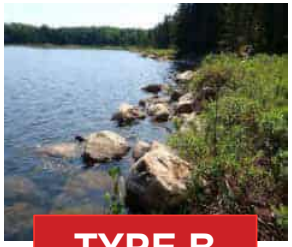
FISH HABITAT ASSESSMENT RESULTS

- Identified 9 different habitat types ranging from permanent, large lakes and riverine habitats to ephemeral streams.

TYPE A

WB-1
WB-4
WB-5
WB-6

233 ha
WSA 167 ha



TYPE B

WB-2
WB-3
WB-5
WB-6

11.8 ha
WSA 7.7 ha

TYPE C

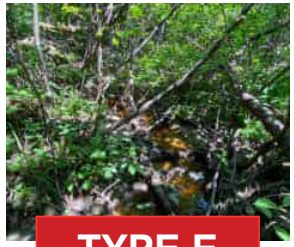
Gullrock Lake
Genessee Lake
Pakwash Lake

15,243 ha
WSA 12,258 ha

TYPE D

WC-1A
WC-1B
WC-1B-03
WC-6A-01
WC-6A-02

3 ha
WSA ~2 ha



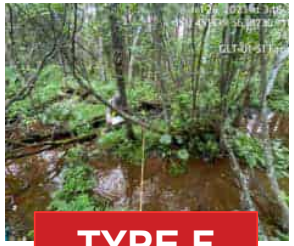
TYPE E

WC-2
WC-3A
WC-3B
WC-6A
WC-6B
WC-6B-01
WC-6C
WC-7A-03
WC-7A-07
WC-7A-08

14.7 ha
WSA 9.8 ha

FISH HABITAT ASSESSMENT RESULTS

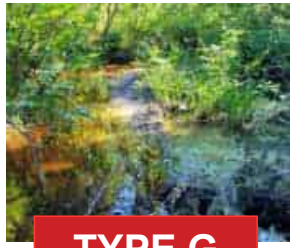
- Identified 9 different habitat types ranging from permanent, large lakes and riverine habitats to ephemeral streams.



TYPE F

WC-1
WC-4
WC-5
WC-6B-02
WC-6C
WC-8
WC-8B

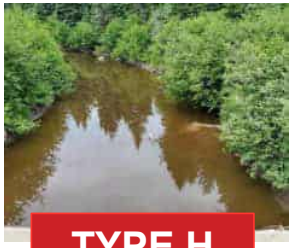
4.1 ha
WSA 2.9 ha



TYPE G

WC-1A
WC-7

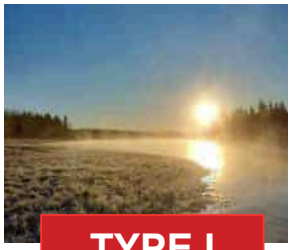
8.4 ha
WSA 7.1 ha



TYPE H

DC-01
DC-02
DC-03
DC-04
WC-3

52.5 ha
WSA 48 ha



TYPE I

CR-REF
CR-FDP
CR-DS

280 ha
WSA 225 ha

FISH COMMUNITY STUDIES

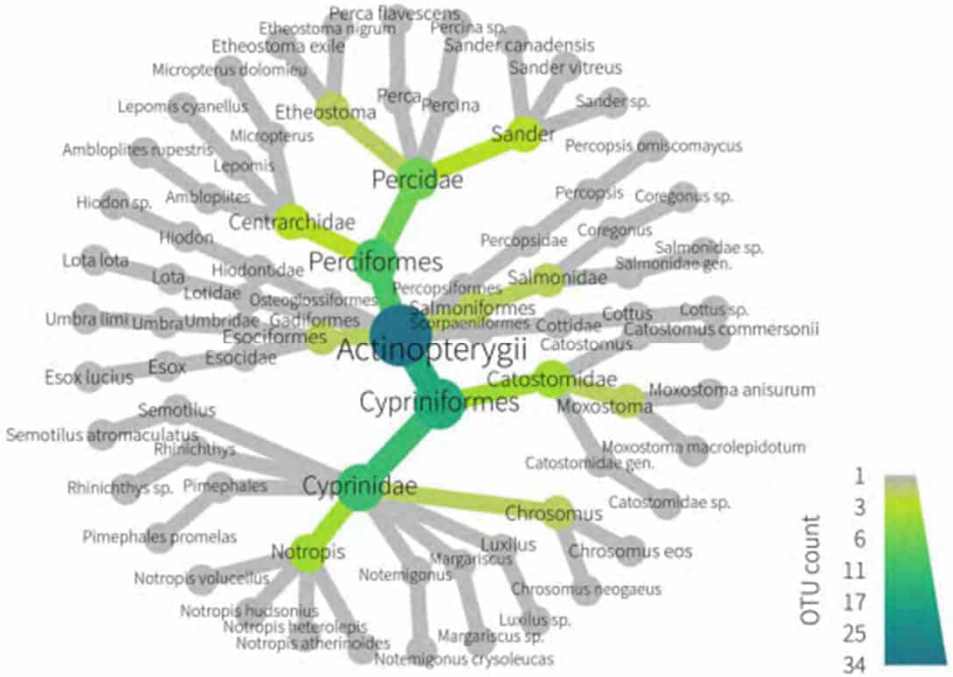
- Fish community surveys were completed in spring, summer, and fall in 2022, 2023 and 2024. Gear types were used included: Angling, backpack / boat electrofishing, minnow traps, dip netting, gillnets and seine nets.
- Environmental DNA sampling, collected using a non-intrusive water sample.
- The MNR conducted three cycles of Broad-Scale Monitoring (BsM; Sandstrom et al. 2013) surveys in Gullrock and Pakwash lakes.
- The BsM surveys, which employ whole lake depth stratified sampling with small and large mesh gillnets, were completed in 2009, 2014 and 2019 (MNR 2024).

FISH COMMUNITY RESULTS

- Fish were captured or determined through eDNA sampling to be present in all waterbodies and watercourse of the Project Area with few exceptions.
- Brook Stickleback and Common Mudminnow were the most prevalent species of the Project area occurring in >20 areas sampled.
- Other common species included Finescale Dace, Northern Redbelly Dace, Northern Pike, White Sucker and Yellow Perch.

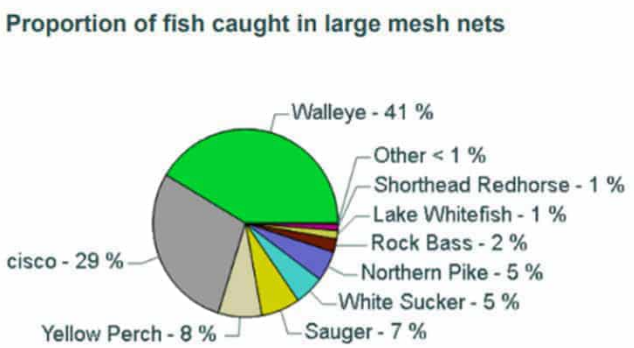
EDNA RESULTS

- Results demonstrated fish presence in some areas where traditional sampling techniques did not capture fish; good supplemental technique to traditional studies.
- Dominant species determined from the eDNA sampling include Walleye, Darters, Cyprinids-Shiners, Dace, minnows, White Sucker, Northern Pike etc.
- No sampling locations fish community data relied solely on eDNA results.
- Detected invasive species but no Species at Risk.

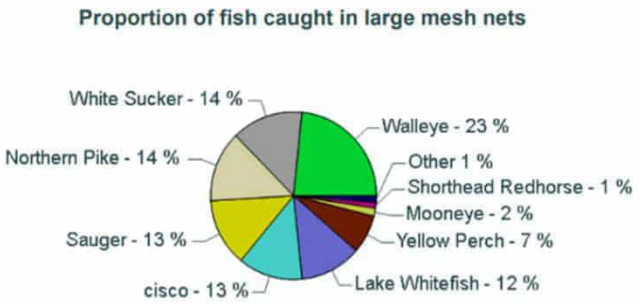


MNR BROADSCALE MONITORING RESULTS

- BSM completed at Gullrock Lake August 2019, Pakwash Lake June 2009, 2014 and 2019.
- Gullrock Lake was dominated by Walleye and Cisco.
- Additional fish species captured in Gullrock Lake in small mesh nets were Emerald Shiner, Rainbow Smelt, Spottail Shiner and Trout-perch.
- Invasive species were captured- spiny water flea in Gullrock Lake.
- Pakwash Lake was dominated by Walleye with a more balanced reminder of the community Cisco, Lake Whitefish, Northern Pike, Sauger and White Sucker.
- No invasive species were captured in Pakwash Lake.



Gullrock Lake 2019



Pakwash Lake 2019

Project Fish Communities

Forage and Baitfish

- Blackchin Shiner
- Blacknose Shiner
- Bluntnose Minnow
- Brook Stickleback
- Central Mudminnow
- Common Shiner
- Emerald Shiner
- Fathead Minnow
- Finescale Dace
- Golden Shiner
- Iowa Darter
- Johnny Darter
- Lake Chub
- Mimic Shiner
- Northern Pearl Dace
- Northern Redbelly Dace
- Rainbow Smelt
- Silver Redhorse
- Shorthead Redhorse
- Slimy Sculpin
- Spottail Shiner
- Trout Perch
- White Sucker

Intermediate Sportfish

- Burbot
- Cisco
- Rock Bass
- Yellow Perch
- Mooneye

Top Trophic Level Sportfish

- Walleye
- Lake Whitefish
- Northern Pike
- Small Mouth Bass
- Muskellunge
- Lake Sturgeon
- Lake Trout

INLAND PONDS AND CREEKS → INTERMEDIATE CREEKS AND LAKES (Dixie Creek/ Waterbody 6) → LARGER RIVERS AND LAKES (Chukuni River / Pakwash Lake

FISH TISSUE COLLECTIONS AND RESULTS

- Fish tissue samples for contaminant analysis included skinless, boneless left dorsal epaxial muscle tissue for large-bodied species.
- Large-bodied sentinel fish species retained for tissue analysis during the field studie included: Cisco, Lake Whitefish, Northern Pike, Silver Redhorse, Walleye, White Sucker and Yellow Perch.
- Composite samples of Brook Stickleback, Central Mudminnow, Finescale Dace, Iowa Darter, Lake Chub, Northern Redbelly Dace, Spottail Shiner, and Yellow Perch were submitted for analysis to represent the small-bodied fish species community.
- Fish tissue samples were submitted to ALS Environmental (Thunder Bay, Ontario) for total metals including mercury, methylmercury, and selenium, as well as percent moisture.
- Top level predators showed higher Mercury concentrations in tissues. Although all tissues were below the guideline values.
- All metals were below the tissue guidelines with the exception of methylmercury when compared with the CCME guideline of 0.033 mg/kg for the protection of wildlife consumers of aquatic biota.

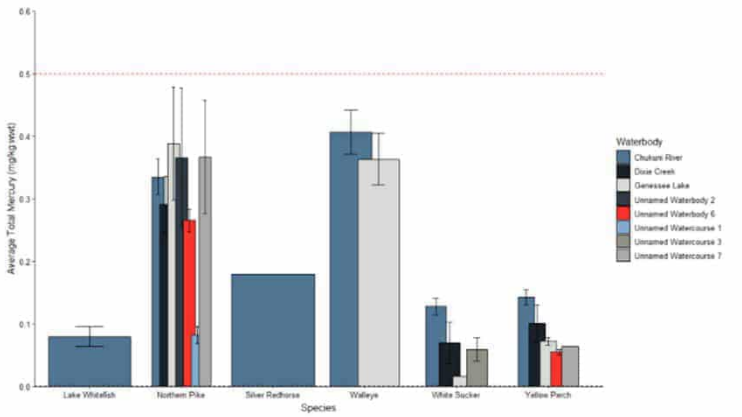


Figure C1-7: Average Total Mercury Concentration (± standard error; mg/kg wwt) in Large-bodied Fish Tissue

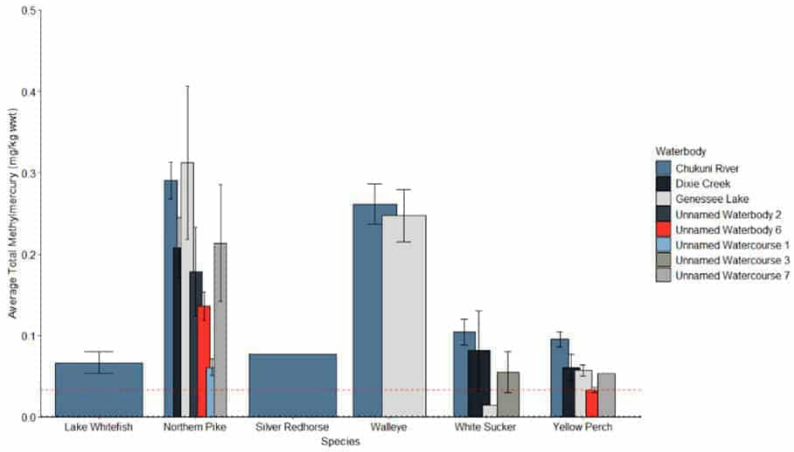
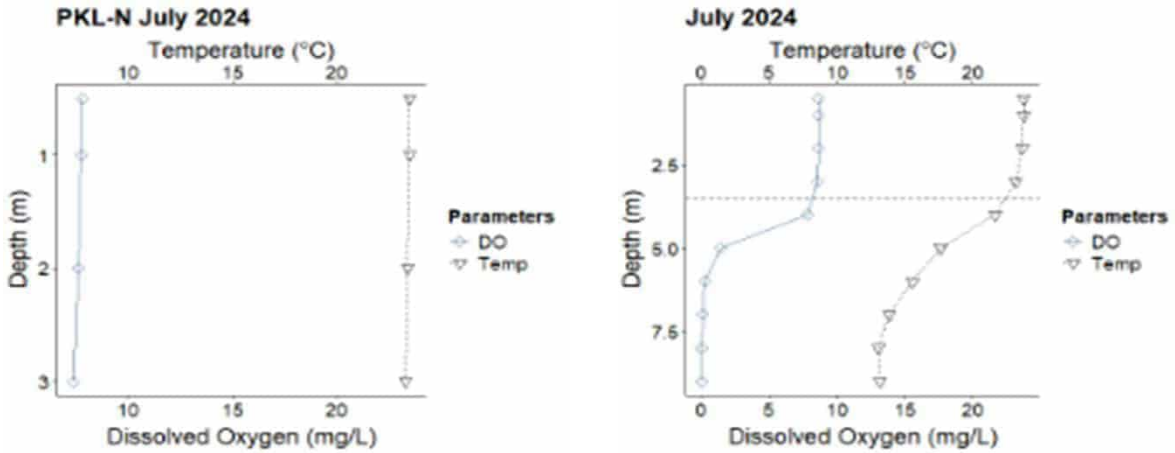


Figure C1-8: Average Total Methylmercury Concentration (± standard error; mg/kg wwt) in Large-bodied Fish Tissue

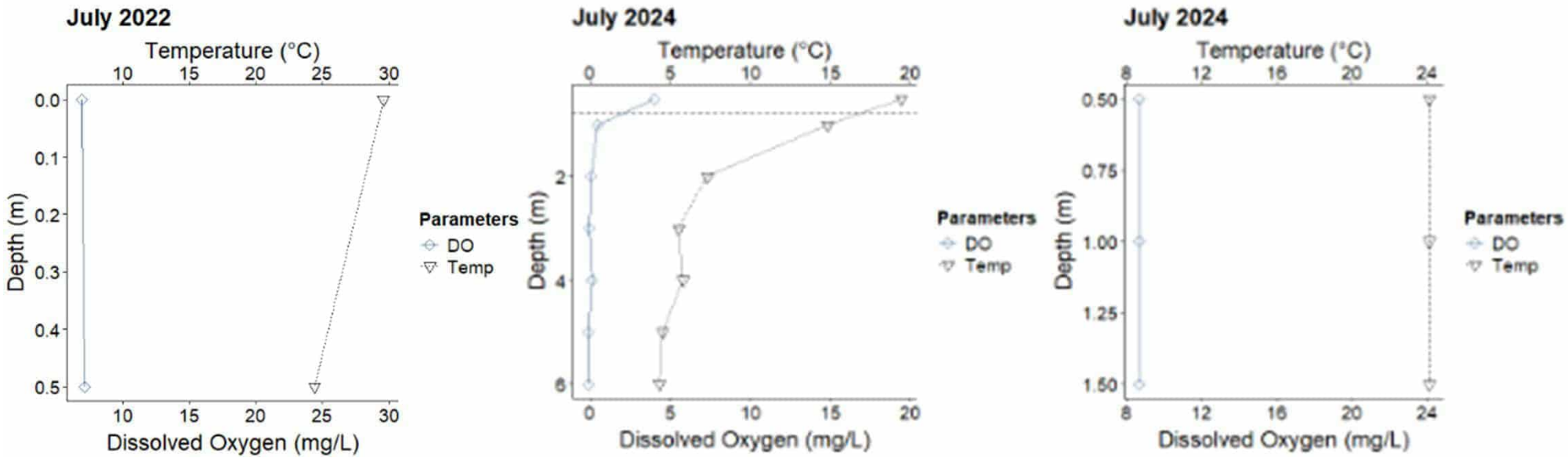
SURFACE WATER STUDIES

- Lake profile data including temperature and DO measurements at depth within the spring, summer, and fall sampling programs were used to graph seasonal differences.
- In-situ surface water quality (physicochemical) measurements were recorded at each sample location using handheld portable water quality meters.



Summer profiles collected from Pakwash Lake (left) and Genessee Lake (right).

SURFACE WATER STUDIES



Summer profiles collected from Unnamed Waterbody 1 (left), Unnamed Waterbody 2 (centre) and Unnamed Waterbody 6 (right).

LOWER TROPHIC AND PRIMARY PRODUCTIVITY ASSESSMENT

- The lower trophic and primary productivity assessments evaluated eutrophication indicators at the zooplankton level by biomass and periphyton by contaminant level and carbon and nitrogen isotopes.
- Zooplankton were sampled using a 0.13 m diameter, 63 µm mesh Wisconsin plankton net with a detachable collection bucket (codend) to collect samples from the water column.
- Periphyton were collected during the fall 2023 and 2024 field programs from natural and artificial substrate. A scraping guide was used to outline a known surface area (5 cm x 5 cm) on each rock and all periphyton biomass within was removed.
- Benthic invertebrates were collected using a petite Ponar grab sampler at 3 replicate stations within each sampling location during the fall sampling programs.

LOWER TROPHIC AND PRIMARY PRODUCTIVITY RESULTS

- Zooplankton species found in higher densities, include Ploima/Rotifer, Diplostraca/Cladocera and Cyclopoida.
- Greatest zooplankton biomass was consistently found during the spring and fall sampling events.
- Zooplankton results remained relatively consistent across sampling years with 2024 yielding slightly higher abundance by biomass.
- Periphyton samples from Chukuni River showed highest δ13C ratio from all the sites.
- Total invertebrate density was found to be highest within the unnamed watercourses within both years.
- Taxa richness was consistent across all sites and sampling years.
- Percent EPT taxa was found to be lowest within the unnamed watercourses and highest within the larger riverine watercourses.

SEDIMENT QUALITY METHODS AND RESULTS

- Surficial sediment samples were collected concurrently with benthic invertebrate community (BIC) samples using a Petite Ponar grab sampler at three replicate stations within each sampling location during the fall sampling program.
- Each ponar grab sampled a surface area of 0.023 m^2. Three grab sub-samples were taken at each station within similar depths and homogenized into one composite sample to account for localized habitat heterogeneity and to represent the array of substrates within the station.
- The substrate properties at each benthic station (i.e., metal and nutrient concentrations) were characterized to further support interpretation of the BIC data between and among sample locations.
- Notable exceedances of the guidelines throughout the site included TOC, arsenic, cadmium, chromium, copper, iron, manganese, mercury and nickel. Indicative of naturally elevated levels of metals within the area.

CONSULTATION

Fisheries Consultation

Date	Community	Summary
06/2023	WFN/LSFN	Orientation workshop focused on environmental baseline, fish habitat, and identifying gaps in workplans.
03/2024	WFN/LSFN	ALIA meeting discussed ongoing fisheries/wildlife assessments. Communities requested input on offsetting.
03/2024	General Public	Meeting with Pakwash Lake Owners Association to address water flow and fisheries compensation concerns.
07/2024	WFN/LSFN	Project update on fish/aquatic habitat data collection. Mitigation for Dixie Creek discussed.
09/2024	WFN	GBR shared project updates and preliminary fisheries compensation during Wabauskang Resource Day.
09/2024	LSFN	Open House in Frenchman's Head. Project status and fish compensation overview, with engagement of local trapline owner.
09/2024	LSFN	Open House in Kejick Bay. Same project and fish compensation overview as previous session.
09/2024	NWOMC	Update on site layout, fish compensation, closure planning, and tailings management. Site layout frozen pending discussions.

Fisheries Consultation

Date	Community	Summary
11/2024	WFN/LSFN	ALIA kick-off: project lifecycle, environmental priorities, baseline fish studies, and integration of Traditional Knowledge.
11/2024	WFN/LSFN	ALIA Day 2: focused on consent, community engagement, and aligning environmental/social/cultural objectives.
11/2024	WFN	Resource Meeting: Discussed archaeology, fish compensation, closure, and fish health concerns.
01/2025	WFN/LSFN	Two-day ALIA meeting: project updates, infrastructure changes, and discussion on historical impacts and fish compensation options.
01/2025	LSFN	GBR introduced upcoming fish compensation workshops and invited community involvement.
02/2025	LSFN	Workshop Dedicated to Fisheries: Covered fish compensation, fossils, wild rice, socio-economic studies, ALIA, and federal election uncertainties.
02/2025	LSFN	Workshop Dedicated to Fisheries: Focused on background checks, Indigenous consultation, and invasive species in Red Lake.

Fisheries Consultation

Date	Community	Summary
02/2025	LSFN	Workshop Dedicated to Fisheries: Discussed terminology for off-setting, wild rice integration, site tours, and invasive species.
02/2025	WFN	Workshop Dedicated to Fisheries: Covered trout/sturgeon populations, Dixie Creek spawning, water quality, and fish management plan.
02/2025	WFN/LSFN	Workshop Dedicated to Fisheries: Covered offsetting terms, water impacts, pond locations, plant/fish species, and Bruce Lake channel upgrade.
04/2025	ANA	GBR emailed info on fish offsetting plans and requested a meeting to discuss the information in more detail.
05/2025	WFN	Overview of past workshops, fish offsetting strategies, species at risk, and closure planning to date.
05/2025	LSFN	Overview of past workshops, fish offsetting strategies, species at risk, and closure planning to date.
06/2025	NWOMC	GBR gave project update and sought input for valued components in Impact Assessment, focusing on fish habitat.
06/2025	WFN/LSFN	EMC Meeting: Summary of fish compensation discussions and proposed scientific support for walleye sustainability in Wabaskang Lake.

ANALYSIS OF CHANGE

PREDICTED CHANGES TO FISH AND FISH HABITATS

- As per Section 8.8.2 of the TISG, the Impact Statement must describe the potential effect of the Project on Fish and Fish Habitat as defined in Subsection 2(1) the *Fisheries Act*.
- Fish and fish habitat is included as a federal Valued Component (fVC) for the Project because, fish and their habitats are key indicators of fishery sustainability, productivity and environmental health
- This fVC includes fish, the habitat that supports these fish, and the health of these fish populations.

Photo: Dixie Creek

REVIEW FOCUS FOR FISH AND FISH HABITATS

With respect to fish and fish habitat, given the context of the project as set out in the Tailored Impact Statement Guidelines, IAAC's review will focus specific attention on the following:

- Adverse changes to fish and fish habitat, specifically for Lake Whitefish, Walleye, Lake Trout and Lake Sturgeon.
- Changes to water flows and fish habitat in Dixie Creek and the Chukuni River watershed around the Project, and the development of feasible offsetting to inform more detailed federal permitting.
- Geographic extent of contaminants in the Chukuni River watershed and downstream watersheds, as a result of planned or unplanned effluent discharge, taking into account cyanide use and any contaminants generated by acid rock drainage or metal(loid) leaching, with consideration of how the mine closure plan and provincial permitting may address effects.
- Specifically, ensuring adequate site management of sulphates and other contaminants (e.g., mercury, copper, iron ions) that have the potential to contribute to methylmercury production and bioaccumulation downstream.
- Ensuring the site water management plan is adequately designed for future climate scenarios such that mitigation remains effective.

Photo: Pakwash Lake

FISH AND FISH HABITATS EFFECTS ASSESSMENT CRITERIA

Changes to Fish Habitat

- Change in area of waters frequented by fish (measured in m^2 and / or ha).
- Change in flow from baseline condition (measured in percent reduction), or water level change from baseline condition (measured in m).

Changes to Fish Communities

- Change in relative abundance of fish species.
- Change in fish community structure measured as (number of species and percent species composition).

Changes to Fish Health

- Change in water quality, measured in mg/L, µg/L or ppm.
- Change in fish tissue contaminants, measured milligrams per kilogram wet weight (mg/kg wwt with exception of Selenium which is in mg/kg dwt).
- Change in fish growth (measured as length and weight at age and condition factor).

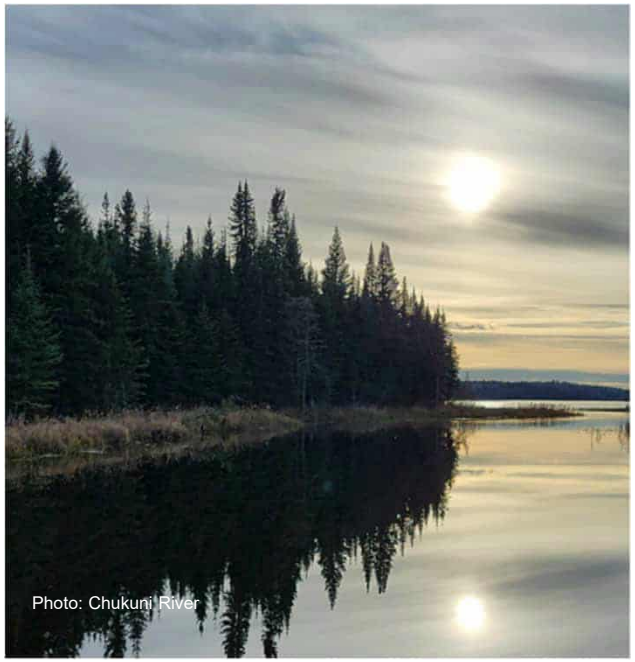
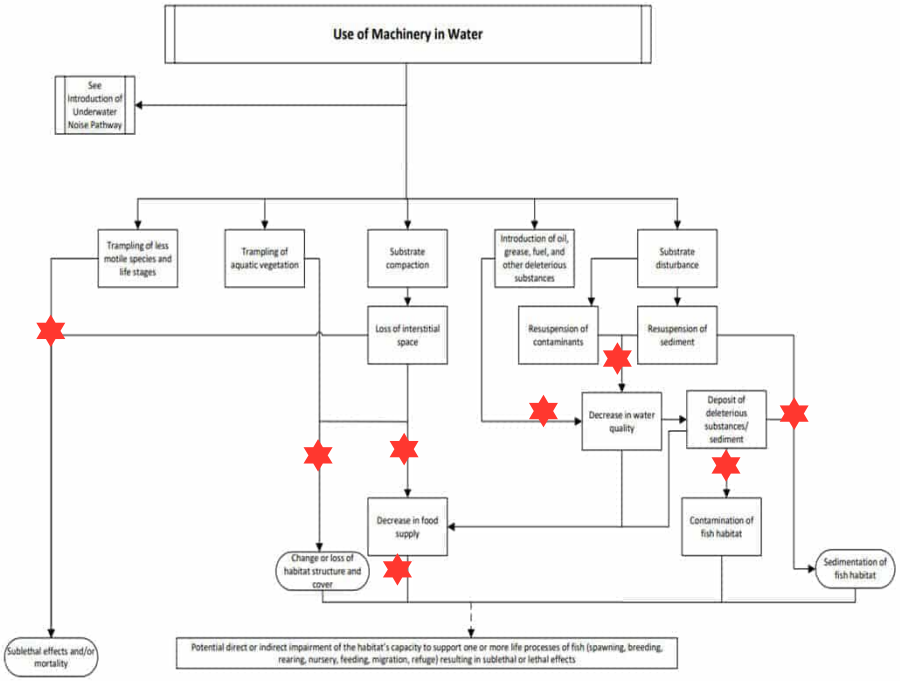


Photo: Chukuni River

FISH AND FISH HABITATS EFFECTS ASSESSMENT SIGNIFICANCE DETERMINATION

ATTRIBUTE	DESCRIPTION	CATEGORY
Magnitude	A qualitative or quantitative measure to describe the size or degree of the residual effects relative to baseline conditions	•Level I: Measurable residual effect on fish or fish habitat that would be offset with measures implemented in an approved offset plan as required under the *Fisheries Act*. •Level II: Level I and / or may affect the sustainability of local fish populations. •Level III: Level I/II and / or may affect the sustainability of regional fish populations.
Geographic Extent	The spatial extent over which the residual effect will take place	•Level I: Effect is restricted to the local study area (LSA) •Level II: Effect extends beyond the LSA but within the regional study area (RSA) •Level III: Effect extends beyond the RSA
Duration	The time period over which the residual effect will or is expected to occur	•Level I: Effect occurs over the short term: less than or equal to 3 years •Level II: Effect occurs over the medium term: more than three years but less than 31 years •Level III: Effect occurs over the long term: greater than 31 years.
Frequency	The rate of occurrence of the residual effect	•Level I: Effect occurs once, infrequently (or not at all) •Level II: Effect occurs intermittently or regularly •Level III: Effect occurs frequently or continuously
Reversibility	The extent to which the residual effect can be reversed	•Level I: Effect is fully reversible during the Project phases •Level II: Effect is partially reversible during the Project phases •Level III: Effect is not reversible during the Project phases.
Timing	A measure of whether the residual effect occurs during a sensitive period of the year	•Level I: Effects do not occur during a sensitive period or related effects are fully mitigated •Level II: Effects occur during a sensitive period and are partially mitigated •Level III: Effects occur during a sensitive period and are not mitigated

POTENTIAL EFFECTS



Project Component / Activities

Site preparation activities

Establishment and operation of water management and treatment facilities

Open pit mining

Underground mining

Management of rock and unconsolidated materials in stockpiles

Establishment of onsite fish habitat and compensation measures

Establishment of onsite aggregate operations

Construction of the starter embankments for the TMF

Construction and operation of buildings and infrastructure

Waste management

Commissioning of the process plant

Power supply

Employment and expenditures

DFO Pathways of Effects

Use of Machinery on Land / Alteration of Riparian Vegetation

Use of Machinery in Water

Placement of Materials in Water

Removal of Materials and Aquatic Vegetation from Water

Water Level / Flow Modification

Water Diversion

Dewatering

Detonation in or Near Water

Introduction of Underwater Noise

Water Quality Modification

Mitigation and Enhancement

Minimize footprint/overprinting

Implement ESC Plans

Avoid fish restricted activity period, work in the in-water timing windows

Design culverts to facilitate fish passage

Isolate in-waterworks

Complete maintenance

Use available standards and codes of practice for routine works

Implement measures of the FHOCP

Complete fish rescues

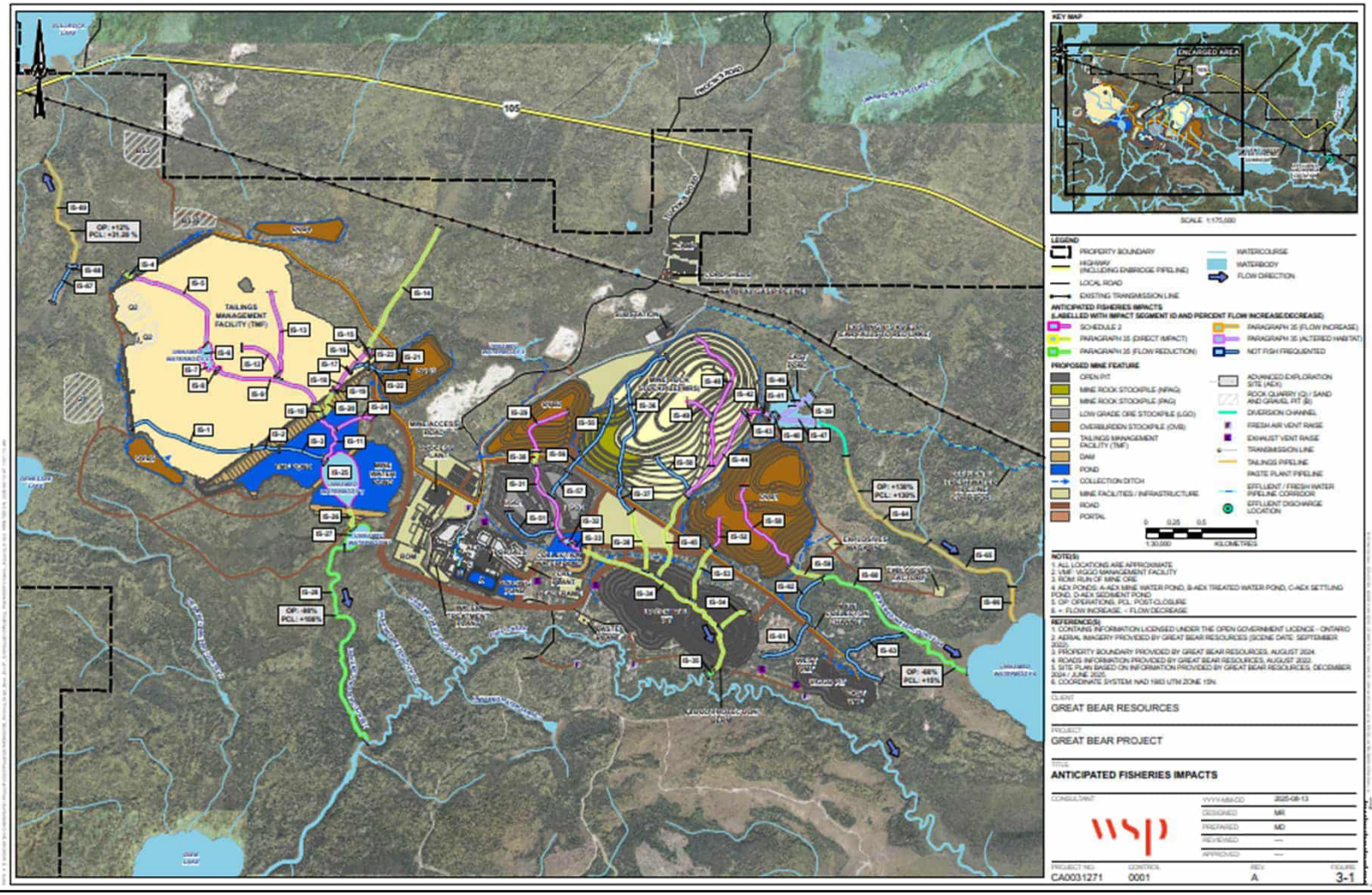
Use appropriately sized fish screens

Develop Blasting Plan

Develop a Spill and Emergency Response Plan

Water quality mitigations

Preliminary Paragraph 35 and Schedule 2 Impacts



ASSESSMENT OF RESIDUAL EFFECTS

PARAGRAPH 35: HADD OF FISH HABITAT AND MDMER SCHEDULE 2 IMPACTS

Changes to Fish Habitat

- Change in area of waters frequented by fish (measured in m^2 and / or ha).
- Change in flow from baseline condition (measured in percent reduction), or water level change from baseline condition (measured in m).

Direct Effects

- Overprinting of fish habitats.
- Habitat diversion.
- Water discharge changes to water quality (Schedule 2).

Indirect Effects

- Flow reduction.

Table 6-4: Summary of Combined Schedule 2 Waterbodies and Predicted HADD (Section 35)

Effect Type	Predicted Schedule 2 and HADD Surface Area (ha)
Schedule 2 Total	14.12
Section 35 Total	6.04
Combined Schedule 2 and Section 35 Total	**20.16**

Notes:
Anticipated impacts summarized in this table of the draft Plan are subject to change with additional regulatory discussions / consultation.
* Waterbodies not frequented by fish are not included in totals of residual effect (predicted HADD or Schedule 2)

Determination of Significance

- Temporary change to 20.16 ha of fish habitat will be counterbalanced with 25.5 ha of fish habitat offsetting and compensation measures.
- **With the implementation of mitigation measures residual effects to fish and fish habitat are not predicted and a determination of significance is not required.**

ASSESSMENT OF RESIDUAL EFFECTS

Changes to Fish Communities

- Change in relative abundance of fish species
- Change in fish community structure measured as (number of species and percent species composition)

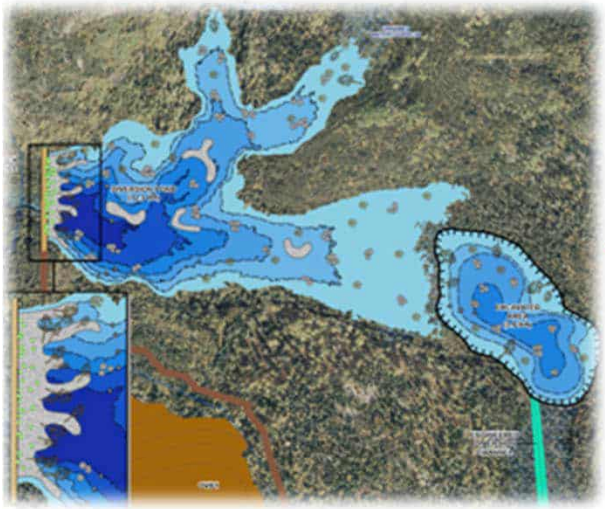
Changes to Fish Health

- Change in water quality, measured in mg/L, µg/L, or ppm.
- Change in fish tissue contaminants, measured milligrams per kilogram wet weight (mg/kg wwt with exception of Selenium which is in mg/kg dwt)
- Change in fish growth (measured as length and weight at age and condition factor)

Predicted Effects

- **Species assemblages** including species richness and abundance are expected to shift in favor of species that are more adaptable and resilient to the reduced flow conditions such as Central Mudminnow and Brook Stickleback.
- Flows in Dixie Creek are anticipated to return to near baseline conditions at closure, and **changes in fish communities are not predicted.**
- **Some positive shifts in species richness and fish abundance** may occur in the unnamed watercourses during final reclamation there are no residual effects to fish communities predicted.
- Changes to fish health are being supported by other sections including water quality and human and ecological health assessment, further work is required, although **not anticipated to deviate beyond the natural variation predicted** (i.e., MDMER critical effect size).

CANDIDATE OFFSETS AND COMPENSATION – ON SITE

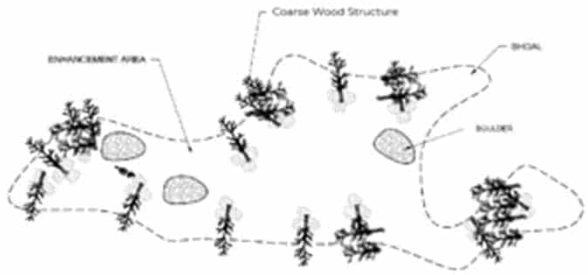


Replace the small lakes and ponds most effected by the project in the same general area of the Project,

The diversion Pond will pass clean water around the site and make a new pond.

More ponds can be excavated beside Dixie Creek.

Use Rocks and trees to provide natural cover for fish



CANDIDATE OFFSETS AND COMPENSATION OFF SITE

Complementary Measure - Fisheries Management Plan for Wabaskang Lake

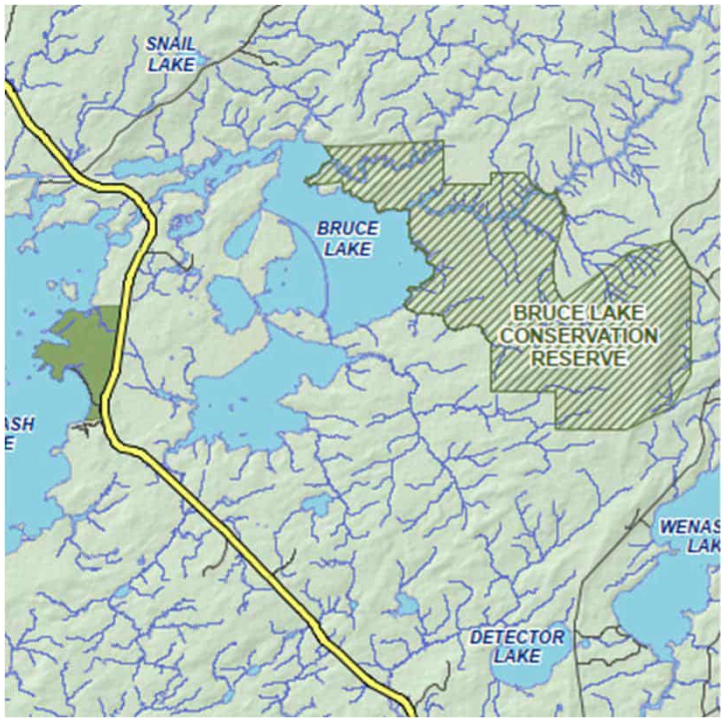
The Wabauskang First Nation has raised concerns regarding the fate of the Walleye population in the lake and the ability to maintain a productive population of naturally reproducing Walleye.

Suggested approach is to complete research to complement Broadscale Monitoring Programs such as hydroacoustic surveys, isotope analysis and telemetry to determine the existing populations abundance and diversity using less lethal techniques. The results from these monitoring programs would then feed into the development of a Fisheries Management Plan.

CANDIDATE OFFSETS AND COMPENSATION

Additional Candidate Offsets and Compensation Projects:

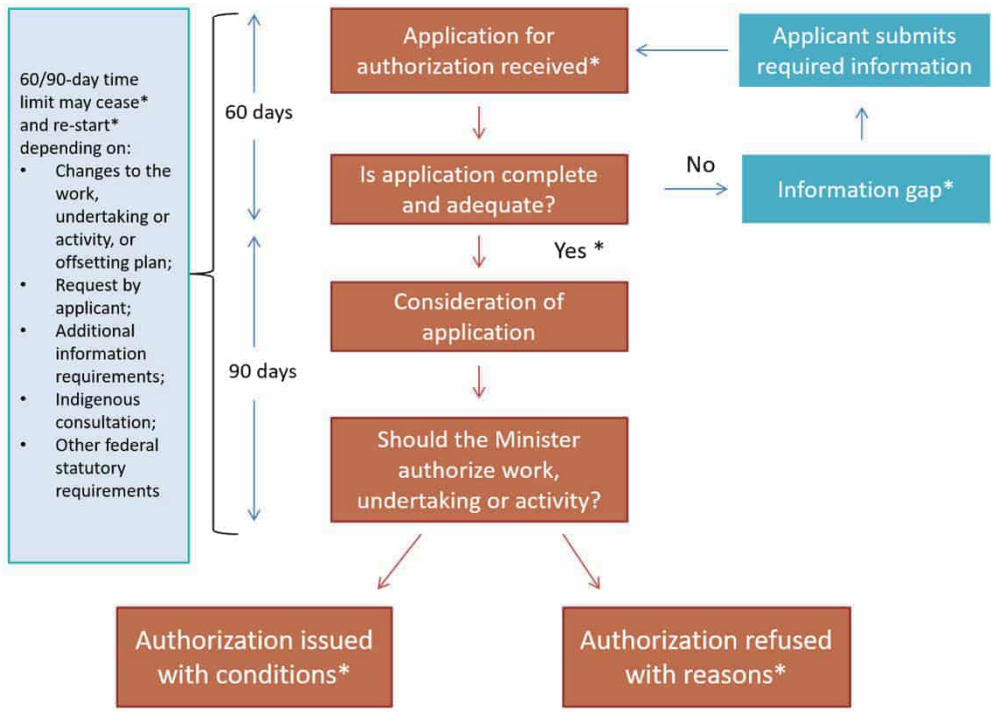
- Red Lake – Lake Trout Restoration Support
- Territorial Waters Restoration Hatchery
- Road Crossings
- Bruce Lake - Reconnect South and North Basins
- Invasive Species Management- Black Crappie near Wabauskang



PERMITTING REQUIREMENTS AND SCHEDULE

Fisheries Act Authorization Requirements for Paragraph 35 Works

- Contact information
- Description of proposed work, undertaking and activity
- Phases and schedule
- Location
- Consultation and engagement
- Description of fish and fish habitat
- Description of effects on fish and fish habitat
- Application of measures and standards
- Application of habitat credits
- Offsetting and compensation plan
- Financial guarantee

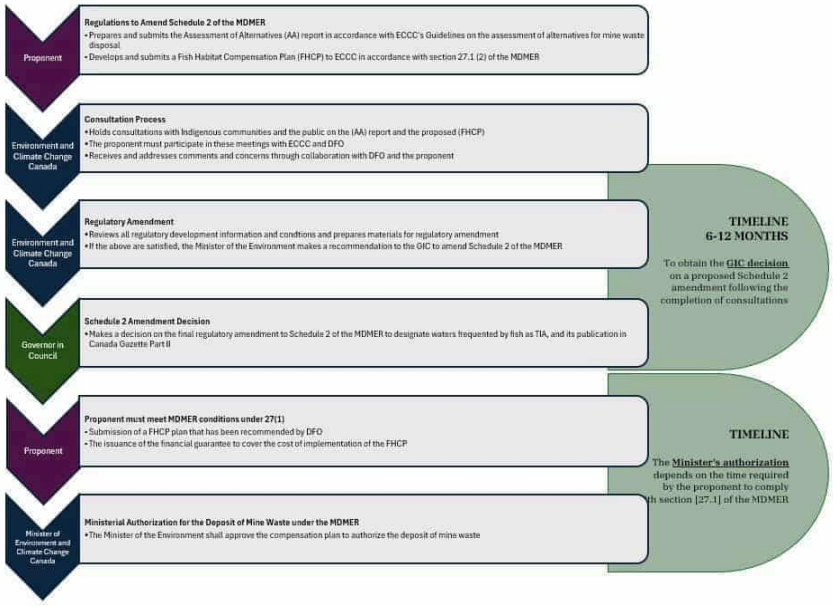


*Regulations require the Minister to notify the applicant

PERMITTING REQUIREMENTS AND SCHEDULE

Fisheries Act Authorization Requirements for Schedule 2 Mine Waste Deposits

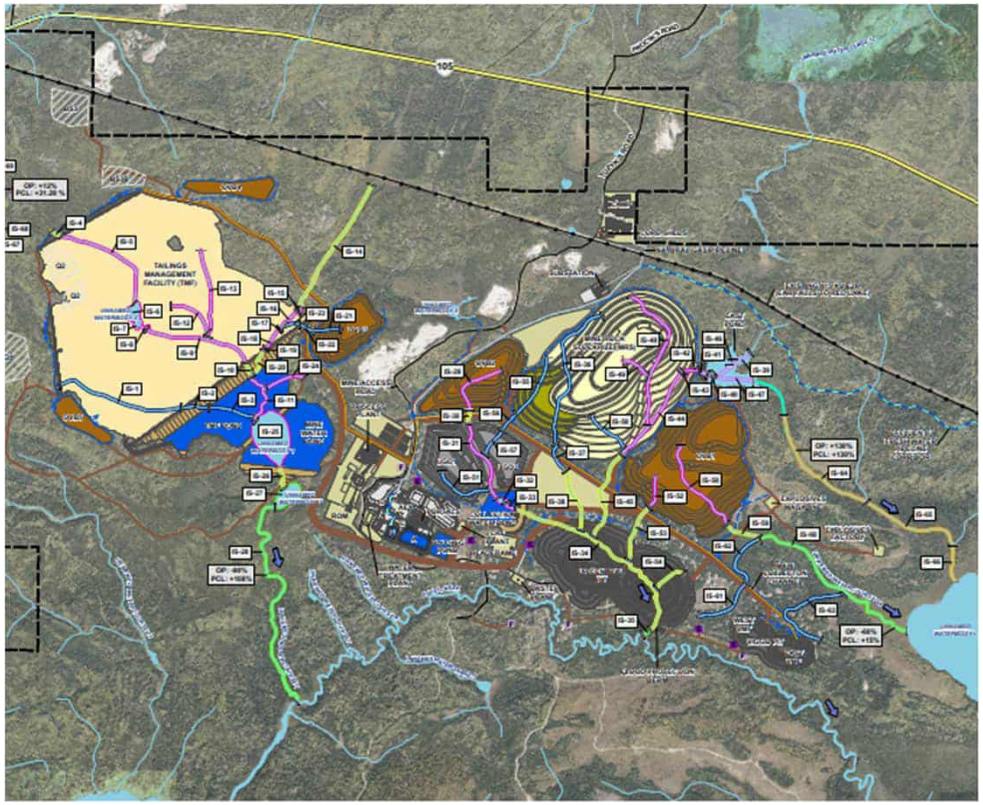
- For any project where the proposed deposit of mine waste into water frequented by fish or any place where deleterious substances from the deposit of mine waste may enter such water, will require an amendment to Schedule 2 of the MDMER and approval of a fish habitat compensation plan (FHOCP).
- Conditions can include:
  - Environmental Assessment completed and approved
  - Mine Waste Alternatives Assessment Report demonstrating best option approach (draft will be appended to the Impact Statement)
  - FHOCP to offset the loss of fish habitat from the use of the waterbody for mine waste disposal
  - Consultation and engagement.
- Approval from Minister of the Environment based on advice from DFO.



CHANGE PATHWAY OUTCOME AND MANAGEMENT

Zones of Change

- Determined by the physical overprinting of habitat by project facilities, changes in flow reductions and integrated water management system.
- Not predicted to extend into Dixie Creek due to large drainage area and resilience to the small Project footprint.
- No changes to fish and fish habitat are predicted within the Chukuni River based on its large drainage area and the ability to treat water to appropriate site-specific criteria.



CHANGE PATHWAY OUTCOME AND MANAGEMENT

Change Management

- Managed through regulatory mechanisms, such as:
  - *Fisheries Act* Authorization
  - Schedule 2 listing under the MDMER
  - *Lakes and Rivers Improvement Act* Approval
  - Permit to Take Water.
- Requirements and conditions of federal and provincial approvals, including for follow up programs and environmental monitoring.

Photo: Chukuni River

QUESTIONS AND NEXT STEPS

THANK YOU

wsp.com

August 2025

Great Bear Project

Federal Environmental Approvals

- Kick-off Meeting

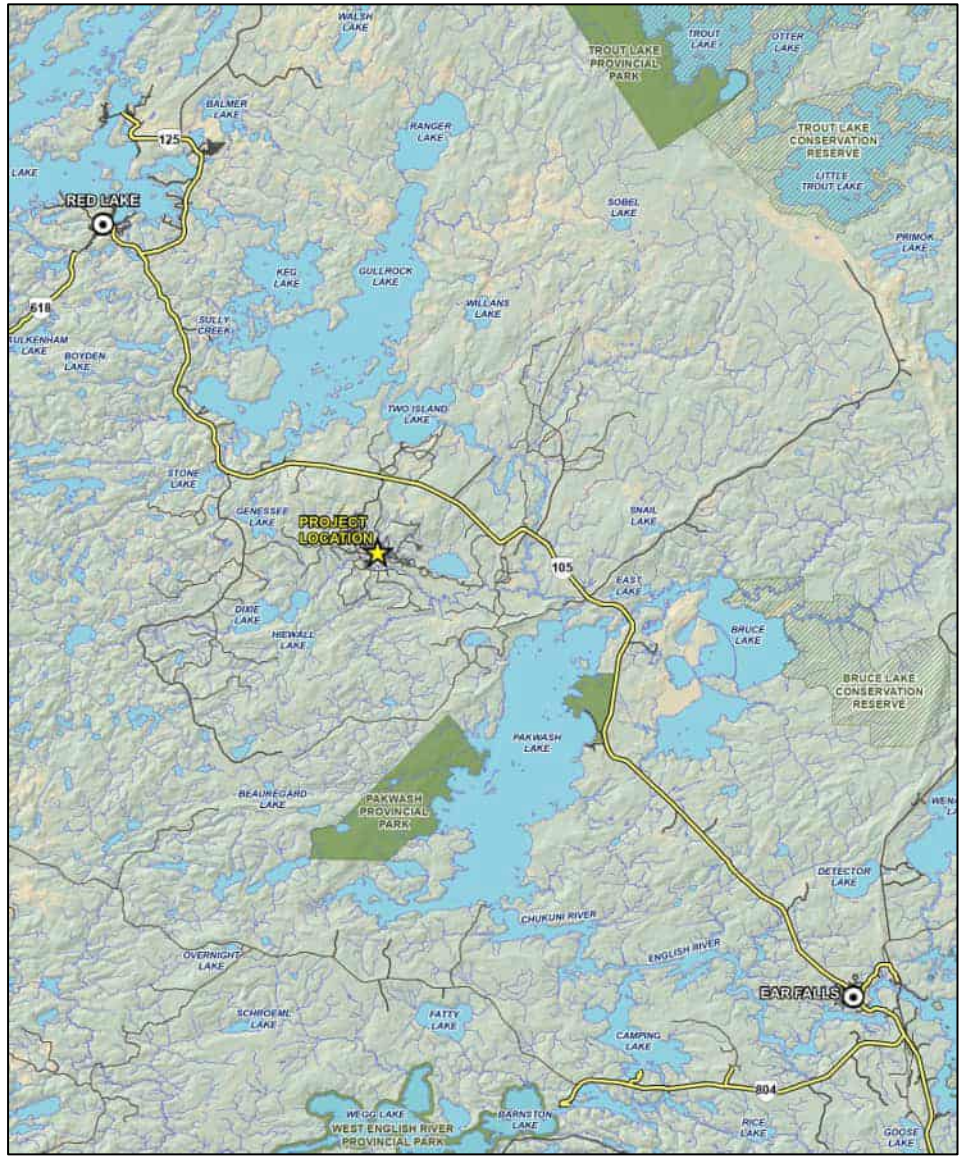
Background

GREAT BEAR PROJECT

— Great Bear Resources Ltd., a wholly owned subsidiary of Kinross Gold Corp., propose to develop a gold mine and processing complex on the Great Bear Property

— Located between Red Lake and Ear Falls along a regional highway in northwestern Ontario

— 3 years of construction followed by 26-year mine life



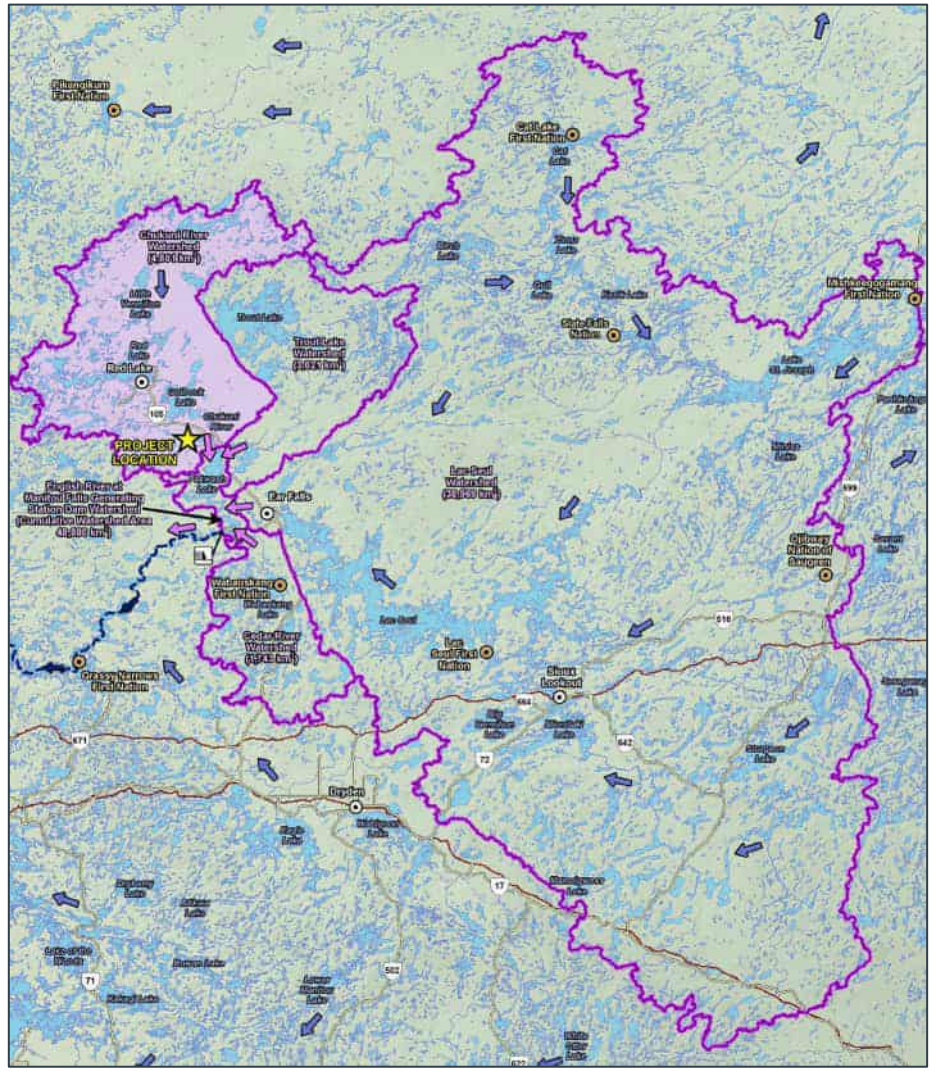
- **Environmental Baseline Studies:**
  - *extensive environmental baseline studies completed to date*
  - *multi-year, multi-season data collection where appropriate*
  - *designed programs were supplemented to respond to comments received from LSFN and WFN*
    - included enhanced eDNA studies as well as expanded surface water sampling program and extended mercury baseline
- **Indigenous Knowledge Studies:**
  - *Great Bear Resources funded and has also supported local Indigenous Nations in the completion of comprehensive TK / TLRU data collection*

02.

Environmental Background

GREAT BEAR PROJECT

- Landscape is glaciated bedrock terrain, with an undulating topography
- Project is situated at a tributary to the Chukuni River, a relatively large water system that flows into Pakwash Lake
- Pakwash Lake receives waters from a very large area and discharges southward into the English River system
- Local fish communities represent cool to coldwater species typical of northern Ontario



02.

Environmental Background

GREAT BEAR PROJECT

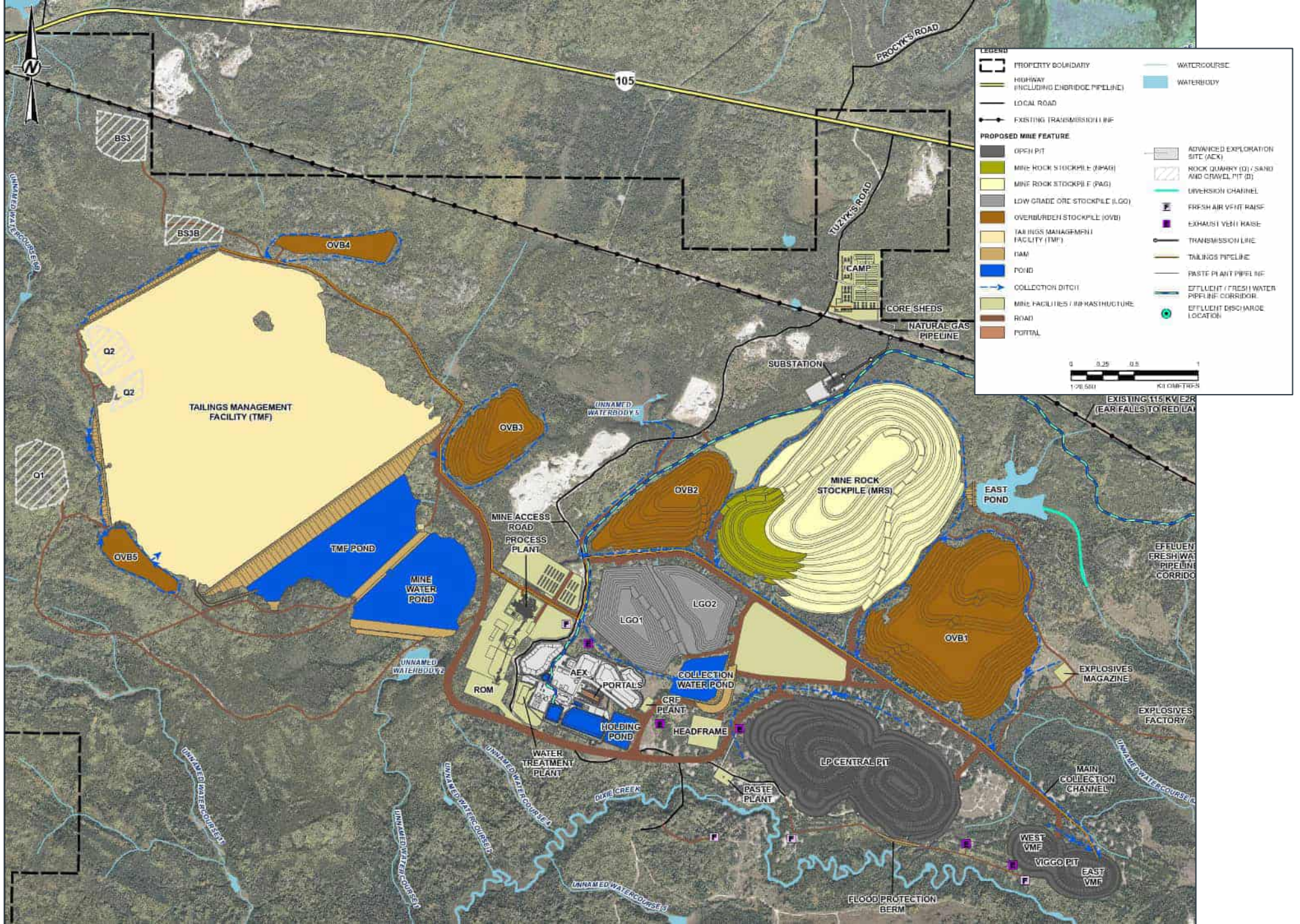
- The Sustainable Forest License holder has previously harvested timber on portions of the Great Bear Property
- Coniferous and mixed forests are present on much of the rest of the Property
- Mammals and birds typical of northwestern Ontario are present
- Mammal and bird SAR present include wolverine, bats and a few migratory birds

- Proposed mine is comprised of underground workings and two open pits
- A compact footprint proposed, re-using and expanding on facilities and infrastructure developed for the Advanced Exploration Program
- Waterbodies and watercourses have been avoided as reasonable
- Residual mineral wastes from mining and processing will be stored in a manner that supports long-term physical and chemical stability
  - *In-pit storage (concentrate tailings)*
  - *Tailings management facility (desulphurized tailings)*
  - *Re-use in underground mine backfill (mine rock and whole tailings)*
  - *Stockpiles (overburden and mine rock)*

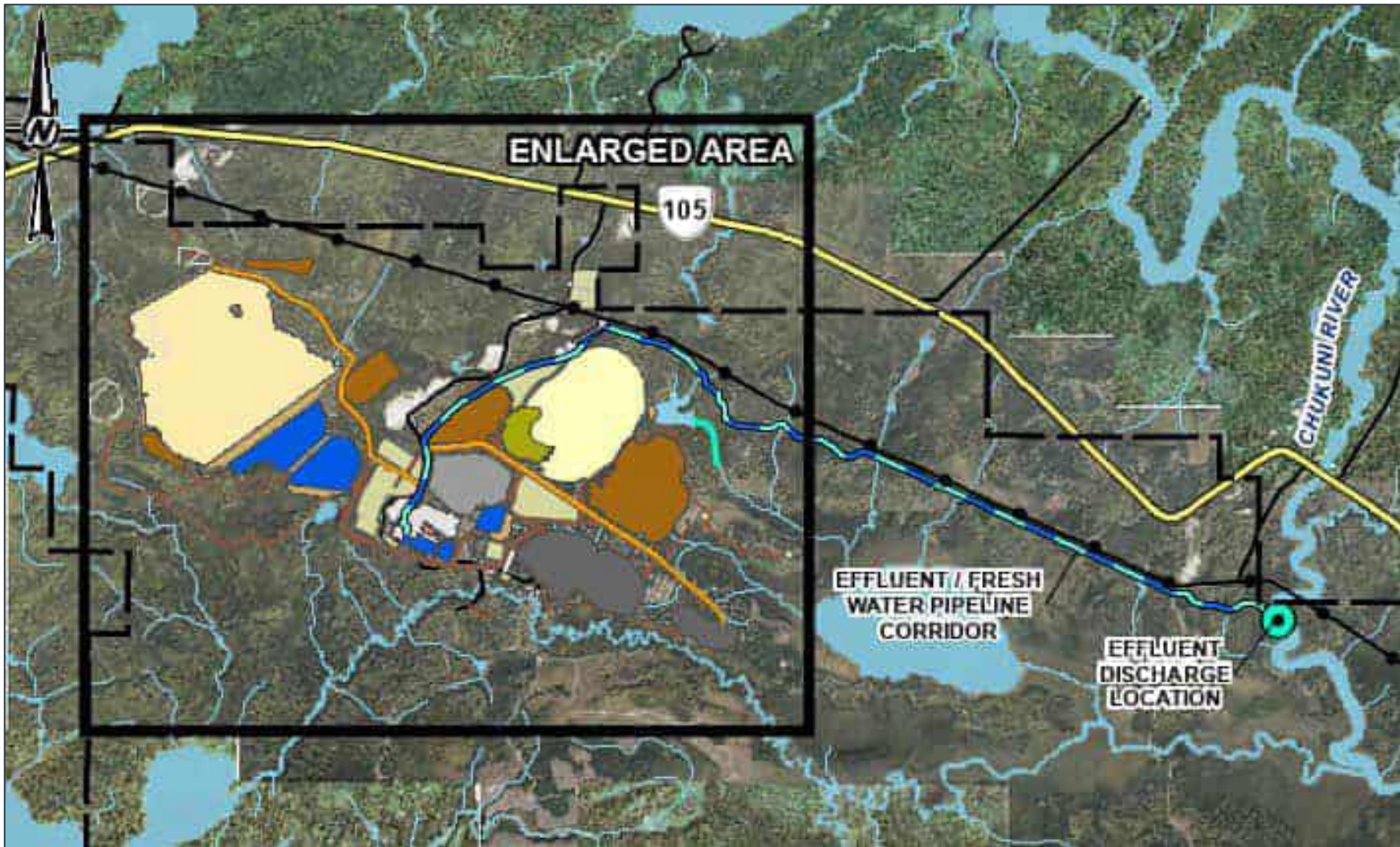
03.

Project Overview

GREAT BEAR PROJECT



— Fresh water will be taken, and treated effluent will be discharged to the Chukuni River, a large watercourse with high assimilative capacity



04.

Approval Framework

GREAT BEAR PROJECT

- Project has been designed to mitigate environmental effects and reduce the regulatory approvals required as reasonable
- Approvals will be required from both federal and provincial regulatory agencies
- No municipal approvals are required

Paragraphs 34 and 35 Authorizations, *Fisheries Act*, DFO:

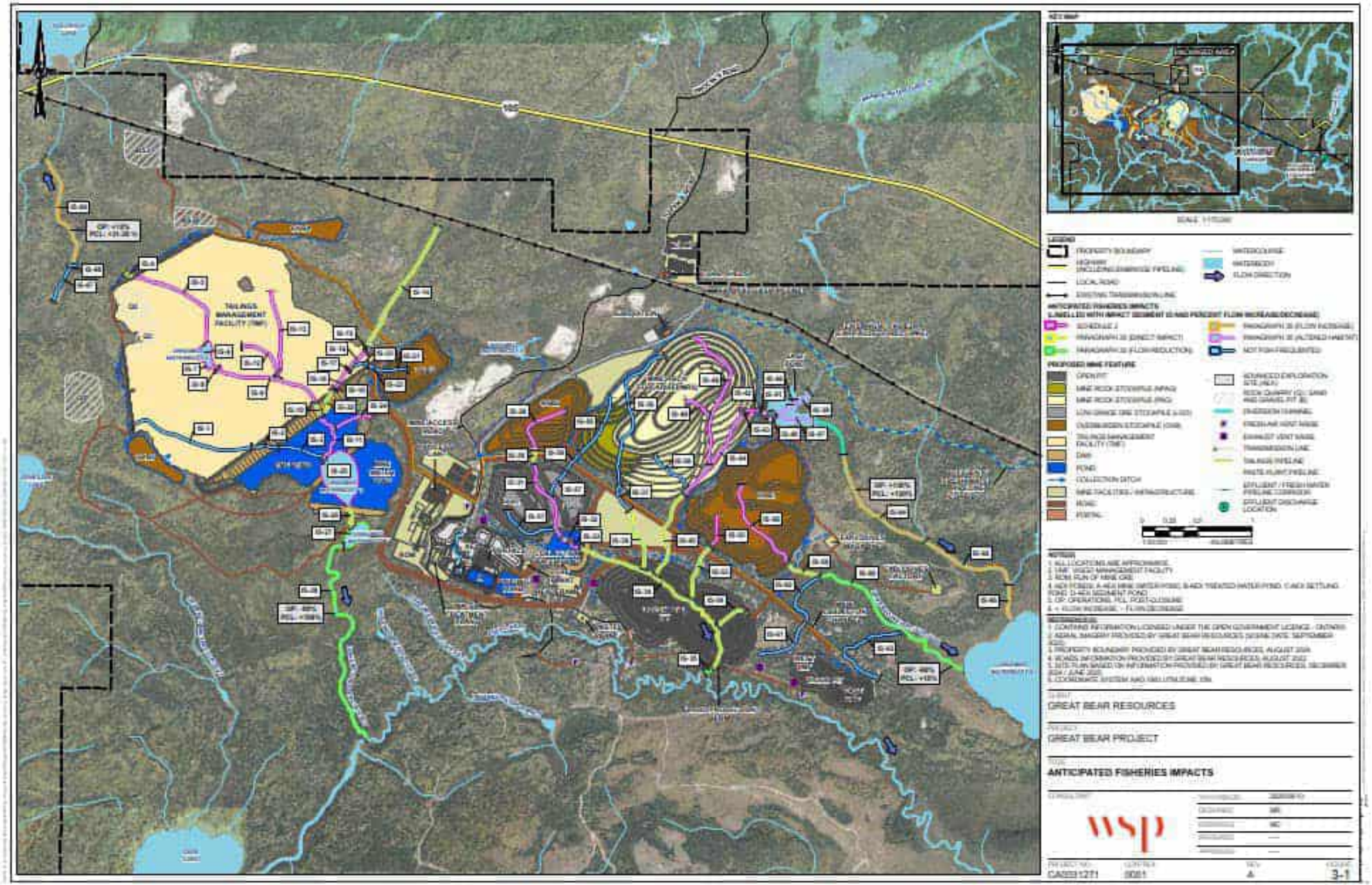
- A number of unnamed waterbodies and watercourses, as well as Dixie Creek and the Chukuni River, are present within or intersect the Project Area
- The Project will result in direct and indirect effects to fish and fish habitat
- Authorization(s) will be required for Project-related facilities and activities that could result in the HADD, for the construction and operation of the following facilities:
  - *LP Central pit and associated infrastructure*
  - *Laydown areas*
  - *Freshwater diversions*
  - *Water intake and discharge structures*
  - *Roads, pipelines and other infrastructure.*

- There will also be indirect impacts to local watercourses that support fisheries requiring authorization from:
  - *Localized lowering of the groundwater table by mine dewatering*
  - *Diversion of natural runoff and surface flow away from Project facilities*
  - *Collection and treatment of runoff from within the Project site for discharge to the Chukuni River.*
- A combined Offsetting Plan for the Paragraph 35(2)(b) Authorization and a Fish Habitat Compensation Plan for the Schedule 2 MDMER listing has been prepared in draft
- The draft plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated plan will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

05.

Federal Approvals
– *Fisheries Act*

GREAT BEAR PROJECT



Amendment to Schedule 2 of the MDMER, *Fisheries Act*, ECCC (DFO):

- Required for fish-frequented watercourses and waterbodies overprinted by the:
  - *Tailings management facility*
  - *Mine rock, ore and overburden stockpiles*
  - *Contact water ponds*.
- The draft combined Offsetting Plan and Compensation Plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated plan will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

Amendment to Schedule 2 of the MDMER, *Fisheries Act*, ECCC (DFO):

- Required for fish-frequented watercourses and waterbodies overprinted by the:
  - *Tailings management facility*
  - *Mine rock, ore and overburden stockpiles*
  - *Contact water ponds*.
- An alternative assessment for mine waste disposal has been prepared to support the amendment to Schedule 2 in the prescribed format as per the ECCC (2016) guidelines
- The draft alternative assessment will be shared with ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated assessment will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

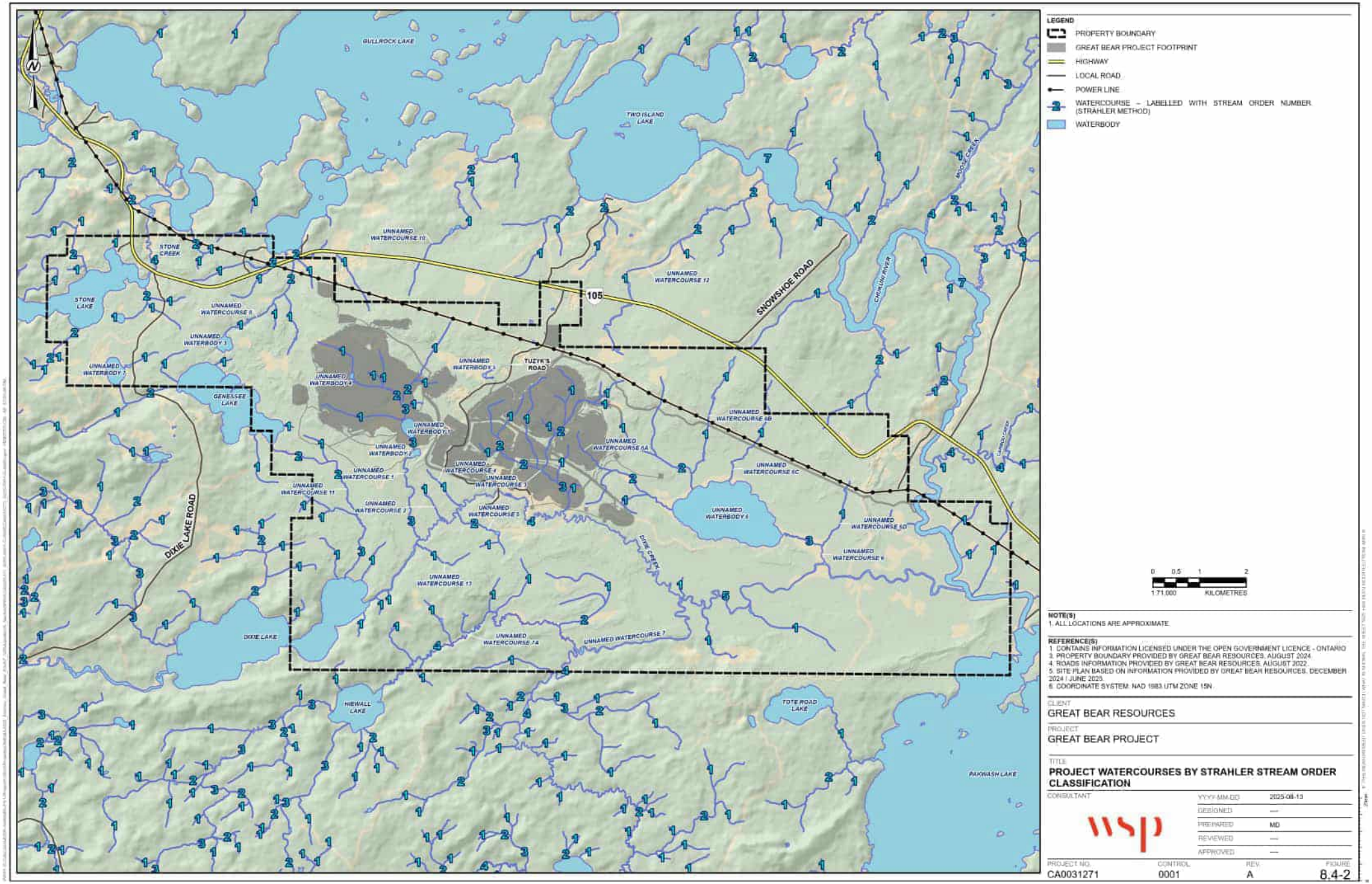
Works in Navigable Waters, *Canadian Navigable Waters Act*, TC:

- There are no watercourses on the Schedule to the *Act* that will be affected by the Project
- Great Bear Resources has actively requested information regarding use of the waterbodies and watercourses during consultation and engagement activities
  - *To date, there has been no confirmation of past, present or planned future use of any of the unnamed waterbodies and watercourses within the Project Area or Dixie Creek from any Indigenous Peoples*
  - *There is known current and past use of the Chukuni River by Indigenous Peoples and members of the public*
- Information presented and comprehensive document submitted to TC in 2024 to support determination of navigability
- TC assessment remains outstanding

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT



- Majority of the minor watercourses / waterbodies within the Project Area that will be directly or indirectly impacted are stream orders 1 and 2)
- Many are very shallow, with intermittent flows at times of the year, or are blocked by natural vegetation overgrowth
- Accessibility is limited including due to land ownership / control
- There is no known use of these minor watercourses for navigation (recreation or past / current use by Indigenous peoples or the public)

UW-1 (July 2023)

UW-3 (June 2022)

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT

- Dixie Creek which passes through the Project Area is not known to have use or be used by Indigenous Peoples
- Shallow during parts of year with navigation constraints
- No proposed in-water works; existing bridge may be re-developed
- There will be an indirect reduction in flow and level from collection of contact water within the Project area
  - *Maximum reduction in flow in Dixie Creek will be about 10%, equivalent to a water level decrease of about 3 cm*

Dixie Creek -3 (July 2025)

- Based on knowledge of current and historic use by Indigenous Peoples and pending further guidance, Great Bear Resources has assumed that only the Chukuni River will be considered navigable
- An intake and outfall pipeline and diffuser will be established for the Project at the western shore of the Chukuni River
  - *The outfall for the Project into the Chukuni River has been sited to maximize diffusion and mixing of the treated effluent; accordingly, it may not be able to be classified as minor works under the TC Minor Works Order.*
  - *Approval under the Major Works Order (Category 2) is expected to be required*
  - *An Application will be submitted to the Navigable Protection Program.*
- Other approval requirements if any, to be determined based on TC assessment

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT

Chukuni River West Bank
(approximate pipeline location)

07.

Federal Approvals
- Other

GREAT BEAR PROJECT

- No other federal environmental approvals are anticipated to be required by Great Bear Resources for the Project
- Effects to migratory birds will be mitigated including through effective Project scheduling (thereby avoiding need for approvals)
- Explosives manufacturing and storage will be under the care and control of a qualified contractor, and approvals will be obtained by that company as needed

Approval	Description
Closure Plan *Mining Act, Build More Mines Act* Energy and Mines	The professionally-certified Closure Plan will regulate mine-related facilities and activities on the Project mining leases, including dams not otherwise approved. Financial assurance for the estimated reclamation costs will be provided to the Province. A draft focussed on the technical aspects of progressive and final reclamation will be appended to the Impact Statement.
Environmental Compliance Approval – Air and Noise *Environmental Protection Act* Ministry of Environment Conservation and Parks (MECP)	Approval is required for air emissions and noise from the Project, such as from the mine and process plant.
Environmental Compliance Approval – Industrial Sewage Works *Environmental Protection Act* MECP	The integrated water management and treatment system including the collection ponds, TMF, TMF pond, minewater pond and water treatment plant will require approval from the Province. A separate approval from the Province may be required for the construction and operation of a domestic sewage treatment plant for the Project.

Approval	Description
Environmental Compliance Approval – Waste Management *Environmental Protection Act* MECP	Operation of a waste transfer site if required for the temporary storage and periodic transport of wastes off site for further management.
Overall Benefit Permit *Endangered Species Act* MECP	Project-related effects to a protected species or related habitat is required in return for providing an overall benefit to the species in Ontario. Consultation is ongoing with the MECP regarding potential permit requirements for the Project including potential mitigation measures.
Permit to Take Water *Ontario Water Resources Act* MECP	Approval is required to withdraw 50,000 L or more per day from a groundwater or surface water source (fresh water supply, by-pass pumping during construction and dewatering activities).
Aggregate Resource License *Aggregate Resource Act* Ministry of Natural Resources (MNR)	Dedicated extraction of sand and gravel and the quarrying of rock on the mining lease to provide aggregate for use.

Approval	Description
Permit to Cut (Forestry Resource License) *Crown Forest Sustainability Act* MNR	To approve the cutting of merchantable timber reserved to the provincial Crown for site development.
Scientific Collection Permit *Fish and Wildlife Conservation Act* MNR	Required to relocate fish from watercourses and waterbodies that will be affected by the Project prior to in-water construction.
Work Permits (or Letter of Authority) *Lakes and Rivers Improvement Act, Public Lands Act* MNR	Required for work on provincial Crown land including within any setback and / or below the high water mark of watercourses and waterbodies.
Work Permits *Lakes and Rivers Improvement Act* MNR	Required for dams on provincial Crown land below the high water mark of watercourses and waterbodies.
Land Use Permit *Public Lands Act* MNR	Required for land tenure for facilities located on provincial Crown land not governed by the *Mining Act*.

09.

Overview of Consultation to Date

GREAT BEAR PROJECT

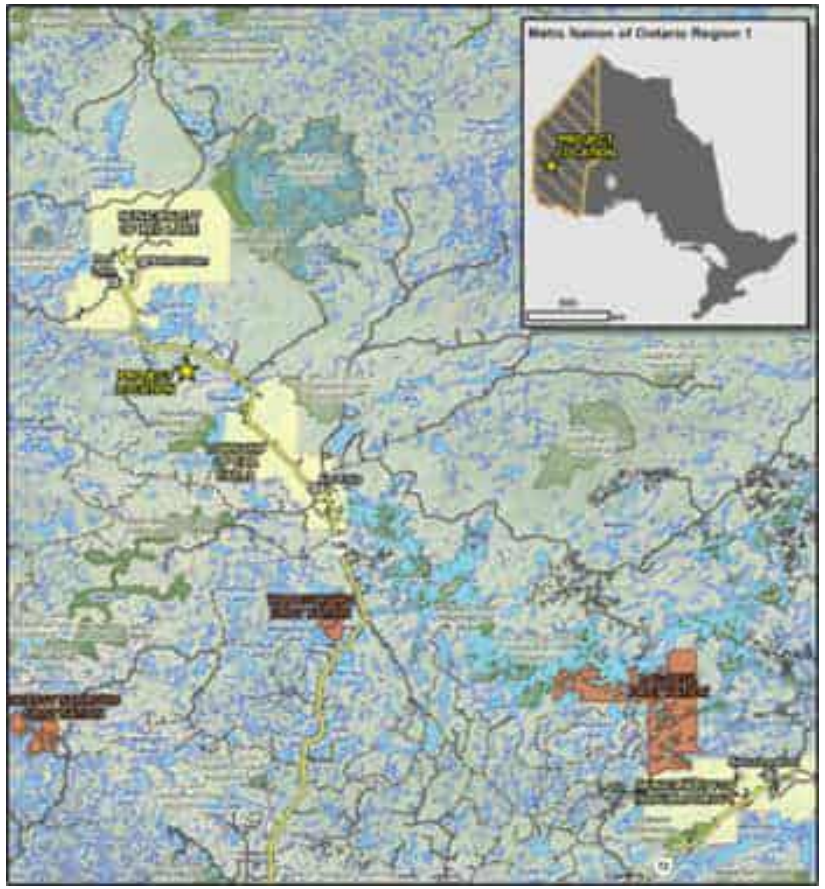
- Consultation and engagement has been ongoing since the property was purchased (2021)
- Indigenous communities, government agencies and ministries, and stakeholders anticipated to have an interest in the Project were identified by IAAC and Great Bear Resources during the Impact Assessment Planning Phase
- Guidance was also provided by the Province for the Advanced Exploration Program
- The initial list of interested parties has evolved over time and has been maintained and updated by Great Bear Resources

09.

Overview of Consultation to Date

GREAT BEAR PROJECT

- Engagement efforts to date have included several Indigenous communities with cultural and spiritual ties to the Project Area:
  - *Asubpeeschoseewagong Netum Anishinabek (Grassy Narrows First Nation)*
  - *Lac Seul First Nation*
  - *Northwestern Ontario Métis Community*
  - *Wabauskang First Nation*
- Regular meetings, open dialogue, and collaborative discussions have been held with interested communities, to address concerns related to environmental impacts, cultural heritage protection and socio-economic benefits



09.

Overview of Consultation to Date

GREAT BEAR PROJECT

Great Bear Resources' objectives for engagement on the Project include to:

- *Inform and update local area stakeholders, groups, Indigenous communities, and government agencies about the Project*
- *Share information and gather feedback on Project documents including but not limited to: environmental baseline studies, Project Description, closure plan, approval applications and the Impact Statement*
- *Understand Indigenous treaty rights and interests in the area that have the potential to be affected by the Project*
- *Document and respond to any issues or concerns raised by interested parties*
- *Demonstrate and discuss how comments heard previously were addressed through Project designs or management practices*
- *Meet regulatory requirements for engagement, to the extent reasonable.*

- Regarding the anticipated Federal approval processes, Great Bear Resources' objectives for engagement on the Project to date include to:
- Navigable waters:
  - *Obtain feedback from local Indigenous communities regarding the past, current and future use of local watercourses and waterbodies that may be affected by the Project*
- Fish and fish habitat:
  - *Present potential effects to fish and fish habitat, and request comments on proposed offsetting and compensation measures and obtain guidance on potential complementary measures*
- Mine waste alternatives:
  - *Present mine waste alternatives in community and committee meetings, and to technical review representatives to obtain feedback and address potential concerns.*

10.

Impact Statement Schedule

GREAT BEAR PROJECT

— Impact Statement

— *Document is in preparation*

Submission 1 - Q3 2025 (Sections 1, 2, 4, 5, 19, 22)

- *Introduction, Environmental Setting, Alternatives Assessment, Project Description and Activities, Environmental Approval Framework and Requirements, Authors and Qualifications*

Submission 2 – Q4 2025 (Sections 6, 7, 8, 9, 16, 17, 18)

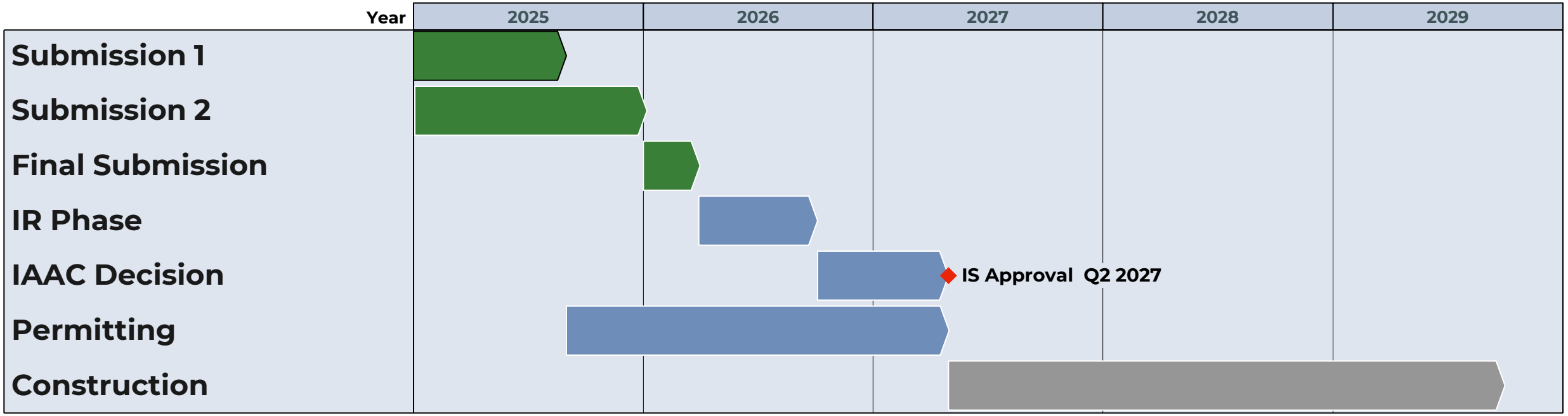
- *Effects Assessment Methodology, Analysis of Changes to pVCs, Changes to Fish and Fish Habitat, Changes to Migratory Birds, Accidents and Malfunctions, Effects of the Environment, Summary of Benefits, Related Technical Appendices*

Submission 3 - Q1 2026 (Sections 3, 10, 11, 12, 13, 14, 15, 20, 21)

- *Participation and Engagement, Indigenous Peoples LSFN, Indigenous Peoples WFN, Indigenous Peoples ANA, Indigenous Peoples NWOMC, Indigenous Peoples Red Lake and Ear Falls, Cumulative Effects, Environmental Management and Follow-up, Conclusions*

— *Technical workshops continue to be planned with regulatory agencies*

Overall Project Approvals / Construction Timeline



- **Federal approvals:**
  - *Requested to be concurrent with the Impact Assessment*
    - Information needs of the IAAC Permitting Coordination Team to prepare the Detailed Permitting Plan requested
    - Timeline for issuance of Detailed Permitting Plan
  - *Path forward discussion on coordination*
- ***Fisheries Act:***
  - *Draft Offsetting Plan for the Paragraph 35(2)(b) Authorization and a Fish Habitat Compensation Plan for the Schedule 2 will be available shortly*
    - The draft Plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
    - Engage and review updated draft Plan concurrent with Impact Statement
    - Authorization approval process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Authorization(s)*

- ***MDMER, Fisheries Act:***
  - *A draft alternative assessment in the prescribed format as per the ECCC (2016) guidelines will be available shortly*
    - The draft alternatives assessment will be shared with ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
    - Engage and review updated draft Plan concurrent with Impact Statement review
    - Schedule 2 process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Schedule 2 process*
- ***Canadian Navigable Waters Act:***
  - *Update on timing of TC decision request to allow for effect Project design and approval planning*
    - Major Works approval process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Navigable Waters approvals process*

THANK YOU

Kinross Great Bear / IAAC Touchpoint Meeting

Client Name:	Kinross Gold Corporation	Project No:	
Project Name:	Great Bear Project		
Meeting Type:	In-Person [0]	Virtual [8]	Hybrid [0]
Location:	Virtual		
Time:	1000 AM ET – 1030 AM ET		
Date:	August 29, 2025		
Executive Summary:	Summary notes provided below Key Words: Methylmercury.		
Key Actions:	a. Great Bear i. None at this time. b. IAAC i. None at this time.		

1. Attendance

Kinross Great Bear

- Aaron MacDonell
- Connor Devereaux
- Ashley Moncrief
- Luke Crosby
- Fiona Christiansen (SLR)

Impact Assessment Agency of Canada

- Ian Martin
- Keira Smith
- Elizabeth Chan

2. Agenda and Attachments

None provided.

3. Meeting Notes

- Methylmercury – IAAC request to join the technical discussions with LSFN/WFN. If they are open, GBR would support IAAC participation (GBR would like an initial meeting with the communities and their technical experts). IAAC are offering funding for participation in technical meetings. Condition for funding is that they would be Agency involvement. ACTION: GBR to follow up with IAAC after meeting with community
- GBR would like IAAC to support data request that has been made by GBR. Branfireun paper has not been peer reviewed or published. GBR has made two requests to date and both levels of government have

been asked to request the data. Hypotheses are unclear and data is required for transparency. ACTION – IAAC would like this request in writing

- Meetings - Permitting coordination meeting schedule Sep 19.Next key issue briefing on Migratory Birds will occur next week
- ANA - No responses from ANA have been received by GBR. IAAC also confirmed they have not been successful
- ETR – IAAC to follow up with an email (ACTION). Still looking for 3rd member. Final confirmation of two members is also in progress
- Key Issue Briefing (Effects to Indigenous Peoples) – once work is far enough along IAAC would like a session for GBR to present effects before submission. This will be in Q1 2026

GREAT BEAR PROJECT

IMPACT STATEMENT SECTION 9: MIGRATORY BIRDS

September 2025

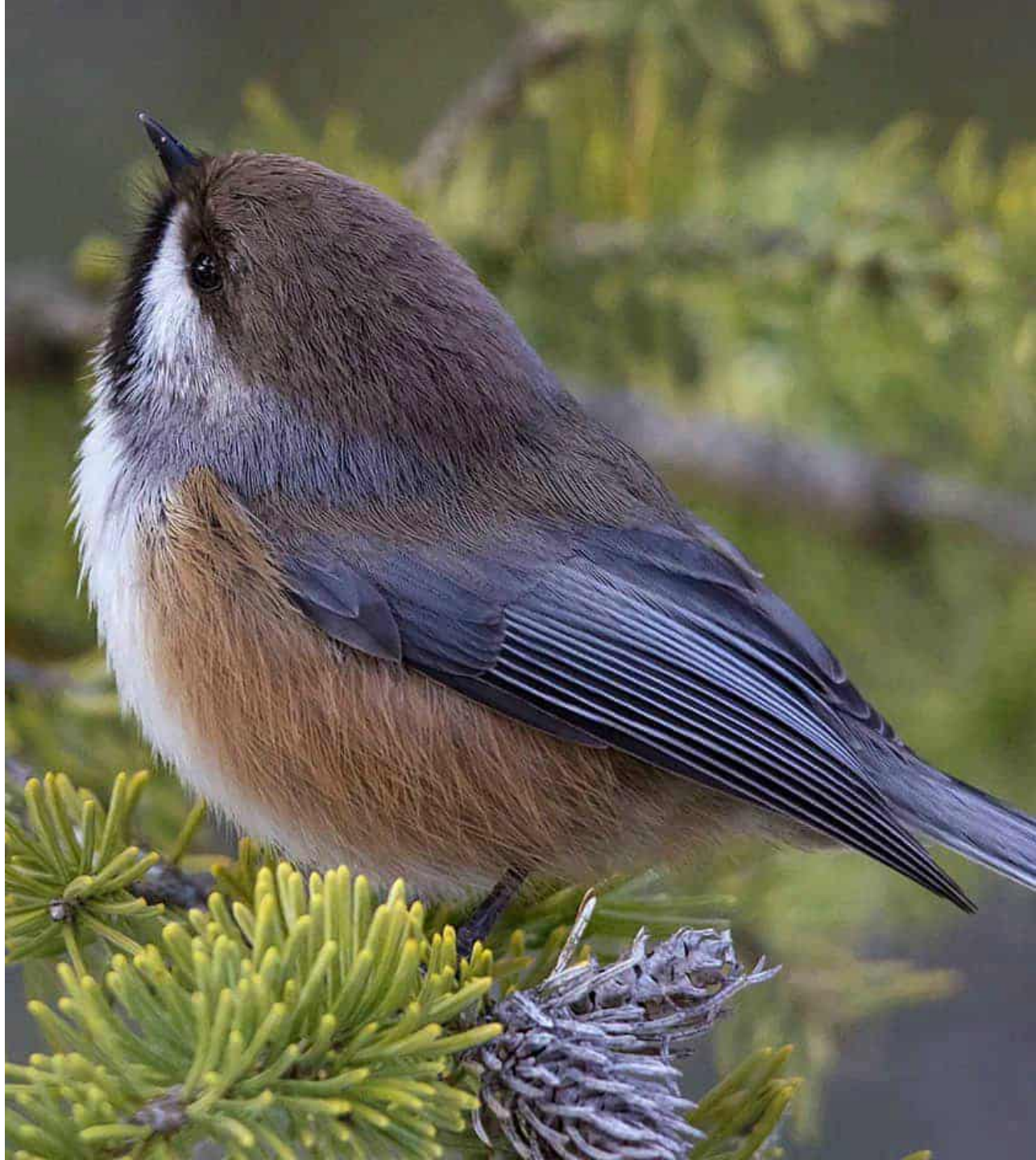


Photo Credit: David Arndt

Photo Credit: Great Bear Resources

INTRODUCTION

AGENDA

- Overview of Impact Assessment Methodology
- Summary of the Baseline Bird Data
- Overview of the Assessment of Potential Effects on Birds
  - Linkages amongst Valued Components
  - Temporal and Spatial Assessment Boundaries
  - Assessment Criteria
  - Analytical Methods
- Preliminary Results
- Determination of Significance
- Approach to Addressing Uncertainty

Photo Credit: Linda Loo

OVERVIEW OF IMPACT ASSESSMENT METHODOLOGY

Photo Credit: Great Bear Resources

OVERVIEW OF IMPACT ASSESSMENT METHODS

Baseline Conditions: Characterize the baseline conditions for migratory birds (a valued component under federal jurisdiction; fVC), as well as temporal and spatial variability.

Potential Effects: Determine the potential direct and indirect (and induced as applicable) effects of the Project on the fVC

Mitigation Measures: Apply appropriate mitigation measures to reduce or eliminate potential effects.

Effects Assessment: Assess residual effects after mitigation has been applied.

Significance: Determine the significance of the residual adverse effects for the fVC.

Cumulative Effects: Assess the potential for overlapping effects with other adjacent projects, if there are residual adverse effects for the fVC.

Photo Credit: Great Bear Resources

SUMMARY OF THE BASELINE BIRD DATA

- Existing Conditions

BASELINE DATA - MIGRATORY BIRDS

- Protected migratory birds use Canada's boreal forests including the proposed Project location
- Although Migratory Birds is the valued component under federal jurisdiction (fVC), notable species not covered by the MBCA are mentioned

SUMMARY OF EXISTING CONDITIONS

Regional Context

- The Project is located primarily within the Red Lake Boreal Forest Region of Ontario near the Manitoba border.
  - This Region contains approximately 73% forest cover heavily influenced by natural disturbance.
  - Predominate tree species are black spruce, jack pine, balsam fir, and trembling aspen.

- The Red Lake forest section is also located within Lake Wabigoon Ecoregion 4S.
  - Influenced by adjacent prairie climate
    - Cool dry climate and summer droughts
  - Precambrian bedrock with bedrock exposures, including areas of expected metal leaching / acid rock drainage rock
  - Soil profile where present, is primarily Brunisols with some Luvisols and Mesisols

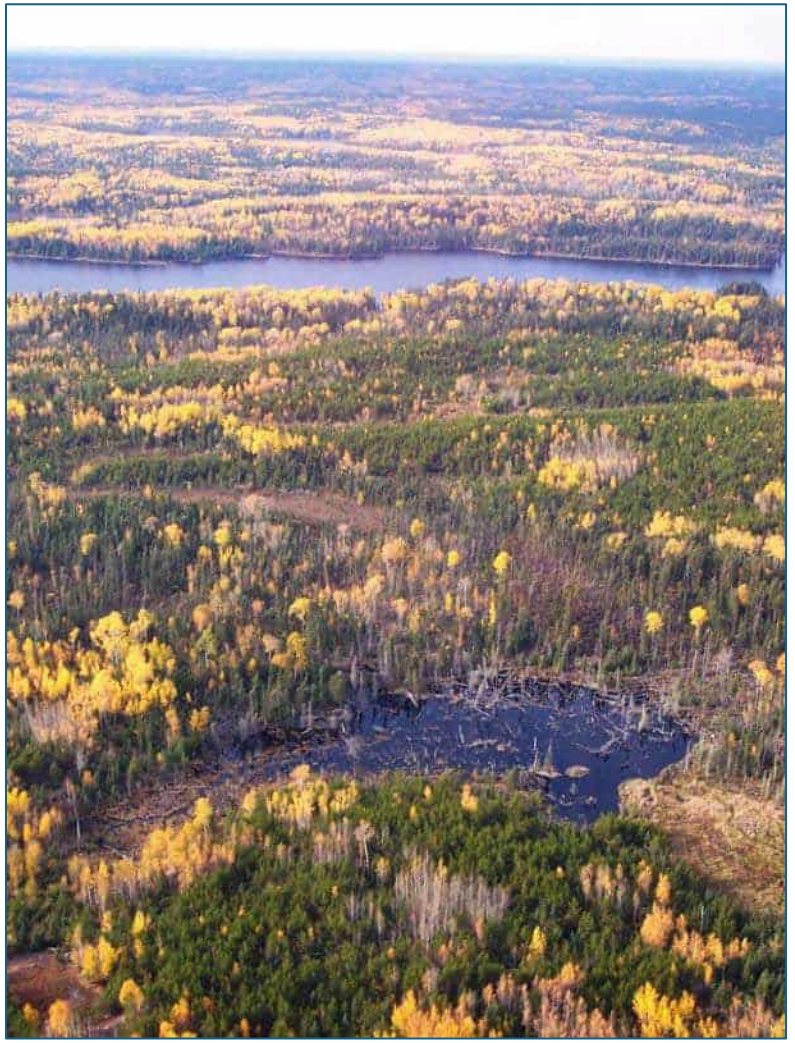


Photo credit: Carol Cooper

EXISTING CONDITIONS

Specific and targeted surveys for vegetation and wildlife were undertaken by Northern Bioscience from 2021 to 2023.

Surveys completed to characterize existing conditions

- Vegetation and wetland communities
- Breeding birds, Owls, Waterfowl, Nightjars (Nocturnal), Nocturnal ARU surveys

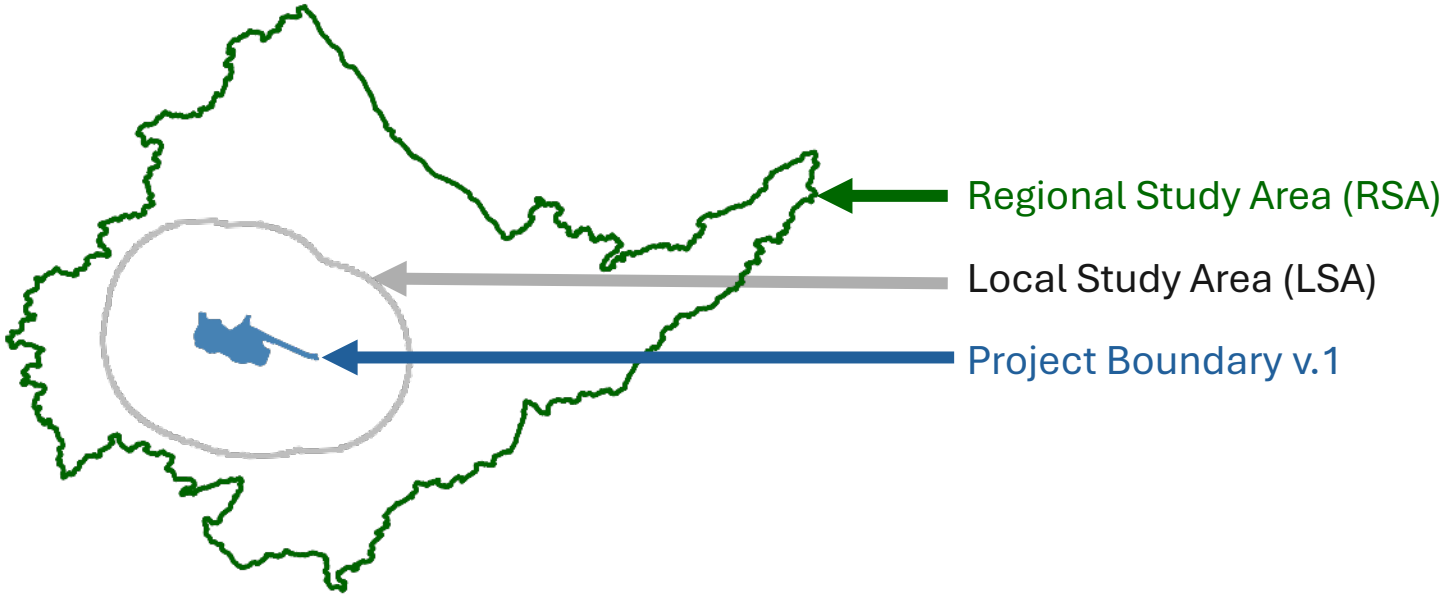


Photo Credit: Northern Bioscience

Habitat Summary

- The LSA area is mostly terrestrial ecosites, with the most common ecosite being B055 (Deciduous, Dry to Fresh, Coarse – Aspen-Birch Hardwood)
- About 20% of the LSA is open water with multiple waterbodies including Unnamed Waterbody 1, Unnamed Waterbody 6 and Dixie Lake
- Wetland ecosites make up approximately 15% of the LSA, with the most common ecosite being B128 (Organic Intermediate Conifer Swamp)
- Uneven age distribution due to forest fires and logging
    - Mature trees make up about 31% of the LSA and 41% of the RSA

11: B055 – Dry to Fresh, Coarse – Aspen-Birch Hardwood,

14: B128 – Organic Intermediate Conifer Swamp, 2021

Photo Credit: Great Bear Resources

SUMMARY OF THE BASELINE BIRD DATA

- Summary of Bird Methods

SUMMARY OF BIRD AND BIRD ARU SURVEYS

Bird surveys included:

Breeding birds:

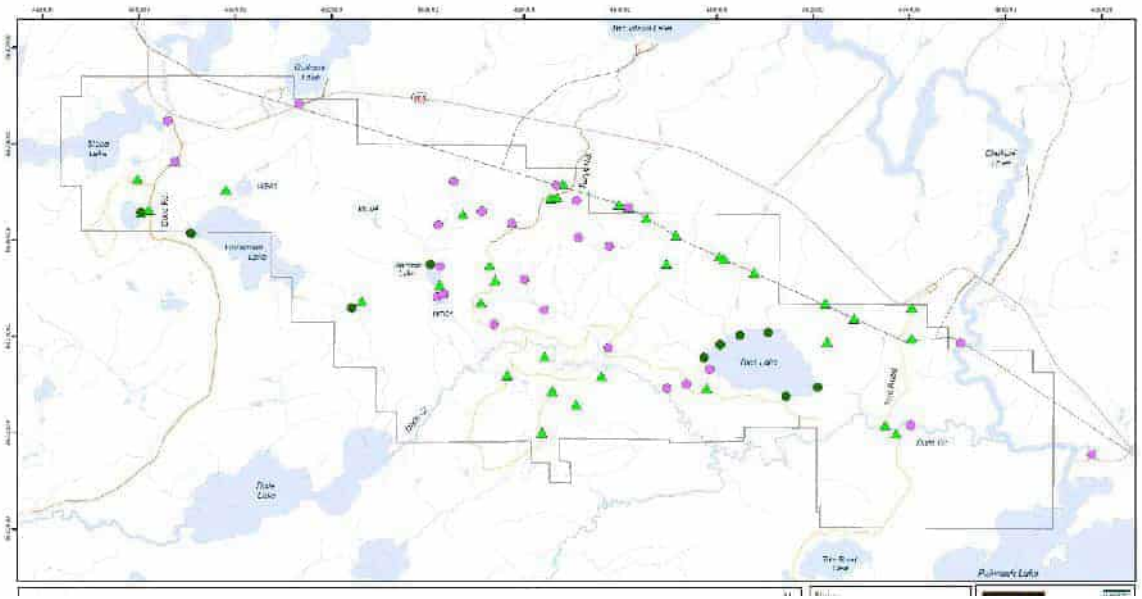
- 1092 morning point counts (608 plots),

Nocturnal birds:

- 57 owl survey stations,
- 237 nocturnal survey stations for nightjars
- 3600+ ARU deployment-nights
  - Nocturnal birds (90 locations)

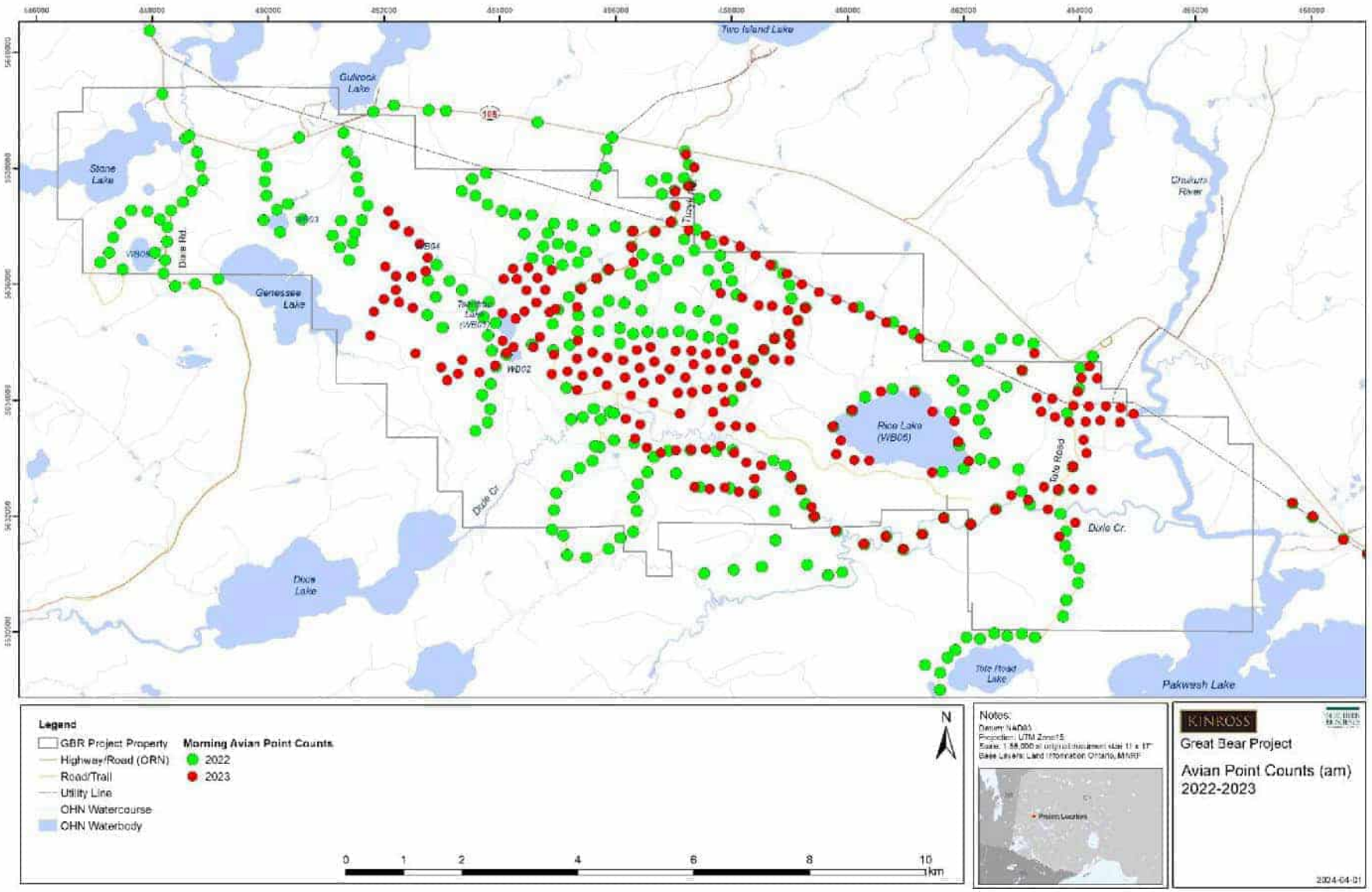
Waterfowl:

- 40+ waterfowl surveys on Unnamed Waterbody 1, Unnamed Waterbody 6 and other waterbodies.
  - Station, Boat, and Aerial
- 26 Marsh bird playback surveys



Above: ARU locations (top), SM Mini Bat ARU deployed to detect crepuscular and nocturnal birds (bottom)

SUMMARY OF BIRD AND BIRD ARU SURVEYS



- Map of morning point count locations in 2022 (green) and 2023 (red)

Photo Credit: Great Bear Resources

SUMMARY OF THE BASELINE BIRD DATA

- Summary of Bird Methods
  - Density Methods

BIRD DENSITY ANALYSIS: METHODS

- Density models accounted for imperfect detection with an offset (Solymos et al., 2013).
- The offset was a function of:
  - Removal model to estimate singing rate as a function of covariates (Day, Time-since-sunrise, weather).
  - Distance model to estimate detection radius as a function of covariates (habitat, observer, weather).
- Generalized linear mixed models (GLMM) to estimate density as a function of Year, Treatment (Inside or outside the project vicinity), covariates (habitat), the offset, and random effects (Location as random intercept).
- Bootstrapping used to estimate confidence.
- Models validated with K-fold cross validation

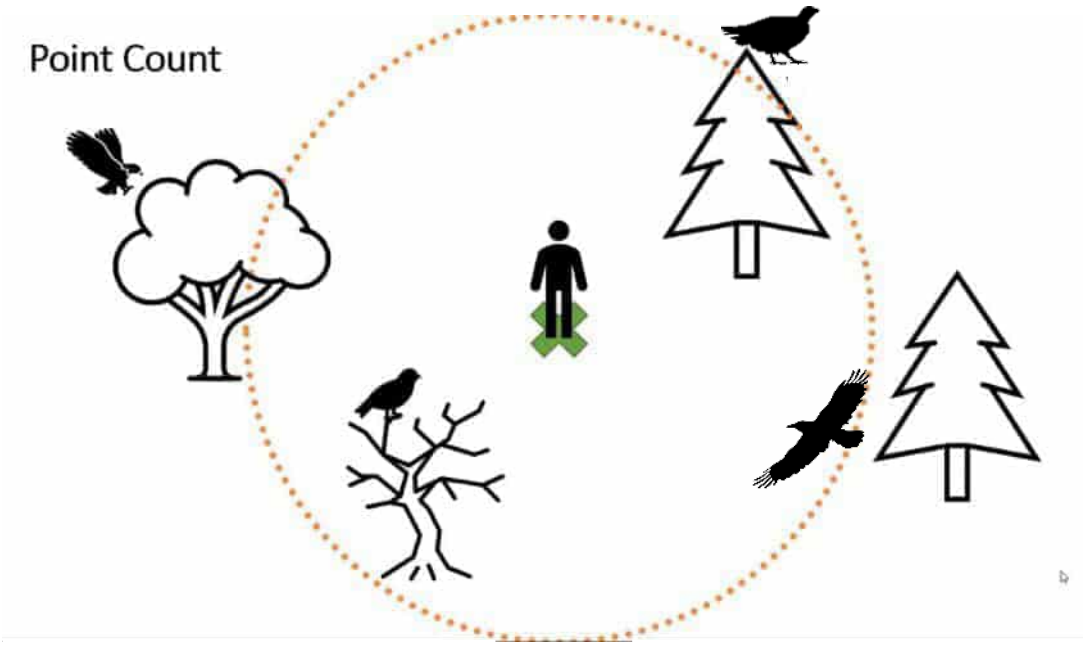


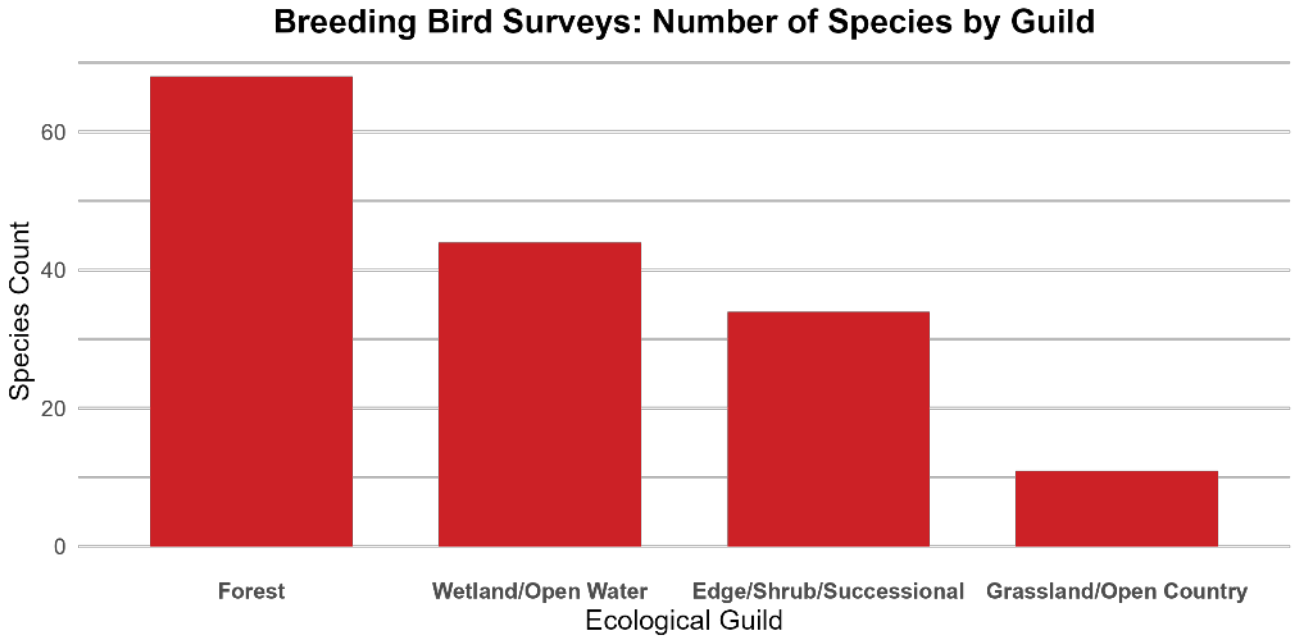
Photo Credit: Great Bear Resources

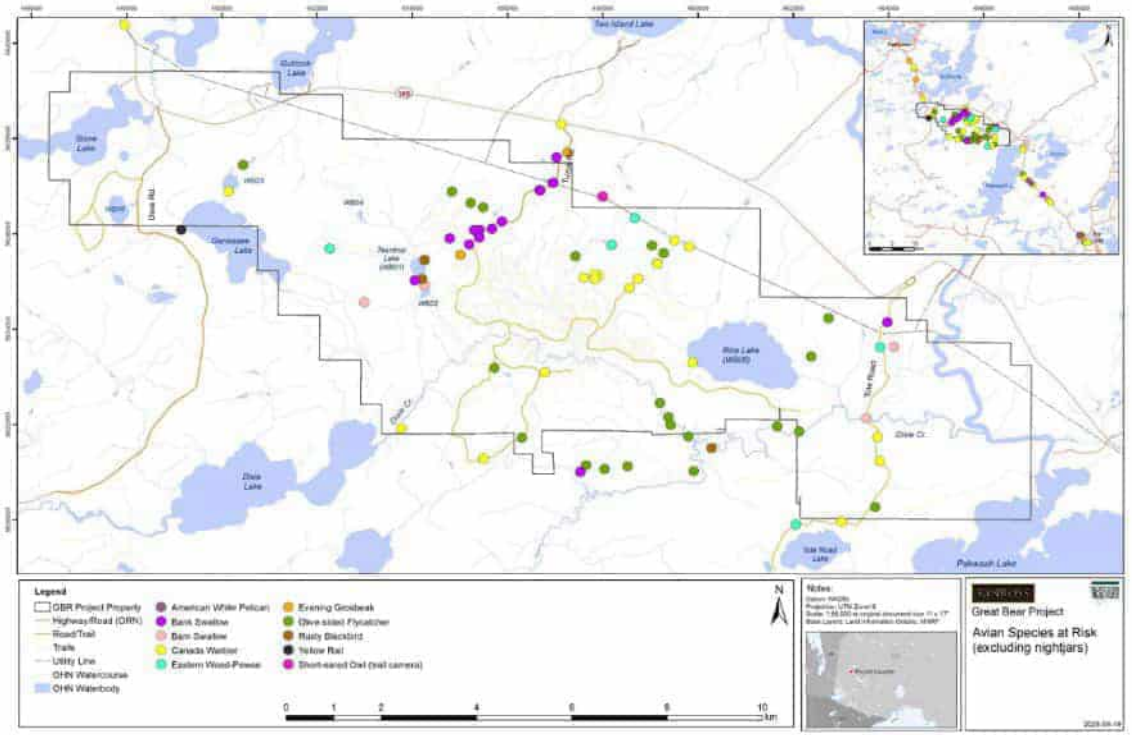
SUMMARY OF THE BASELINE BIRD DATA

- Summary of Bird Results

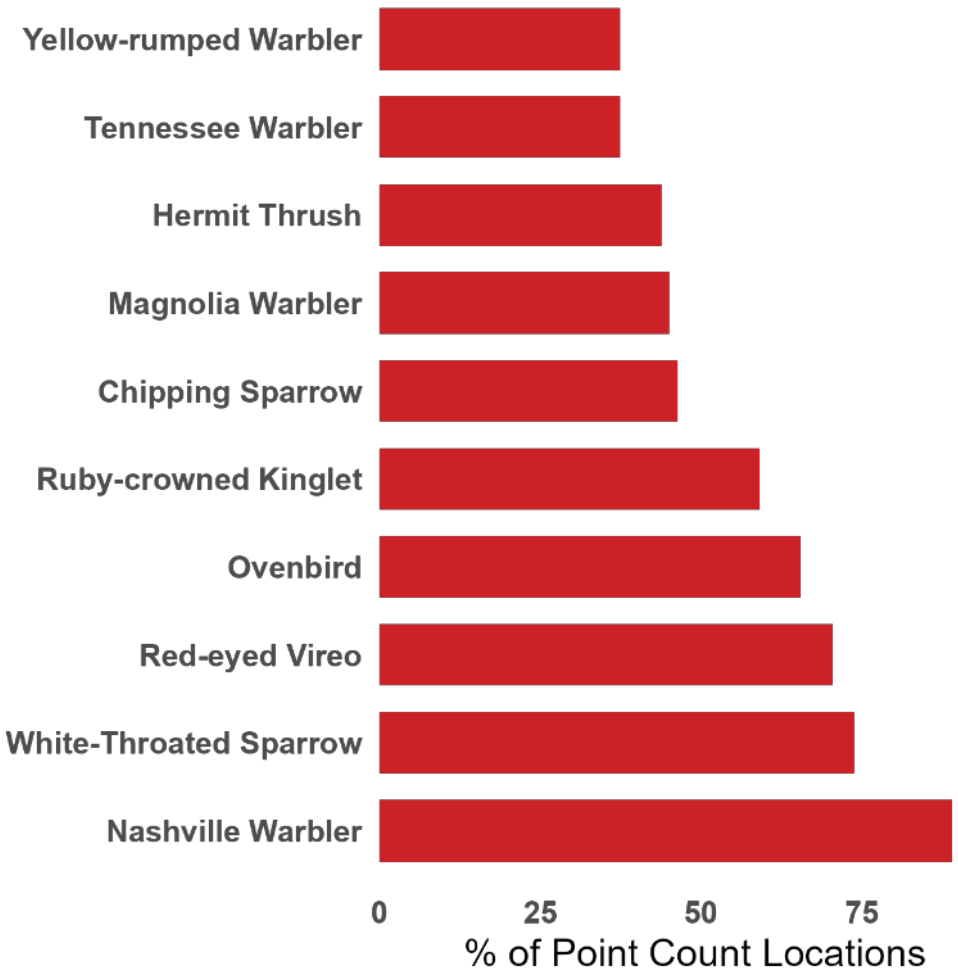
RESULTS SUMMARY

- 153 unique bird species identified across survey types
- Breeding Birds: 131 species, of which Nashville Warbler, White-throated Sparrow, and Red-eyed Vireo were most common
- Nightjar Surveys: Common Nighthawk and Eastern Whip Poor-will
- Marsh Birds: 49 species, including Sora, Yellow Rail and Le Conte's Sparrow
- Waterfowl and Waterbirds: 21 species most common were Canada Goose, Mallard and Common Goldeneye
- Owls: 7 species, including Northern Saw-whet, Boreal, Barred, Great-horned and Great Grey
- Raptors: 10 species, including Bald Eagle, Broad-winged Hawk and American Kestrel





RESULTS SUMMARY



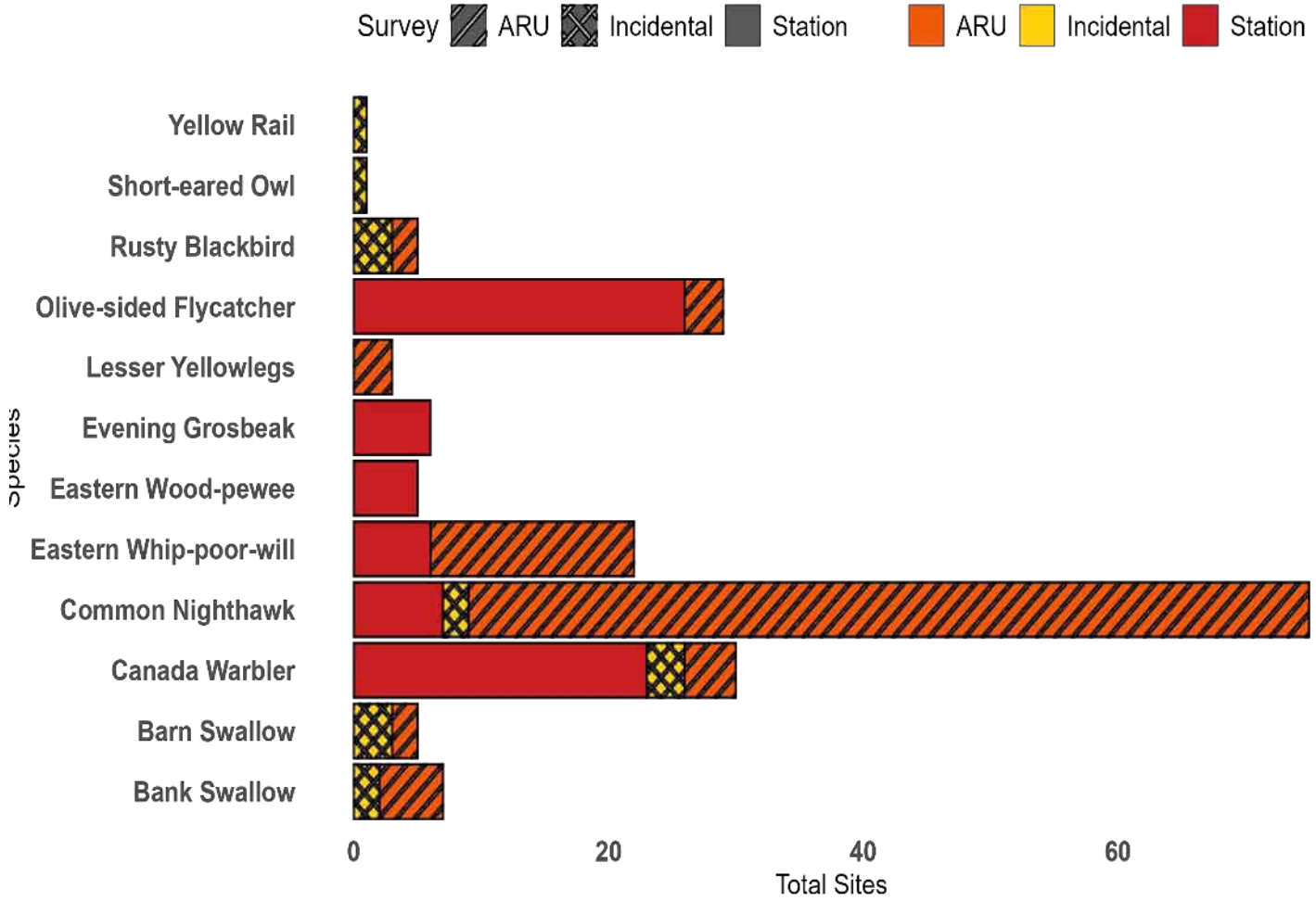


Photo Credit: Great Bear Resources

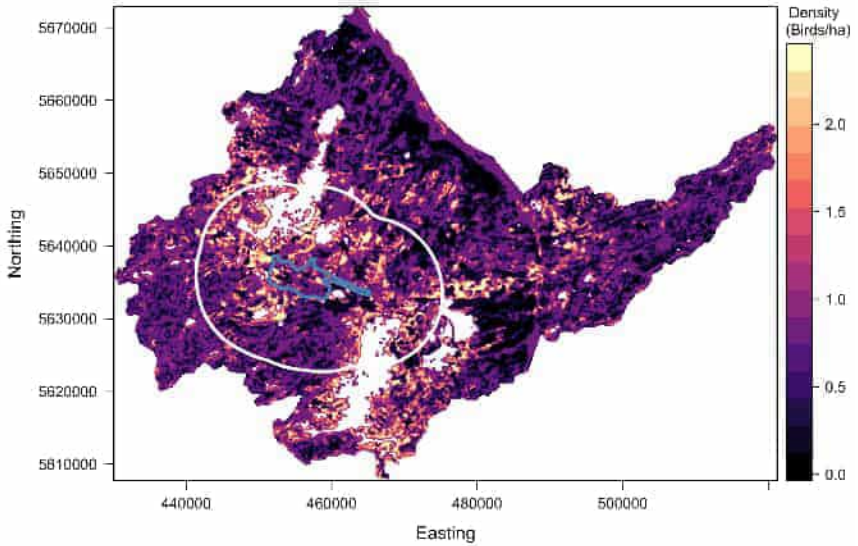
SUMMARY OF THE BASELINE BIRD DATA

- Summary of Bird Results
  - Density Results

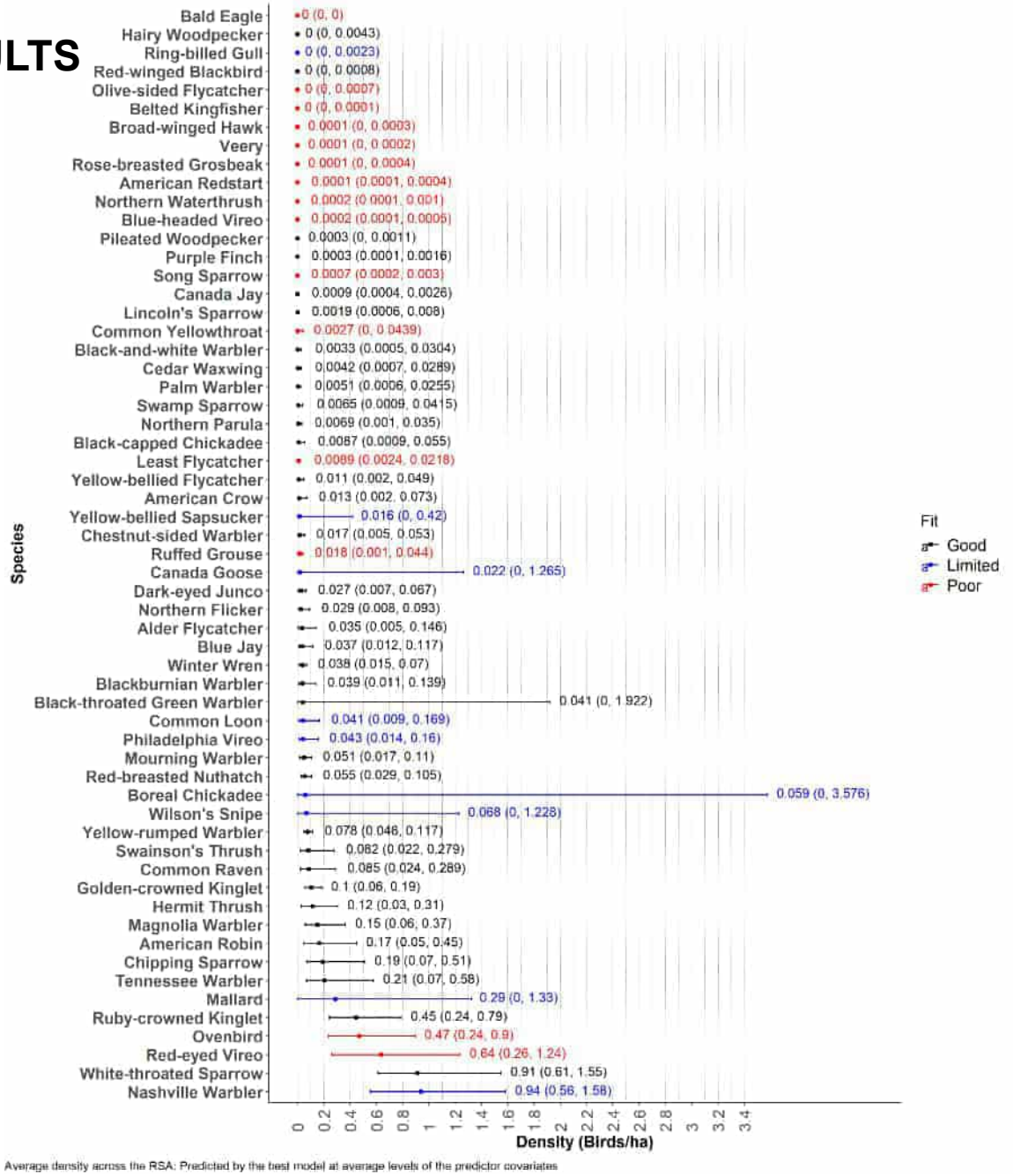
DENSITY RESULTS

Bird Density Analysis: Results

- Density could be modelled for 59 species.
- 37 primarily forest-dwelling species, 10 open habitats species and 12 water or wetland species.
- Model results tended to correspond with expected habitat preferences.
- Olive-sided Flycatcher was the only SAR bird with enough detections



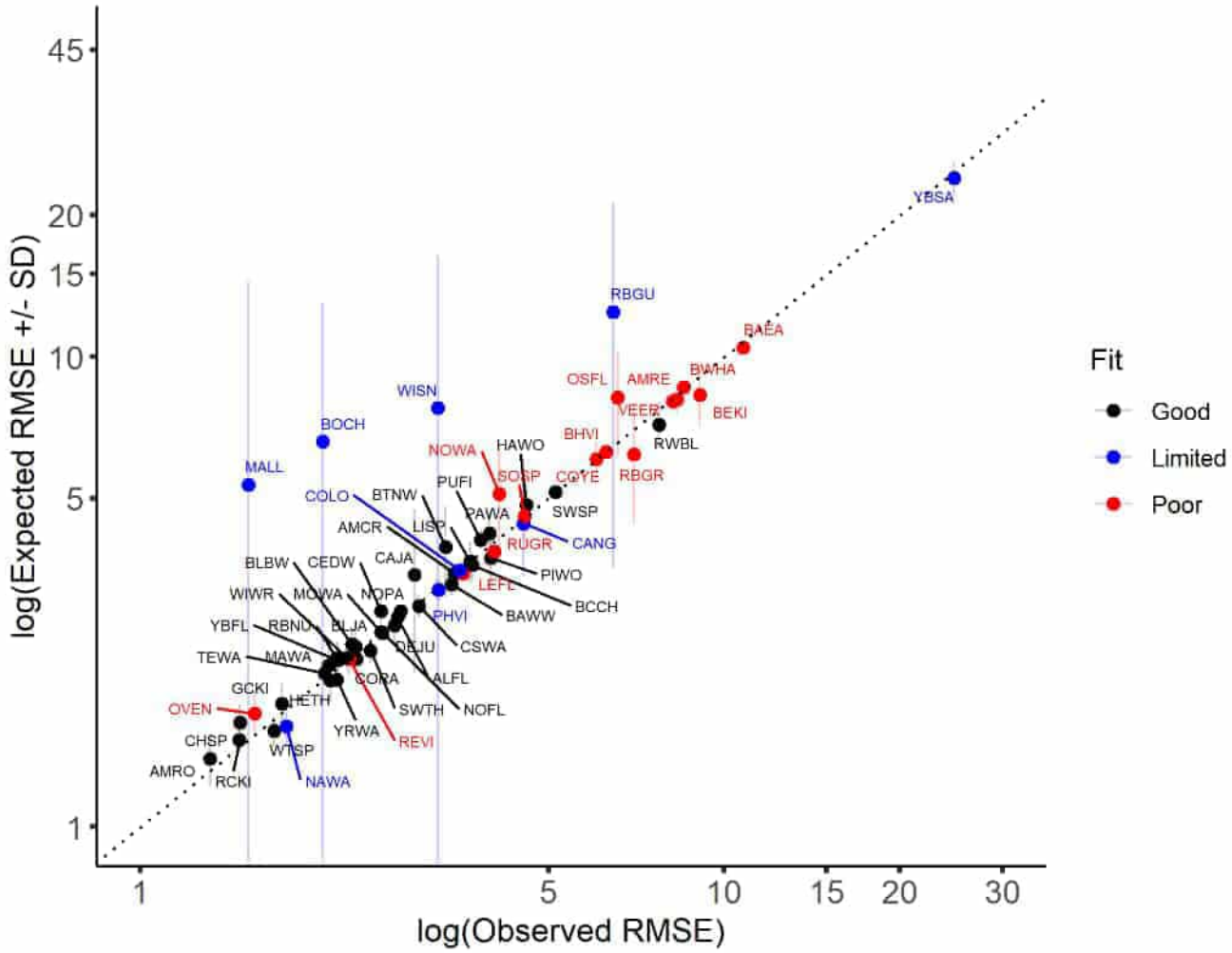
Predicted Density Surface for Ovenbird



DENSITY RESULTS

Bird Density Analysis: Validation

- Most models had good fit
- 9 had a limited model fit, and 15 had poor model fit.
- Low variability in the RMSE and relatively high concordance between the expected RMSE and observed RMSE
    - Good generalizability and stability in their predictive performance

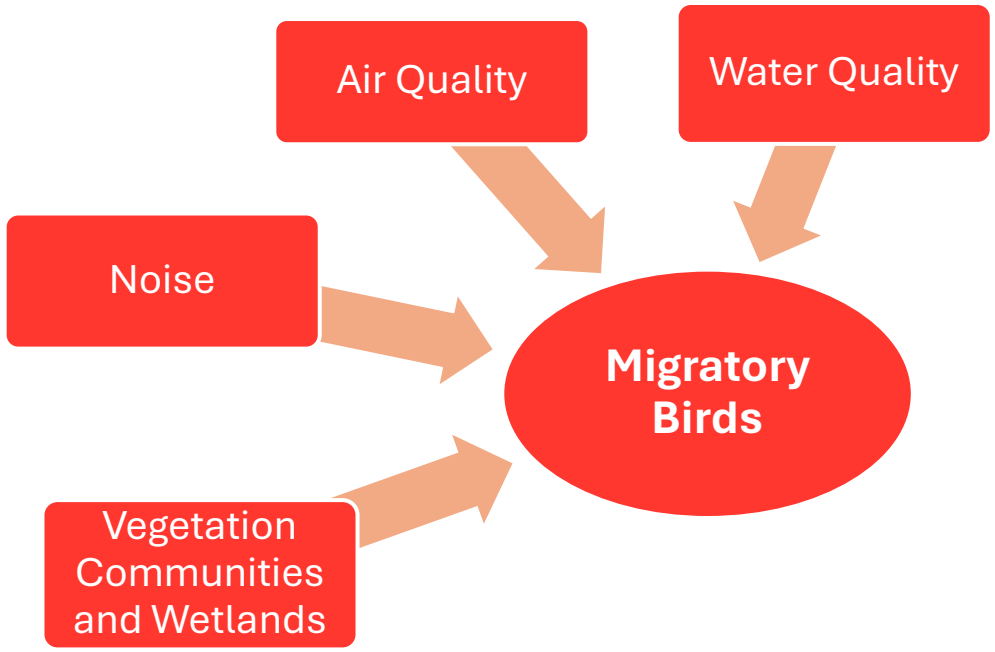


OVERVIEW OF THE ASSESSMENT OF POTENTIAL EFFECTS TO MIGRATORY BIRDS

Photo Credit: Great Bear Resources

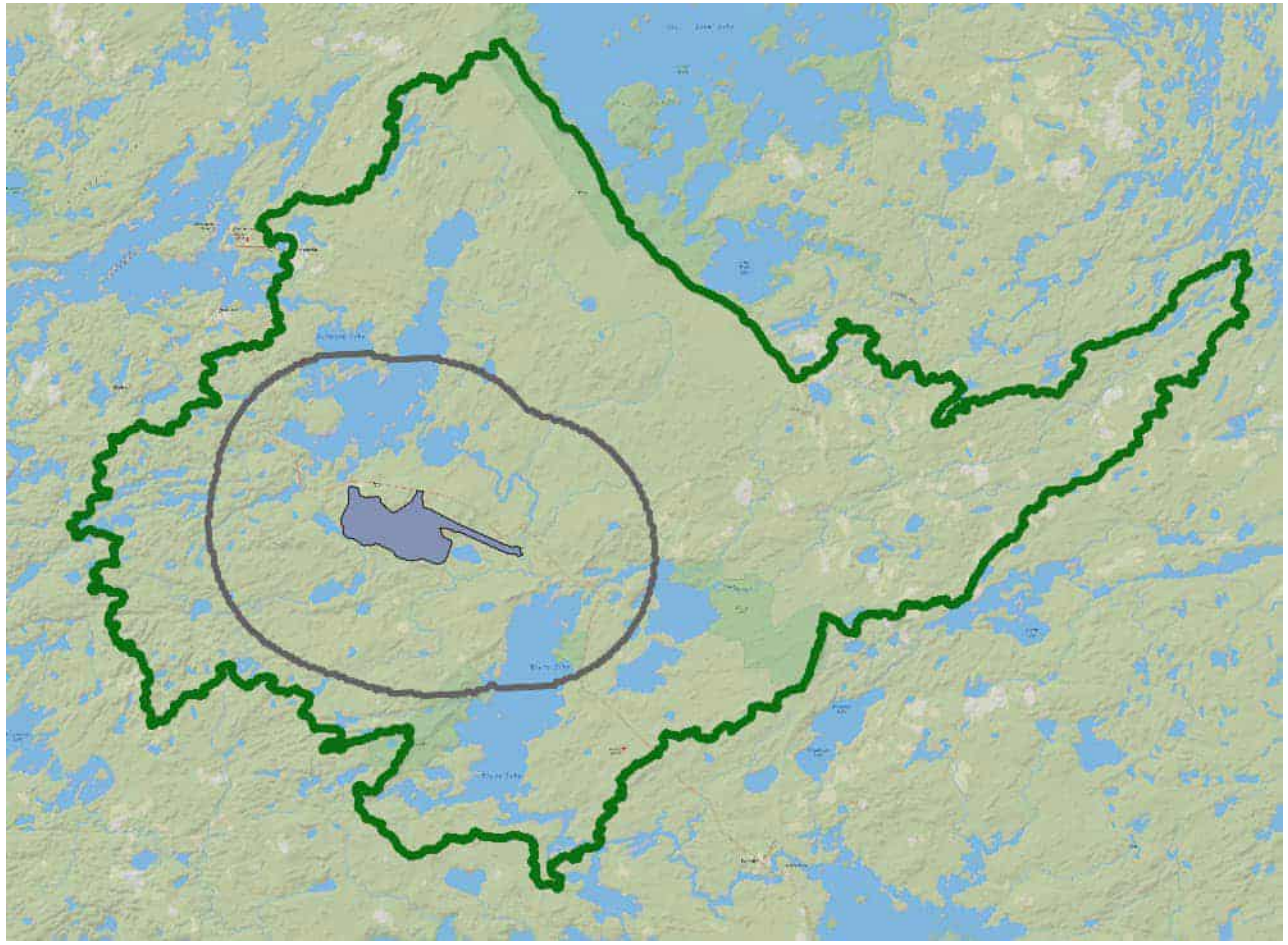
LINKAGES WITH OTHER VALUED COMPONENTS

- **Noise:** Changes in sound may result in sensory disturbances
- **Water Quality:** Changes to water quality could affect drinking water and food sources
- **Air Quality:** Dust deposition may affect birds and their resources
- **Vegetation Communities and Wetlands:** The potential changes in vegetation communities and wetlands, including changes in air quality and groundwater, may result in changes in migratory bird habitat



CURRENT SPATIAL BOUNDARIES

- **Project Area (PA):** Project Footprint (3,349 ha including buffer).
- **Local Study Area:** Outer extent to which potential indirect and direct effects are anticipated (10 km).
- **Regional Study Area:** Outer edge of ecologically relevant study area.
  - Influenced watershed boundaries based on guidance outlined by Environment and Climate Change Canada.
  - Vegetation assemblages and wetlands with distinct environmental conditions.
  - Relevant eco-districts and bird conservation regions.
  - Traditional knowledge (where available).



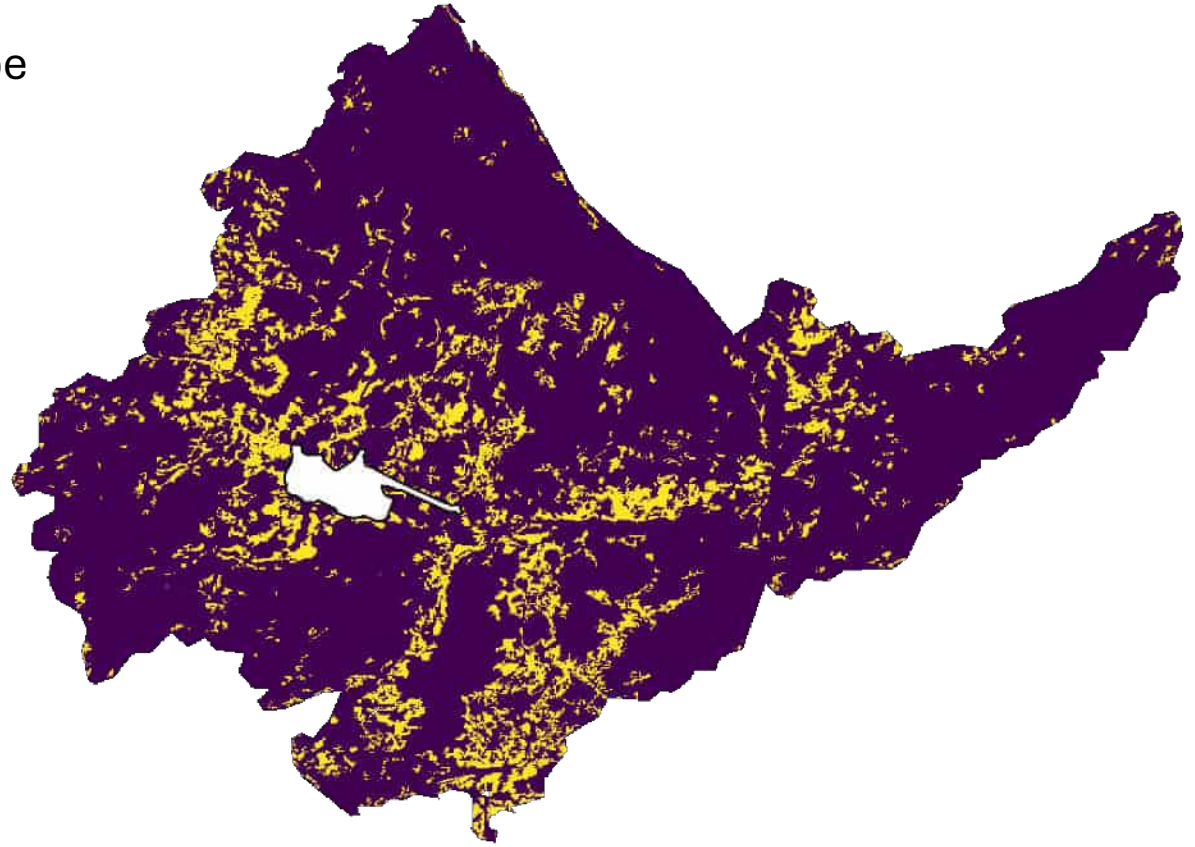
POTENTIAL IMPACTS / MEASURABLE PARAMETERS

Assessment Criteria	Measurable Parameters	Rationale for Selection
Change in the Abundance of Habitat	•Quantification of the direct loss of specific habitat types in the LSA/RSA	•How much habitat is directly or indirectly affected.
Change in the Connectivity and Quality of Habitat	•Quantification of the indirect change of specific habitat types in the LSA/RSA, due to sensory disturbances, dust deposition, light, hydrologic conditions •Qualitative assessment of the change in connectivity	•Assess changes in ecological functionality, fragmentation, and degradation
Change in Density	•Quantification of impact to population based on density analysis and project footprint	•Population may integrate new individuals •Potential change in social dynamics due to increased competition
Change in the Risk of Mortality	•Qualitative assessment of the risk of mortality of the migratory birds	•Likelihood of direct mortality (e.g., vegetation removal, vehicle collisions, equipment entrapment) or indirect mortality from stressors.
Species at Risk	•Targeted impacts on legally protected species	•Bird SAR will be in this section for reviewer ease/clarity.

Each parameter is selected based on its direct relevance to migratory bird conservation and regulatory compliance.

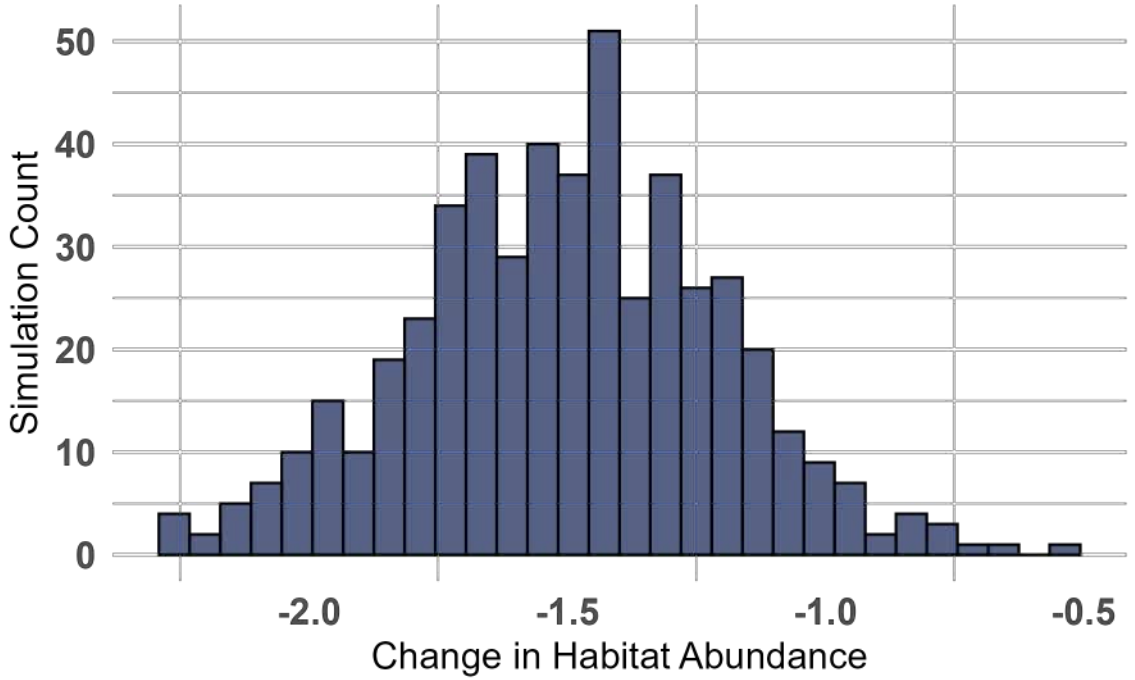
ANALYTICAL METHODS

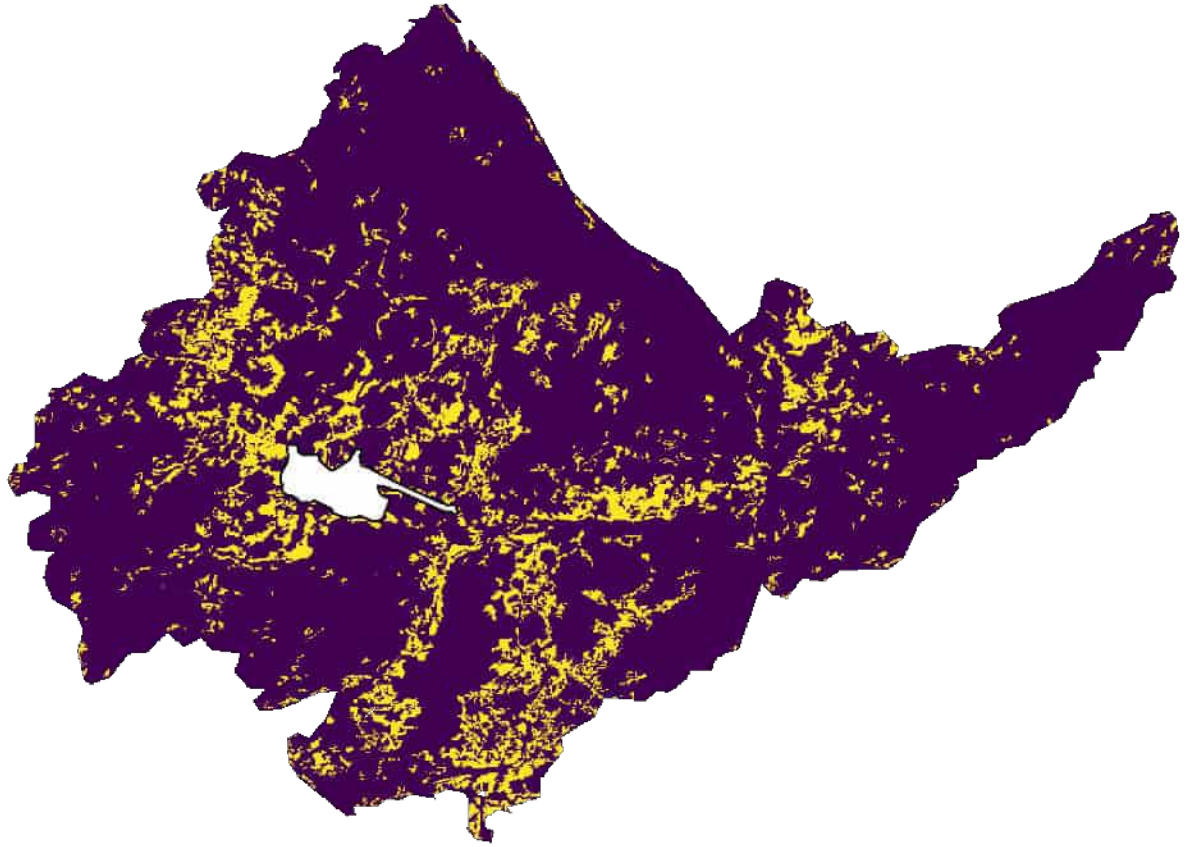
- Using habitat suitability mapping and density surfaces:
  - Overlay PA on habitat and assume that all habitat will be removed.
  - Overlay modelled indirect effects, including:
    - Changes in air quality parameters (e.g., dust)
    - Changes in the acoustic environment during operation (above 40 dBA).
    - Change in groundwater levels from water management.
  - Assess fragmentation with patch size metrics (Jaeger, 2000)
- Risk of mortality to species is undertaken in a qualitative manner
  - Other mine operations, literature, and Project-specific.



FLAGGING CHANGE THROUGH SIMULATIONS

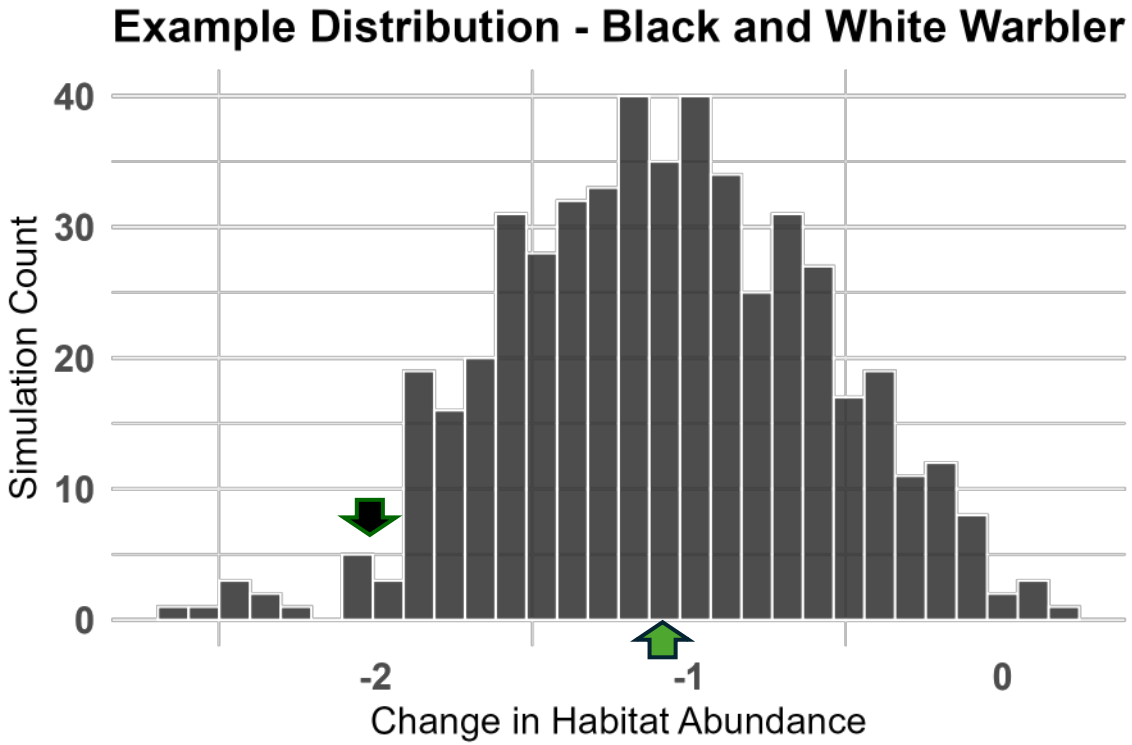
Bird	Percent Habitat Change
Black and White Warbler	-1.91
Yellow-rumped Warbler	-1.33

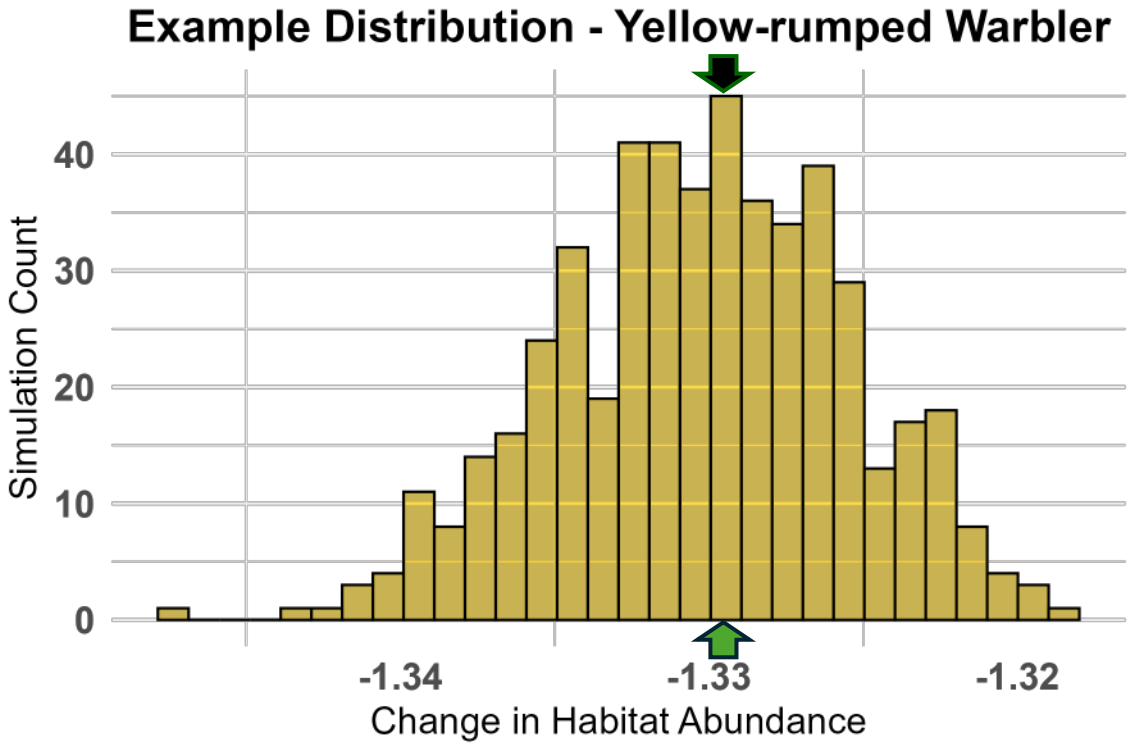




FLAGGING CHANGE THROUGH SIMULATIONS

Bird	Percent Habitat Change	Simulated Habitat Change	P-Value
Black and White Warbler	-1.91	-1.10	**0.03**
Yellow-rumped Warbler	-1.33	-1.33	1





Deciduous Forests: PA: approx. 20% RSA: approx. 13%

IDENTIFICATION OF POTENTIAL PATHWAYS OF EFFECTS TO MIGRATORY BIRDS

Photo Credit: Great Bear Resources

OVERVIEW OF THE ASSESSMENT OF POTENTIAL EFFECTS TO MIGRATORY BIRDS

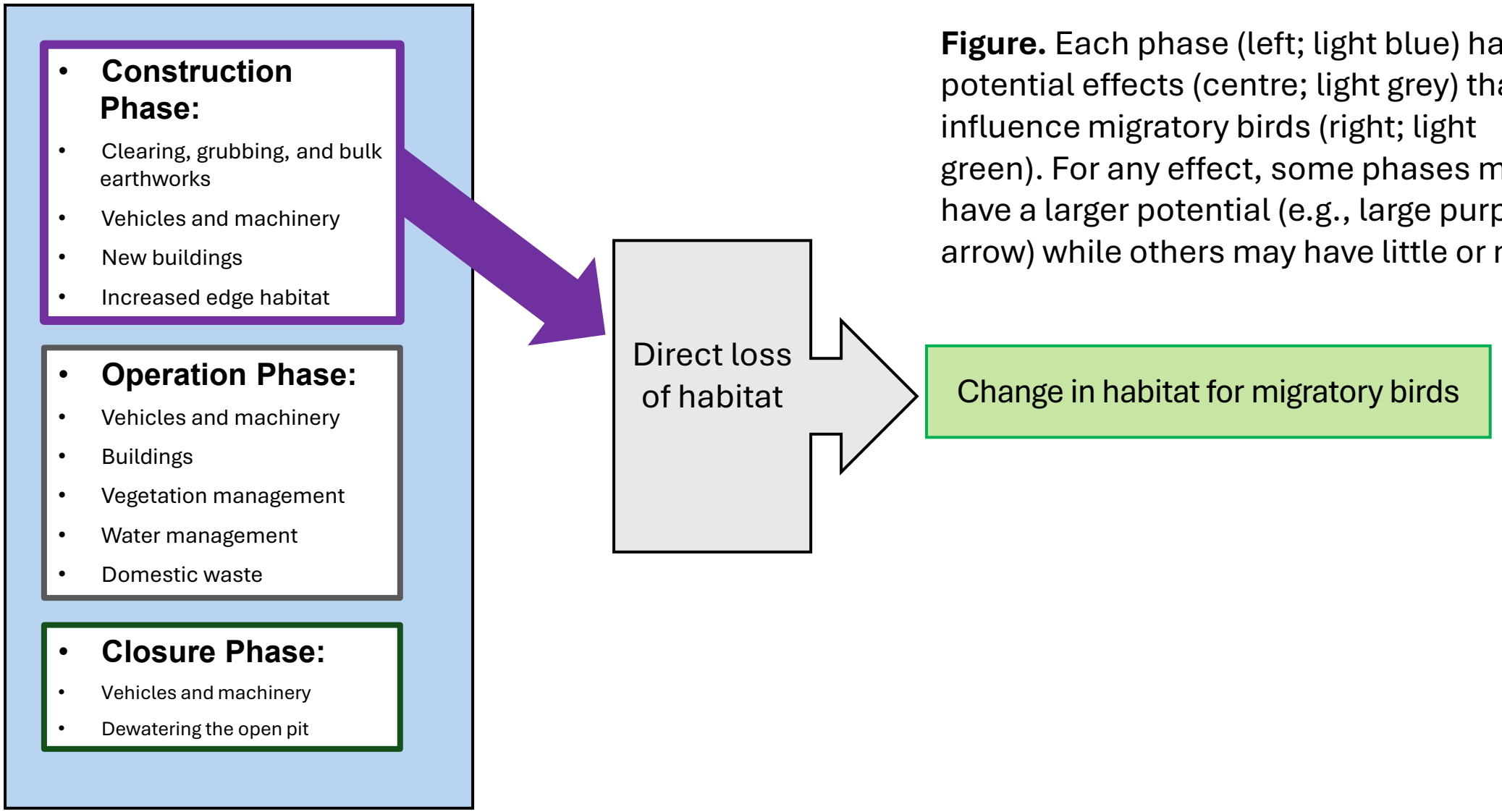


Figure. Each phase (left; light blue) has potential effects (centre; light grey) that influence migratory birds (right; light green). For any effect, some phases may have a larger potential (e.g., large purple arrow) while others may have little or none

OVERVIEW OF THE ASSESSMENT OF POTENTIAL EFFECTS TO MIGRATORY BIRDS

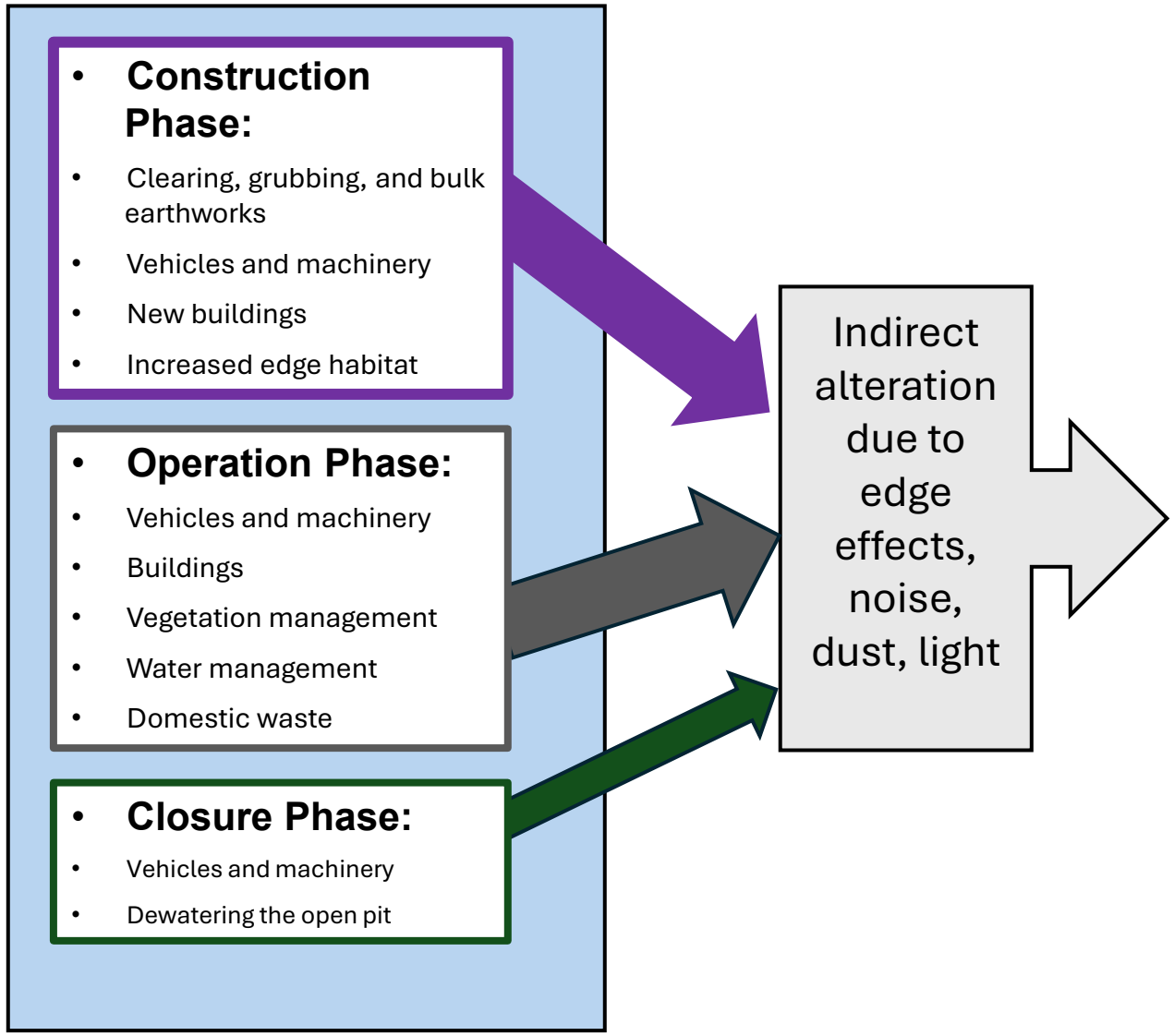


Figure. Each phase (left; light blue) has potential effects (centre; light grey) that influence migratory birds (right; light green). For any effect, some phases may have a larger potential while others may have little or none (represented by arrow size)

OVERVIEW OF THE ASSESSMENT OF POTENTIAL EFFECTS TO MIGRATORY BIRDS

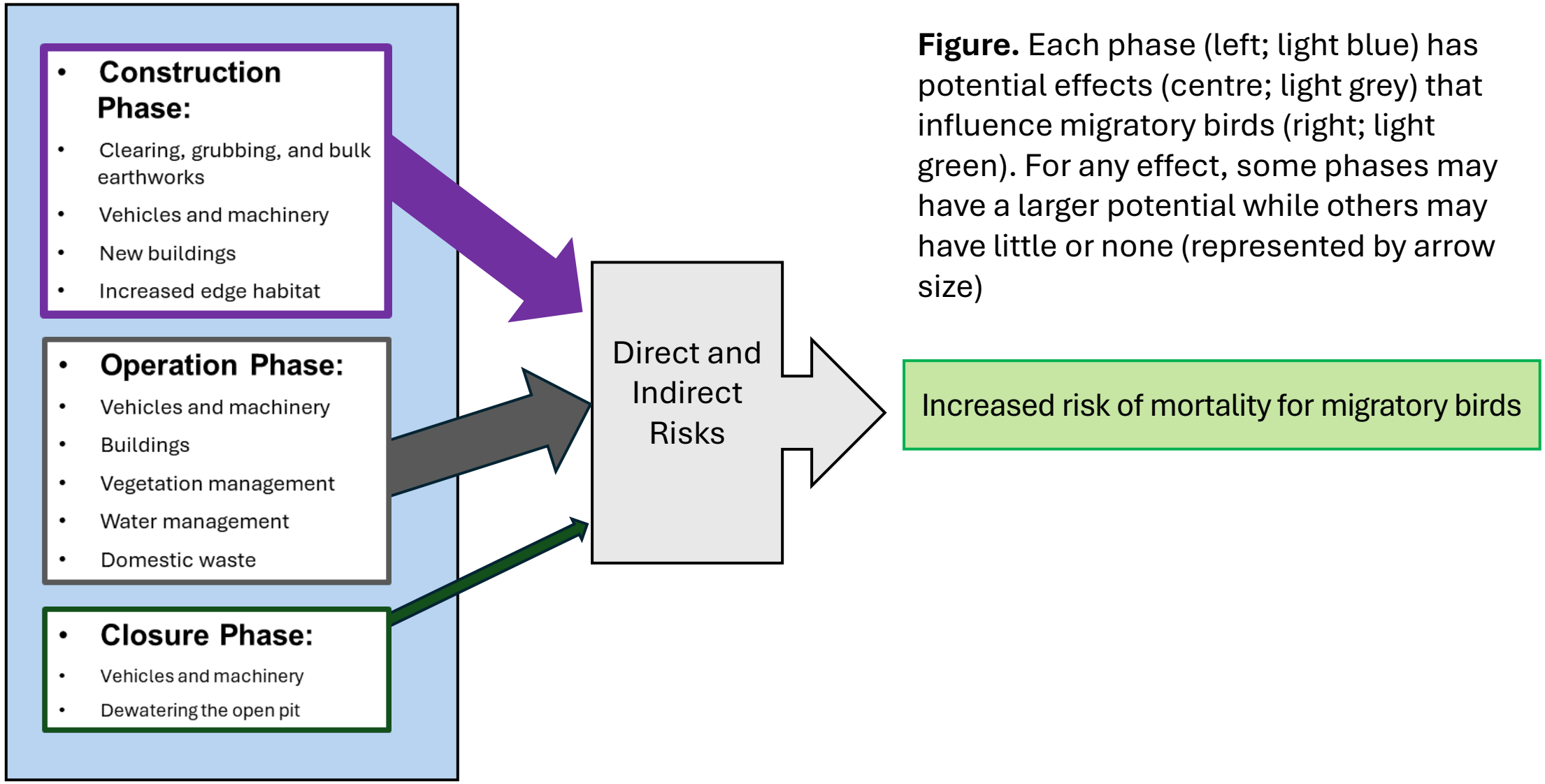


Figure. Each phase (left; light blue) has potential effects (centre; light grey) that influence migratory birds (right; light green). For any effect, some phases may have a larger potential while others may have little or none (represented by arrow size)

MITIGATION MEASURES FOR MIGRATORY BIRDS

Photo Credit: Great Bear Resources

MITIGATION MEASURES FOR MIGRATORY BIRDS

- Develop a compact mine site to limit the extent of disturbance.
- Follow appropriate timing windows for vegetation removals (Mid-April to Late August).
- Comply with the requirements of the MBCA and Migratory Birds Regulations, if migratory birds are encountered during Project activities.
- Implementation of mitigation measures for potential effects on vegetation communities and wetlands, including:
  - minimize the clearing of vegetation
  - minimize the removal of woody vegetation
  - undertake progressive and final rehabilitation in accordance with the filed Closure Plan

- Implementation of mitigation measures for potential effects on air quality, noise, and groundwater, and specific measures for lighting (as practical):
  - maintain light sources below natural barriers such as tree lines or artificial barriers such as berms
  - minimize light spill and glare using shielding on stationary light sources and direct lighting downwards where practicable
  - dust emissions from roads and mineral stockpiles will be controlled through the application of water spray and supplemented by dust suppressants
  - vehicles and equipment will be operated in such a way that impulsive noise is minimized.

DETERMINATION OF SIGNIFICANCE

ATTRIBUTE	DESCRIPTION	CATEGORY
Magnitude	A qualitative or quantitative measure to describe the size or degree of the residual effects relative to baseline conditions	•Level I: Project-related changes have a low potential to adversely affect birds and / or the habitat required for birds to carry out the life processes necessary to survive and reproduce. Habitat functions are likely maintained elsewhere in the RSA. •Level II: Project-related changes have a moderate potential to adversely affect birds and / or the habitat required for birds to carry out the life processes necessary to survive and reproduce (e.g., some temporary changes in behaviour but not expected to have long-term impacts on the population or change the status of local populations or the availability of unique habitats). Bird habitat functions are likely maintained elsewhere in the RSA. Project-related changes in habitat are between 5% and 10% of the RSA. •Level III: Project-related changes have a high potential to adversely affect birds and / or the habitat required for birds to carry out the life processes necessary to survive and reproduce. Habitat functions are not maintained elsewhere in the RSA. Project-related changes in habitat are greater than 10% of the RSA.
Geographic Extent	The spatial extent over which the residual effect will take place	•Level I: Effect is restricted to the local study area (LSA) •Level II: Effect extends beyond the LSA but within the regional study area (RSA) •Level III: Effect extends beyond the RSA

DETERMINATION OF SIGNIFICANCE

ATTRIBUTE	DESCRIPTION	CATEGORY
Duration	The time period over which the residual effect will or is expected to occur	•Level I: Effect occurs over the short term: less than or equal to 3 years •Level II: Effect occurs over the medium term: more than three years but less than 31 years •Level III: Effect occurs over the long term: greater than 31 years.
Frequency	The rate of occurrence of the residual effect	•Level I: Effect occurs once, infrequently (or not at all) •Level II: Effect occurs intermittently or regularly •Level III: Effect occurs frequently or continuously
Reversibility	The extent to which the residual effect can be reversed	•Level I: Effect is fully reversible during the Project phases •Level II: Effect is partially reversible during the Project phases •Level III: Effect is not reversible during the Project phases.
Timing	A measure of whether the residual effect occurs during a sensitive period of the year	•Level I: Effects do not occur during a sensitive period or related effects are fully mitigated •Level II: Effects occur during a sensitive period and are partially mitigated •Level III: Effects occur during a sensitive period and are not mitigated

SUMMARY OF THE APPROACH TO ADDRESSING AREAS OF UNCERTAINTY

Photo Credit: Great Bear Resources

SUMMARY OF THE APPROACH TO ADDRESSING AREAS OF UNCERTAINTY

- A conservative approach will be used including:
  - A buffer on the Project footprint allows for flexibility for design optimizations during permitting.
    - Actual footprint is smaller
  - The amount of habitat removed and fragmented will be overestimated.
    - Some vegetation communities will be maintained
  - Assumes rehabilitation will be completed during the active closure phase.
    - Progressive rehabilitation will occur during construction and operation
  - A 40 dBA continuous noise threshold will be used as a disturbance benchmark.
    - dBA disturbance will not be continuous

Questions

Photo Credit: Randy Streufert

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [9]	Hybrid [ ]
Location:	Virtual		
Time:	10-10:30 AM		
Date:	September 12th, 2025		
Executive Summary:	A virtual meeting held on September 12th, 2025, involving Kinross Gold Corporation's Great Bear Gold Project team and the Impact Assessment Agency of Canada (IAAC) to discuss permitting and approval processes.		
Key Actions:	- GBR to provide update and more context to permitting and approvals timelines before Friday's meeting if possible. - GBR to follow up directly with TC and keep Maija copied - GBR will follow up with a more direct request to ANA for a meeting. - GBR to reach out to Western University. - External Technical Review Panel – GBR will review names that have been provided and respond in writing.		

2. **Attendance**

IAAC

Maija Gailis – IAAC (permitting coordination lead)
Ian Martin – IAAC
Kiera Smith – IAAC
Valerie Williams – IAAC

GBR

Luke Crosby – GBR
Connor Devereau – GBR
Ashley Moncrief – GBR
Fiona Christiansen – GBR (SLR)

WSP

Sheila Daniel – WSP

Permitting

- IAAC noted GBR timelines are ambitious. Looking for clarification on when permits are anticipated to be submitted in Q4 2025.

- Typical long-lead permits take 2 yrs, GBR is carrying 1.5 years (e.g., Fisheries act and MMER are long lead).
- IAAC noted that it may be possible to expedite, but info proponent provides will be critical, relationships with First Nations will be key, and comprehensive applications will be important.
- IA decision and construction starting straight after also likely requires some buffer – they would like more understanding of the construction phasing/sequencing.
- IAAC noting that a buffer is often required between IA decision and construction start. Some IA conditions may also need to be addressed during this time prior to issuing permits.
- GBR to provide update and more context to permitting and approvals timelines before Friday's meeting if possible.
- WSP asked for clarification on when TC will be making a decision with regard to navigable waters – information has been supplied to TC but no response received.
- Maija will coordinate with TC so we can get a response on Friday
- GBR confirmed they will follow up directly with TC and keep Maija copied.

ANA

- IAAC asked what has been shared so far, specifically re methylmercury modelling and key issues technical discussions.
- GBR confirmed everything has been shared this week (update has been shared with Dietrich). All key issues briefings and materials shared and waiting for feedback.
- GBR invited feedback from ANA and were open to discussions (no meetings have been set up to date). IAAC asked if there is there an alternative approach to including FN in the key issues briefings.
- GBR confirmed there is a dialogue with WFN/LSFN/MNO there is currently no dialogue with ANA as they will not engage.
- GBR will follow up with a more direct request to ANA for meeting.
- IAAC noted the importance of a strong ROC with ANA.

Methylmercury

- IAAC asked if any updates with regard to next discussion with regulators. Would like GBR to be able to directly speak to comments that have been shared.
- GBR plan was to hold specific follow up with each federal agency (NRCan, ECCC). GBR is reviewing comments and will provide responses.
- IAAC noted that a coordinated meeting would be preferred. IAAC also noted that it would be good if MECP would be in attendance (GBR are waiting to receive MECP comments).
- GBR will provide a timeline for when responses can be expected. GBR are aiming to finalize deliverables in December and have requested comments ASAP.
- GBR also acknowledged IAAC's response on the Riverbank Study (and request for IAAC to request disclosure).
- GBR re-stated the importance of all parties to scrutinize this work (the response from IAAC suggested this study was not relevant). IAAC suggested to look at what the university has published – data request should be publicly available through the university.
- GBR agreed and will reach out to Western University.

Phased IS Submission – First submission to be sent the week of Sep 26, or earlier. GBR is looking for clarification on delivery. IAAC clarified use of the Portal is fine.

External Technical Review Panel – GBR will review names that have been provided. GBR noted they have concerns with Elsie Sunderland. GBR to respond in writing.

Overview of Permitting Coordination

SEPTEMBER 2025

Impact Assessment Agency of Canada
Agence d'évaluation d'impact du Canada

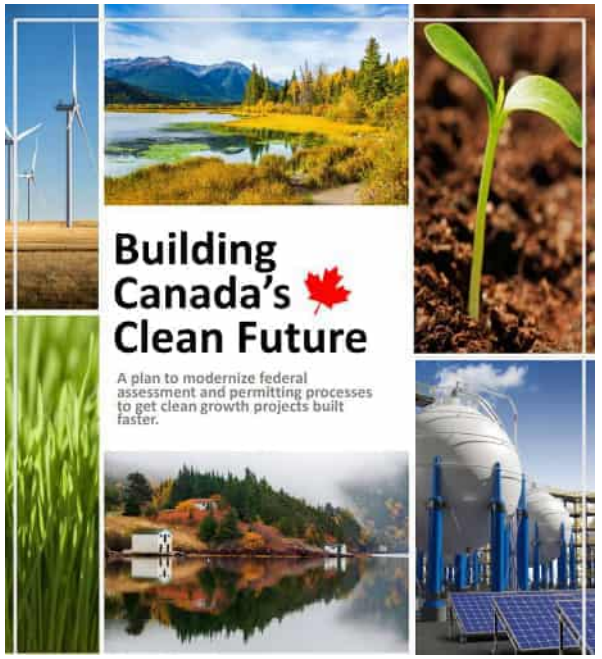
Canada

EFFICIENT REGULATORY SYSTEM

The Government of Canada is taking concrete steps to **find efficiency in its regulatory system** to get projects built faster, without compromising environmental protections nor Indigenous People's rights.

Canada's commitments are outlined in:

- **Ministerial Working Group** - Fall 2023
- **Budget 2024** - April 2024
- **Action Plan** - June 2024
- **Cabinet Directive** - July 2024



ACCELERATING FEDERAL DECISIONS

The *Cabinet Directive on Regulatory and Permitting Efficiency for Clean Growth Projects* describes a set of actions to increase **clarity, predictability** and **transparency** of regulatory processes.

Accelerating federal decisions for project construction

- Canada set a target of **two years** to complete federal permits required to construct the project for projects that started an IA before July 2024.
- Two-year "clock" starts once first *comprehensive* permit application is submitted.

Driving permitting coordination to meet target

IAAC and federal regulators will work with proponents and other participants to develop an agreed upon **Detailed Permitting Plan** including key milestones and timelines on which everyone agrees.

PERMITTING COORDINATION OFFERS:

A point of contact within the IAAC, **centralized support** from the Clean Growth Office

Clarity and predictability on requirements, timelines and process through a **detailed permitting plan**; agreed to by proponent, regulators and IAAC.

Transparency through public reporting on the progress on a **permitting dashboards** within IAAC's public Registry

DETAILED PERMITTING PLAN

An **agreement** between the proponent, federal regulators and IAAC that outline the **permits required for the project** and **the timelines** to meet target.

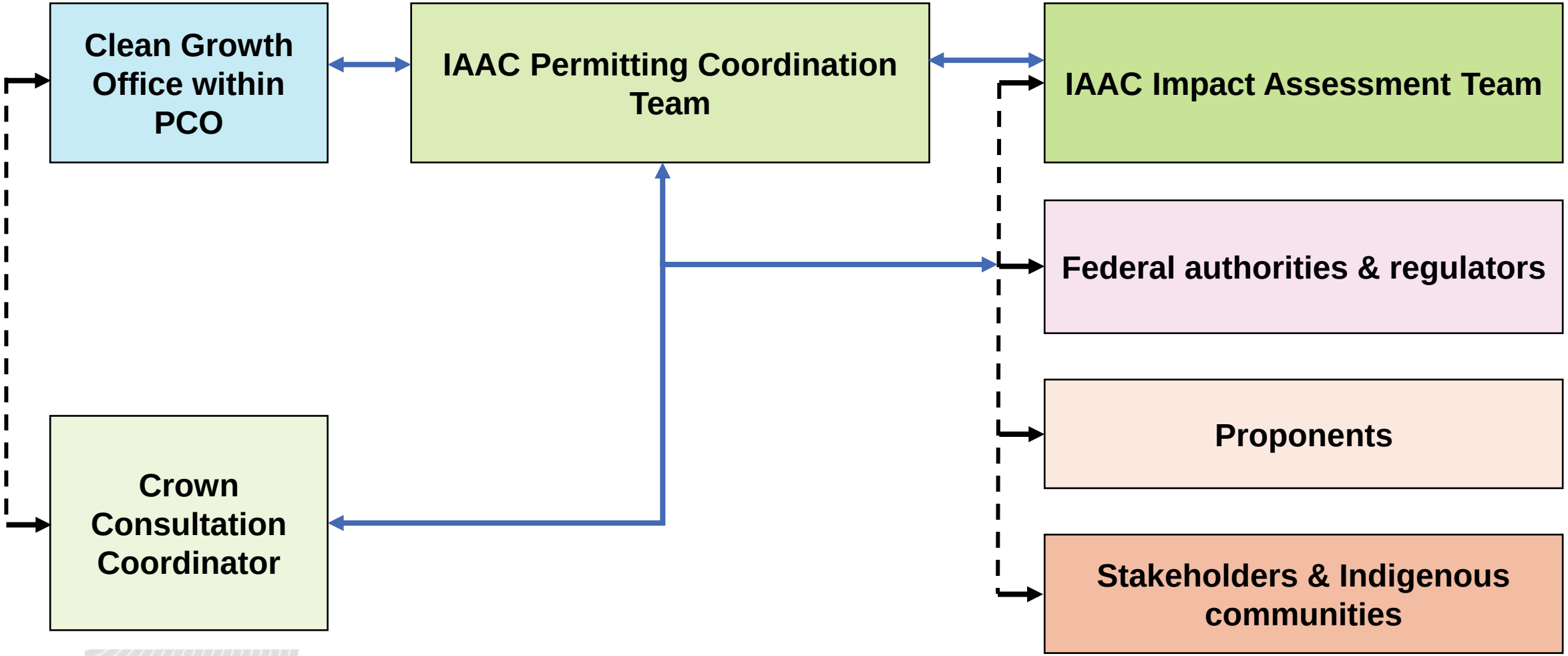
The goal is to **increase clarity, predictability and accountability**.

IAAC will work with federal regulators to:

- Identify and confirm the federal permits required for project construction.
- Provide clear guidance and tailored information about each permit.
- Determine key milestones and timelines to meet project plan and relevant targets set out under the Cabinet Directive.
- Update this Plan as required so that all parties are clear on expectations and the anticipated schedule.

Published on the permitting dashboards to increase transparency and accountability

HOW WE WILL WORK TOGETHER



CROWN CONSULTATION COORDINATOR

IAAC Indigenous Relations Sector will serve as the Crown Consultation Coordinator (CCC) for projects designated under the *Impact Assessment Act* and as the interim CCC for not designated projects accepted into permitting coordination. The goal is to:

- coordinate efficient and meaningful Crown Consultation
- reduce duplication and consultation fatigue for Indigenous groups

Crown Consultation Coordinator will facilitate collaboration among federal authorities for Indigenous consultations related to permitting. When appropriate, the Crown Consultation Coordinator will also include IAAC Impact Assessment Project Team in discussions with Federal Authorities.

IAAC Impact Assessment Project Team will be the lead on Indigenous consultations during the impact assessment process.

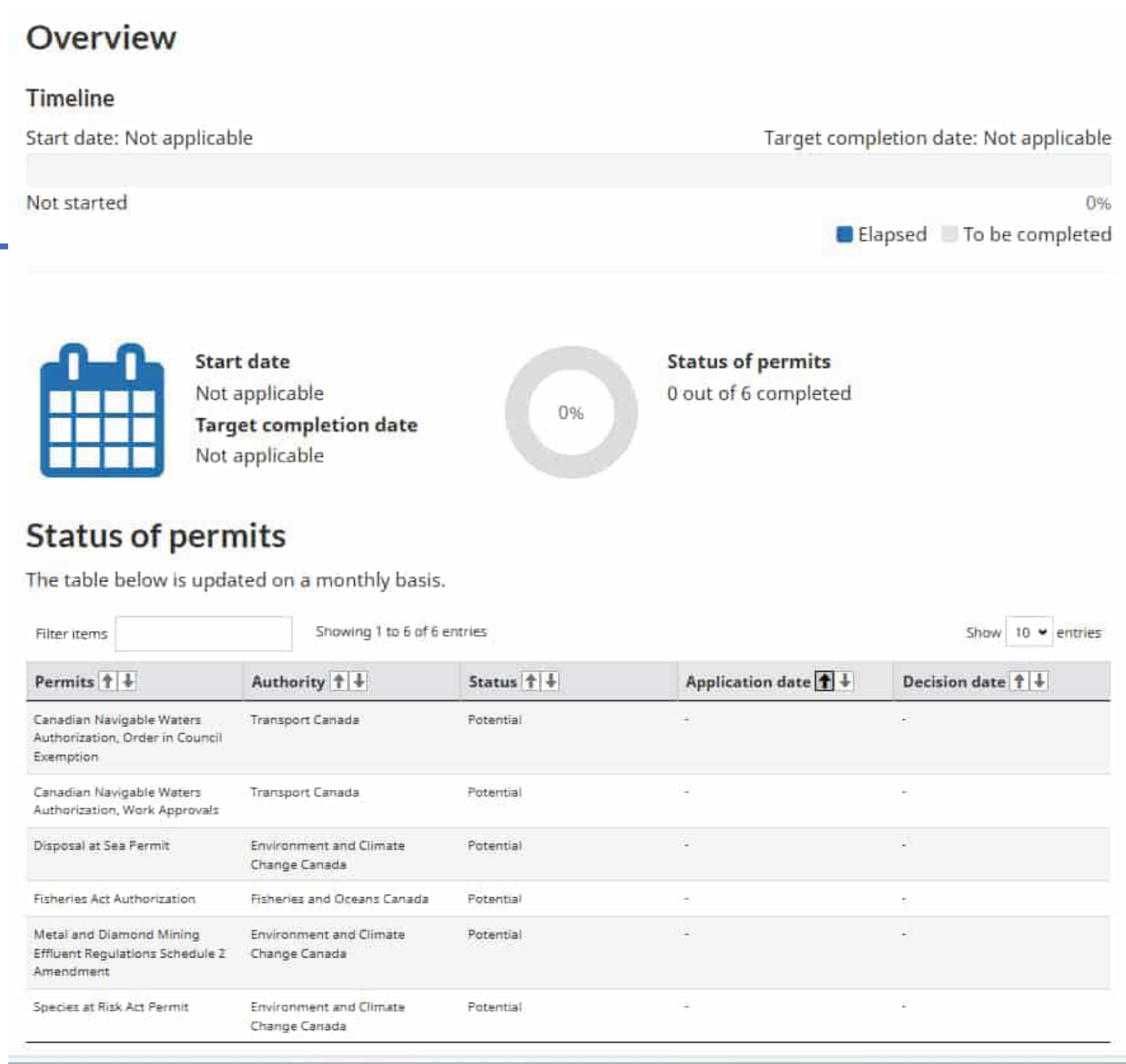
Federal department will be the lead for Indigenous consultation for their respective permitting processes.

PERMIT

Transparency through public tracking and reporting of each permit status, progress and timelines on the Canadian Impact Assessment Registry.

The Permit Dashboard: Permits

- Display each federal permit processes, including status, key milestones, and progress against the applicable timeline targets.
- The status and timeline of each federal permits will be updated monthly.



Overview

Timeline

Start date: Not applicable — Target completion date: Not applicable

Not started — 0%

Elapsed — To be completed

Start date
Not applicable
Target completion date
Not applicable

0%

Status of permits
0 out of 6 completed

Status of permits

The table below is updated on a monthly basis.

Filter items — Showing 1 to 6 of 6 entries — Show 10 entries

Permits	Authority	Status	Application date	Decision date
Canadian Navigable Waters Authorization, Order in Council Exemption	Transport Canada	Potential	-	-
Canadian Navigable Waters Authorization, Work Approvals	Transport Canada	Potential	-	-
Disposal at Sea Permit	Environment and Climate Change Canada	Potential	-	-
Fisheries Act Authorization	Fisheries and Oceans Canada	Potential	-	-
Metal and Diamond Mining Effluent Regulations Schedule 2 Amendment	Environment and Climate Change Canada	Potential	-	-
Species at Risk Act Permit	Environment and Climate Change Canada	Potential	-	-

PROPONENT CONDITIONS

Achieving the targets requires proponents to engage early with federal entities and in good faith with affected communities, and to provide timely information to enable decision-making. Proponents must:

Be Ready to Start: Be ready to submit application(s) as part of the permitting process

Be Able to Provide Comprehensive Applications: Make best efforts to submit applications for authorizations and permits that meet the requirements set out by the federal regulators.

Actively Participate: Actively participate in the permitting process, including promptly responding to requests for information or clarification from regulators or from Indigenous groups.

Meaningfully Engage with Indigenous Groups: Follow best practices for Indigenous consultation and engagement and document and address concerns, where possible.

Consent to Public Disclosure: Consent to having its project, and the status of its federal authorization and permitting processes, shown on a public dashboard. Note the permit application documentation will not be made publicly available.

Developing a Detailed Permitting Plan

Kick-Off Meeting

OBJECTIVE

Align on approach to develop detailed permitting plan (DPP)

Identify known challenges and potential solutions for permits

ROLES

- Organize and chair meeting
- Overview of permitting coordination process
- Role of Crown consultation coordinator
- Identify **project schedule** and expected permits
- Provide project-specific **guidance and information** on required permits

Draft Detailed Permitting Plan (DPP)

OBJECTIVE

Provide clarity on permit requirements and timelines

ROLES

IAAC and Federal Authorities:

- **Draft** DPP
- *Utilise available information from IS/EIS and proponent to identify challenges*
- *Identify permits required for project to start construction*

Proponent review of Draft Detailed Permitting Plan

OBJECTIVE

Align on DPP specifics and how target will be met

Groundtruth DPP with project plans and timelines

ROLES

IAAC and Federal Authorities:

- Share draft DPP with proponent for feedback
- Meet with Proponent to **review and find alignment**

Proponent:

- Identify **specific anticipated timelines** to collect permit information required for each permit
- Propose permit application submission schedule

Finalize Detailed Permitting Plan

OBJECTIVE

Approve final DPP by respective senior management.

ROLES

Federal Authorities and Proponent:

Approve of DPP

IAAC:

Approve DPP

Update **Permitting Dashboard** on Registry

**DPP may be updated if project changes, or significant new information becomes available*

Implementation

OBJECTIVE

Execute DPP to meet permitting target and schedule and timelines

ROLES

IAAC:

Arrange **Regular Touch-Base meetings** with Proponent, and FAs as permits progress

Address any issues as they arise

Proponent and Federal Authorities:

Complete **permit applications** in alignment with DPP, be responsive

Regulatory Efficiency Action Council:

Monitor progress

NEXT STEPS

Permitting coordination involves working early with other federal regulators to help the proponents navigate the federal regulatory system to improve **clarity**, **predictability** and **transparency** on permitting requirements and timelines.

1. The proponent remains engaged in the permitting process by sharing project updates and timelines for permitting and Project construction.
2. The Impact Assessment Project Team will remain the point of contact until the end of the Impact Assessment process. Federal regulators and IAAC permitting coordination team will be the contact post-decision.
3. A Detailed Permitting Plan including key milestones and timelines will be drafted after the kick-off meeting and will be shared with proponent
4. Permitting status progress will be tracked and updated monthly on the Canadian Impact Assessment Registry.

Improving Regulatory Efficiency

OUR WORK IS JUST BEGINNING

For any questions reach out to:
Permit.Coordination.Permis@iaac-aeic.gc.ca

August 2025

Great Bear Project

Federal Environmental Approvals

- Kick-off Meeting

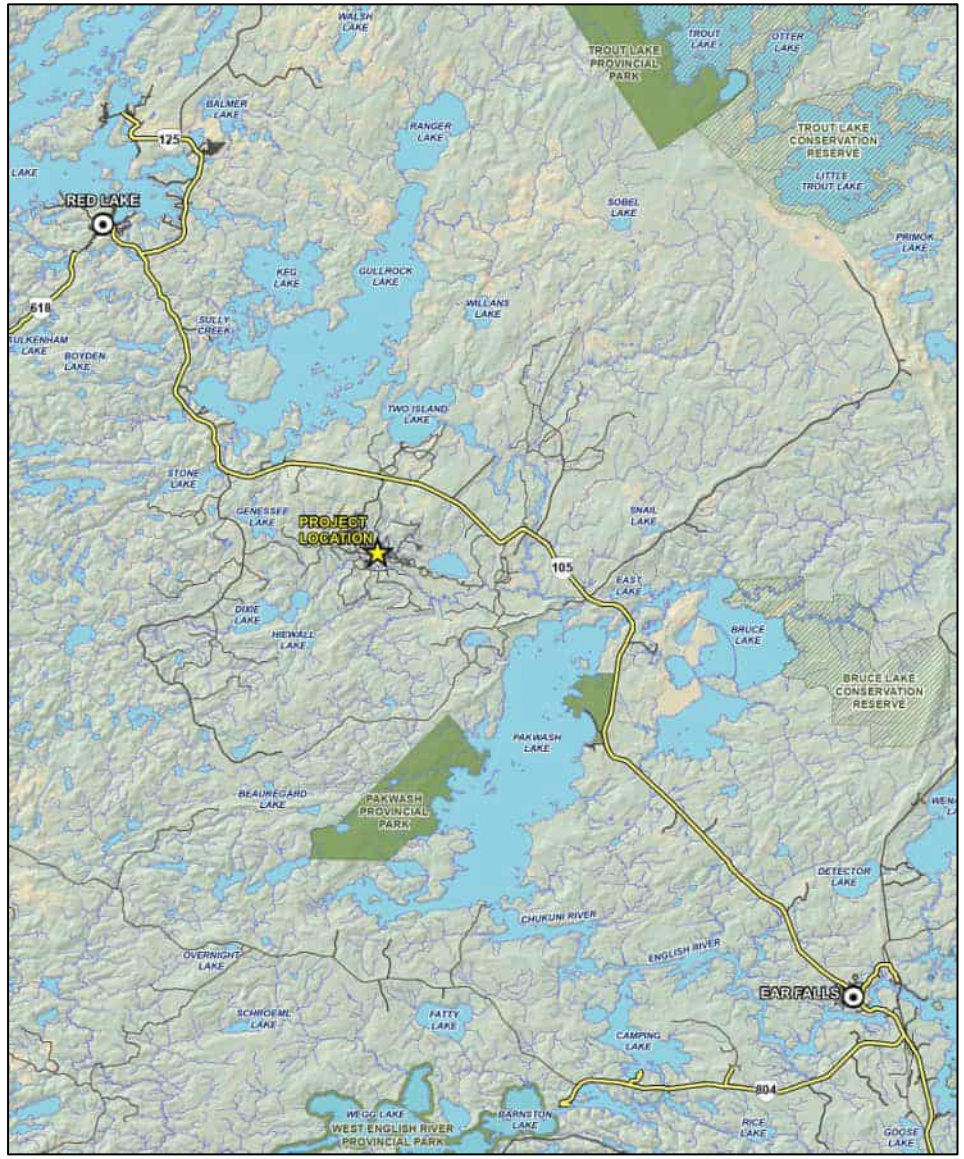
Background

GREAT BEAR PROJECT

— Great Bear Resources Ltd., a wholly owned subsidiary of Kinross Gold Corp., propose to develop a gold mine and processing complex on the Great Bear Property

— Located between Red Lake and Ear Falls along a regional highway in northwestern Ontario

— 3 years of construction followed by 26-year mine life



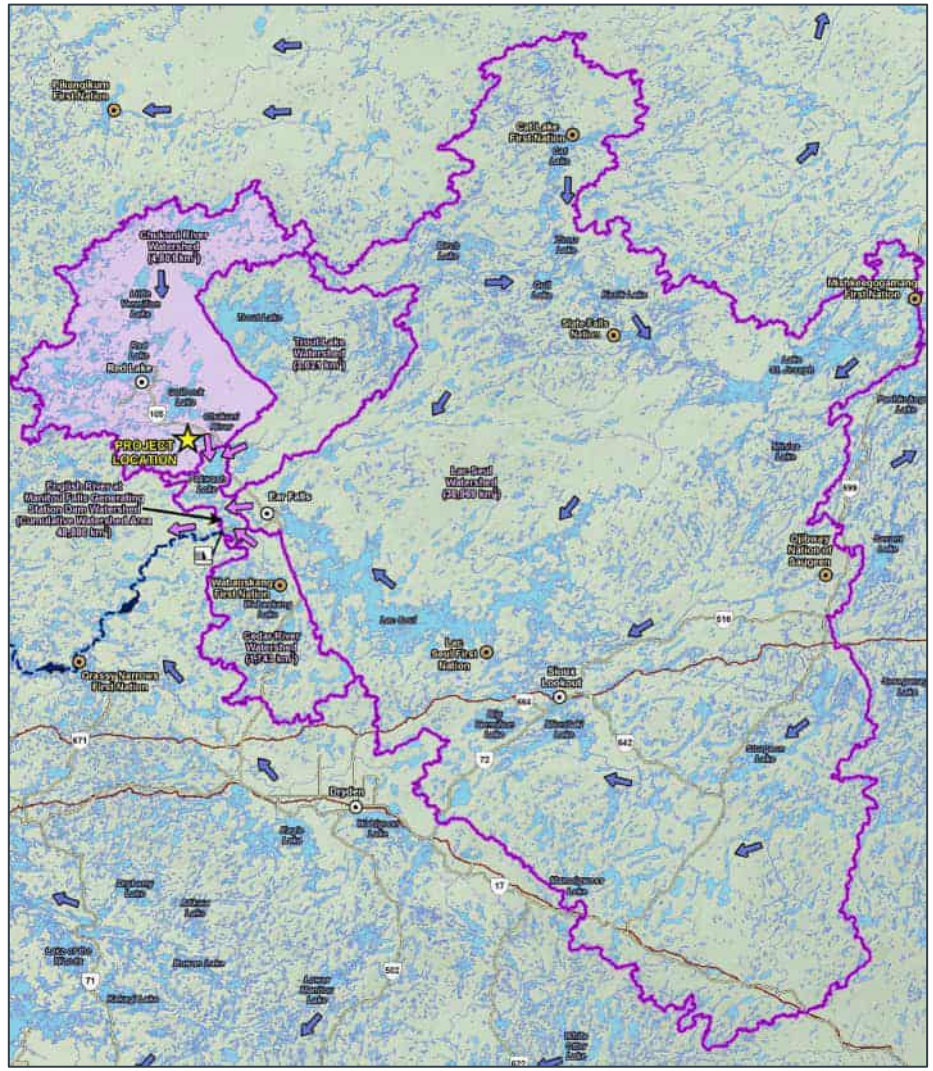
- **Environmental Baseline Studies:**
  - *extensive environmental baseline studies completed to date*
  - *multi-year, multi-season data collection where appropriate*
  - *designed programs were supplemented to respond to comments received from LSFN and WFN*
    - included enhanced eDNA studies as well as expanded surface water sampling program and extended mercury baseline
- **Indigenous Knowledge Studies:**
  - *Great Bear Resources funded and has also supported local Indigenous Nations in the completion of comprehensive TK / TLRU data collection*

02.

Environmental Background

GREAT BEAR PROJECT

- Landscape is glaciated bedrock terrain, with an undulating topography
- Project is situated at a tributary to the Chukuni River, a relatively large water system that flows into Pakwash Lake
- Pakwash Lake receives waters from a very large area and discharges southward into the English River system
- Local fish communities represent cool to coldwater species typical of northern Ontario



02.

Environmental Background

GREAT BEAR PROJECT

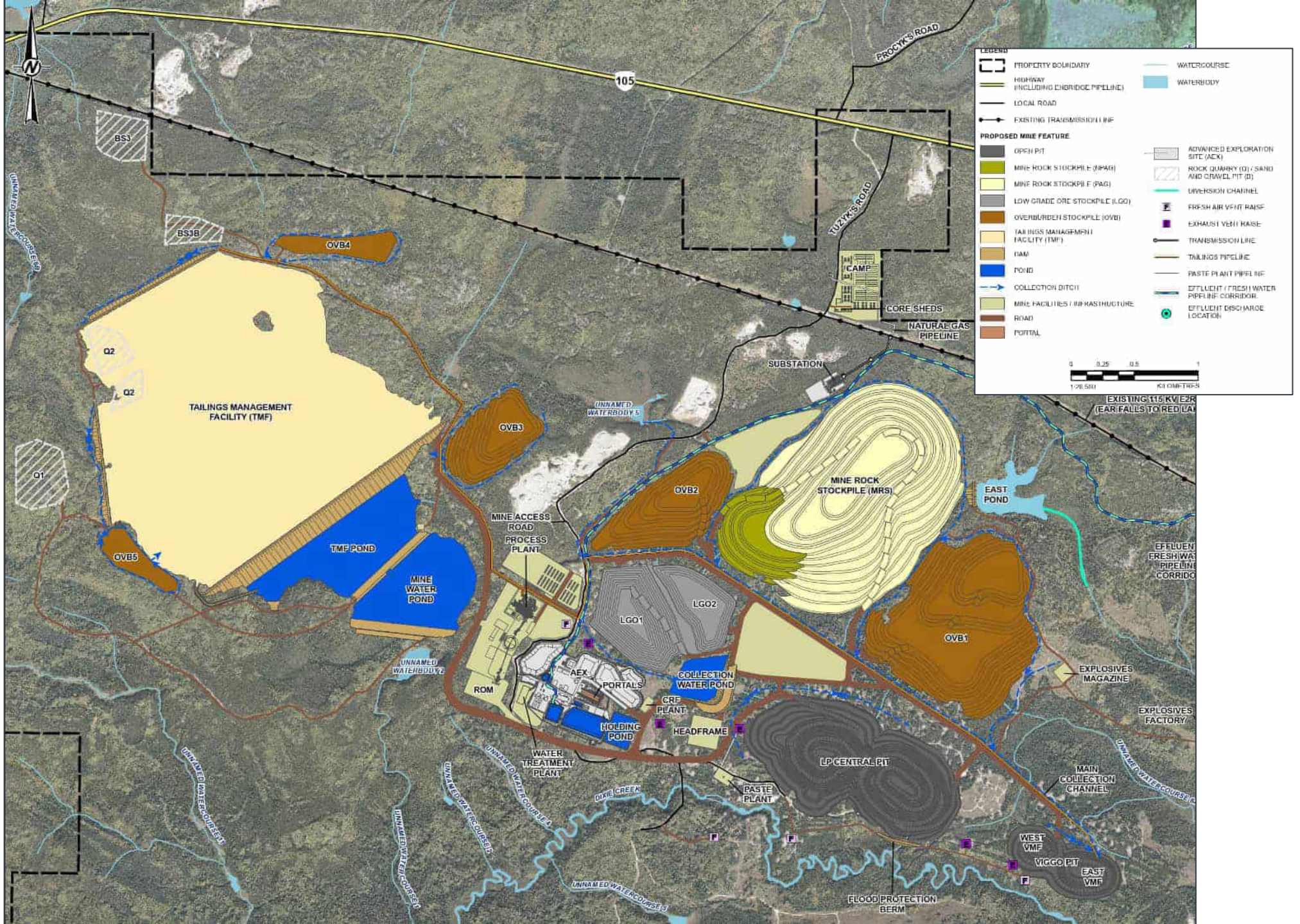
- The Sustainable Forest License holder has previously harvested timber on portions of the Great Bear Property
- Coniferous and mixed forests are present on much of the rest of the Property
- Mammals and birds typical of northwestern Ontario are present
- Mammal and bird SAR present include wolverine, bats and a few migratory birds

- Proposed mine is comprised of underground workings and two open pits
- A compact footprint proposed, re-using and expanding on facilities and infrastructure developed for the Advanced Exploration Program
- Waterbodies and watercourses have been avoided as reasonable
- Residual mineral wastes from mining and processing will be stored in a manner that supports long-term physical and chemical stability
  - *In-pit storage (concentrate tailings)*
  - *Tailings management facility (desulphurized tailings)*
  - *Re-use in underground mine backfill (mine rock and whole tailings)*
  - *Stockpiles (overburden and mine rock)*

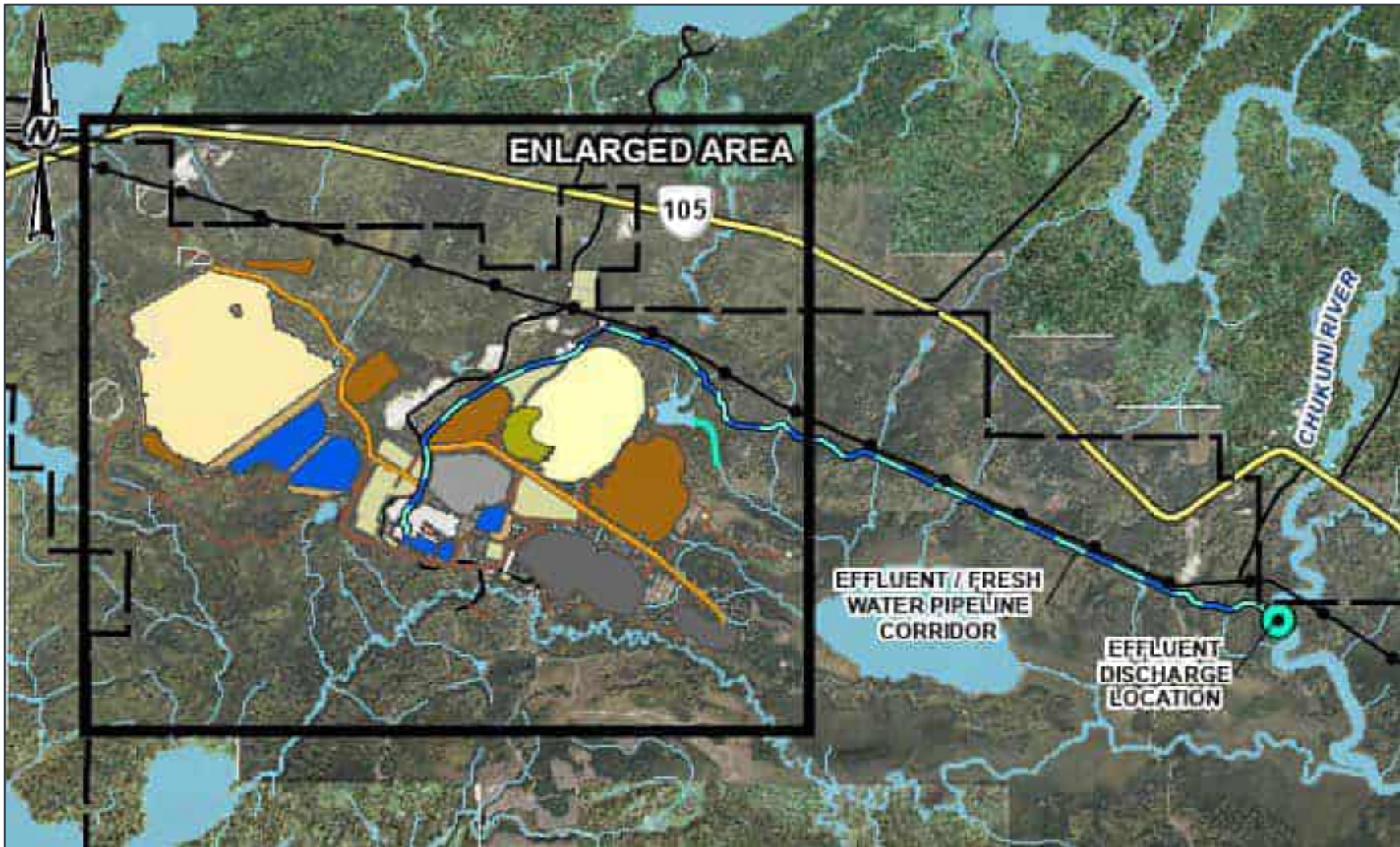
03.

Project Overview

GREAT BEAR PROJECT



— Fresh water will be taken, and treated effluent will be discharged to the Chukuni River, a large watercourse with high assimilative capacity



04.

Approval Framework

GREAT BEAR PROJECT

- Project has been designed to mitigate environmental effects and reduce the regulatory approvals required as reasonable
- Approvals will be required from both federal and provincial regulatory agencies
- No municipal approvals are required

Paragraphs 34 and 35 Authorizations, *Fisheries Act*, DFO:

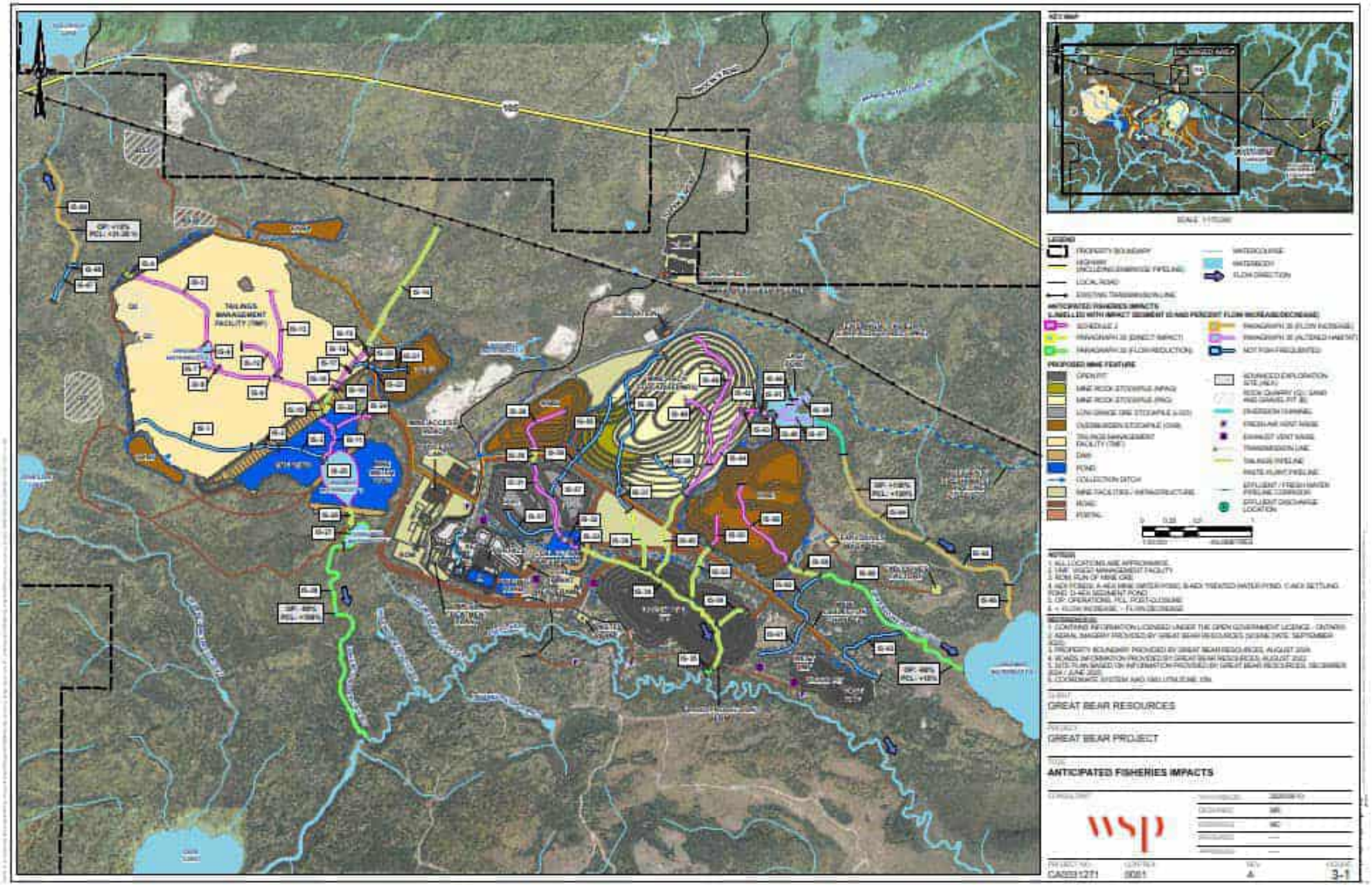
- A number of unnamed waterbodies and watercourses, as well as Dixie Creek and the Chukuni River, are present within or intersect the Project Area
- The Project will result in direct and indirect effects to fish and fish habitat
- Authorization(s) will be required for Project-related facilities and activities that could result in the HADD, for the construction and operation of the following facilities:
  - *LP Central pit and associated infrastructure*
  - *Laydown areas*
  - *Freshwater diversions*
  - *Water intake and discharge structures*
  - *Roads, pipelines and other infrastructure.*

- There will also be indirect impacts to local watercourses that support fisheries requiring authorization from:
  - *Localized lowering of the groundwater table by mine dewatering*
  - *Diversion of natural runoff and surface flow away from Project facilities*
  - *Collection and treatment of runoff from within the Project site for discharge to the Chukuni River.*
- A combined Offsetting Plan for the Paragraph 35(2)(b) Authorization and a Fish Habitat Compensation Plan for the Schedule 2 MDMER listing has been prepared in draft
- The draft plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated plan will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

05.

Federal Approvals
– *Fisheries Act*

GREAT BEAR PROJECT



Amendment to Schedule 2 of the MDMER, *Fisheries Act*, ECCC (DFO):

- Required for fish-frequented watercourses and waterbodies overprinted by the:
  - *Tailings management facility*
  - *Mine rock, ore and overburden stockpiles*
  - *Contact water ponds*.
- The draft combined Offsetting Plan and Compensation Plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated plan will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

Amendment to Schedule 2 of the MDMER, *Fisheries Act*, ECCC (DFO):

- Required for fish-frequented watercourses and waterbodies overprinted by the:
  - *Tailings management facility*
  - *Mine rock, ore and overburden stockpiles*
  - *Contact water ponds*.
- An alternative assessment for mine waste disposal has been prepared to support the amendment to Schedule 2 in the prescribed format as per the ECCC (2016) guidelines
- The draft alternative assessment will be shared with ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
- Updated assessment will be included as an appendix to Impact Statement, including to facilitate additional consultation and engagement

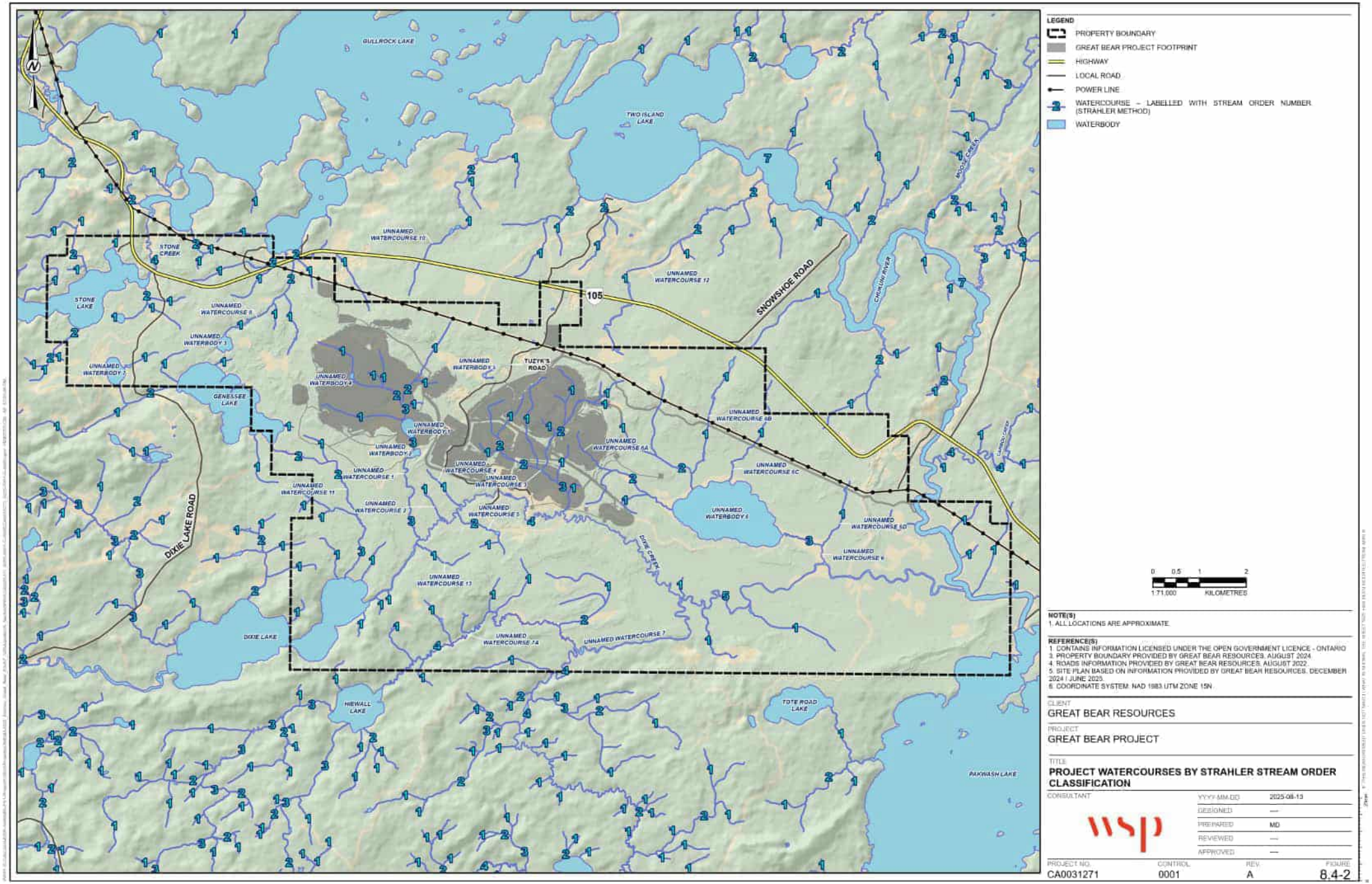
Works in Navigable Waters, *Canadian Navigable Waters Act*, TC:

- There are no watercourses on the Schedule to the *Act* that will be affected by the Project
- Great Bear Resources has actively requested information regarding use of the waterbodies and watercourses during consultation and engagement activities
  - *To date, there has been no confirmation of past, present or planned future use of any of the unnamed waterbodies and watercourses within the Project Area or Dixie Creek from any Indigenous Peoples*
  - *There is known current and past use of the Chukuni River by Indigenous Peoples and members of the public*
- Information presented and comprehensive document submitted to TC in 2024 to support determination of navigability
- TC assessment remains outstanding

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT



- Majority of the minor watercourses / waterbodies within the Project Area that will be directly or indirectly impacted are stream orders 1 and 2)
- Many are very shallow, with intermittent flows at times of the year, or are blocked by natural vegetation overgrowth
- Accessibility is limited including due to land ownership / control
- There is no known use of these minor watercourses for navigation (recreation or past / current use by Indigenous peoples or the public)

UW-1 (July 2023)

UW-3 (June 2022)

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT

- Dixie Creek which passes through the Project Area is not known to have use or be used by Indigenous Peoples
- Shallow during parts of year with navigation constraints
- No proposed in-water works; existing bridge may be re-developed
- There will be an indirect reduction in flow and level from collection of contact water within the Project area
  - *Maximum reduction in flow in Dixie Creek will be about 10%, equivalent to a water level decrease of about 3 cm*

Dixie Creek -3 (July 2025)

- Based on knowledge of current and historic use by Indigenous Peoples and pending further guidance, Great Bear Resources has assumed that only the Chukuni River will be considered navigable
- An intake and outfall pipeline and diffuser will be established for the Project at the western shore of the Chukuni River
  - *The outfall for the Project into the Chukuni River has been sited to maximize diffusion and mixing of the treated effluent; accordingly, it may not be able to be classified as minor works under the TC Minor Works Order.*
  - *Approval under the Major Works Order (Category 2) is expected to be required*
  - *An Application will be submitted to the Navigable Protection Program.*
- Other approval requirements if any, to be determined based on TC assessment

06.

Federal Approvals
– Navigable Waters

GREAT BEAR PROJECT

Chukuni River West Bank
(approximate pipeline location)

07.

Federal Approvals
- Other

GREAT BEAR PROJECT

- No other federal environmental approvals are anticipated to be required by Great Bear Resources for the Project
- Effects to migratory birds will be mitigated including through effective Project scheduling (thereby avoiding need for approvals)
- Explosives manufacturing and storage will be under the care and control of a qualified contractor, and approvals will be obtained by that company as needed

Approval	Description
Closure Plan *Mining Act, Build More Mines Act* Energy and Mines	The professionally-certified Closure Plan will regulate mine-related facilities and activities on the Project mining leases, including dams not otherwise approved. Financial assurance for the estimated reclamation costs will be provided to the Province. A draft focussed on the technical aspects of progressive and final reclamation will be appended to the Impact Statement.
Environmental Compliance Approval – Air and Noise *Environmental Protection Act* Ministry of Environment Conservation and Parks (MECP)	Approval is required for air emissions and noise from the Project, such as from the mine and process plant.
Environmental Compliance Approval – Industrial Sewage Works *Environmental Protection Act* MECP	The integrated water management and treatment system including the collection ponds, TMF, TMF pond, minewater pond and water treatment plant will require approval from the Province. A separate approval from the Province may be required for the construction and operation of a domestic sewage treatment plant for the Project.

Approval	Description
Environmental Compliance Approval – Waste Management *Environmental Protection Act* MECP	Operation of a waste transfer site if required for the temporary storage and periodic transport of wastes off site for further management.
Overall Benefit Permit *Endangered Species Act* MECP	Project-related effects to a protected species or related habitat is required in return for providing an overall benefit to the species in Ontario. Consultation is ongoing with the MECP regarding potential permit requirements for the Project including potential mitigation measures.
Permit to Take Water *Ontario Water Resources Act* MECP	Approval is required to withdraw 50,000 L or more per day from a groundwater or surface water source (fresh water supply, by-pass pumping during construction and dewatering activities).
Aggregate Resource License *Aggregate Resource Act* Ministry of Natural Resources (MNR)	Dedicated extraction of sand and gravel and the quarrying of rock on the mining lease to provide aggregate for use.

Approval	Description
Permit to Cut (Forestry Resource License) *Crown Forest Sustainability Act* MNR	To approve the cutting of merchantable timber reserved to the provincial Crown for site development.
Scientific Collection Permit *Fish and Wildlife Conservation Act* MNR	Required to relocate fish from watercourses and waterbodies that will be affected by the Project prior to in-water construction.
Work Permits (or Letter of Authority) *Lakes and Rivers Improvement Act, Public Lands Act* MNR	Required for work on provincial Crown land including within any setback and / or below the high water mark of watercourses and waterbodies.
Work Permits *Lakes and Rivers Improvement Act* MNR	Required for dams on provincial Crown land below the high water mark of watercourses and waterbodies.
Land Use Permit *Public Lands Act* MNR	Required for land tenure for facilities located on provincial Crown land not governed by the *Mining Act*.

09.

Overview of Consultation to Date

GREAT BEAR PROJECT

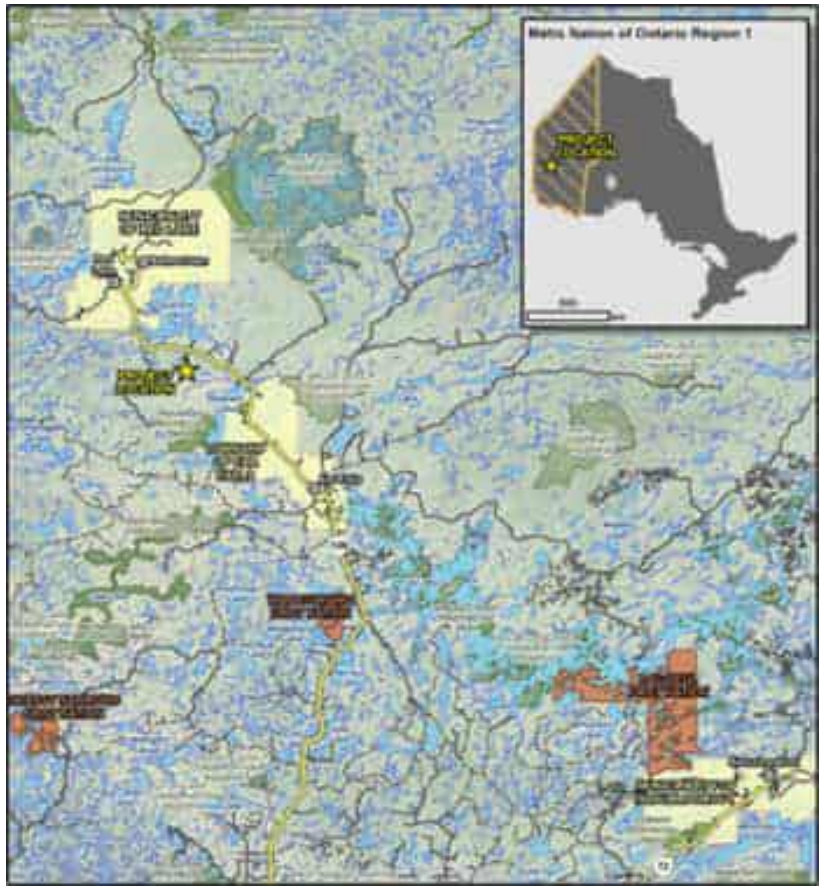
- Consultation and engagement has been ongoing since the property was purchased (2021)
- Indigenous communities, government agencies and ministries, and stakeholders anticipated to have an interest in the Project were identified by IAAC and Great Bear Resources during the Impact Assessment Planning Phase
- Guidance was also provided by the Province for the Advanced Exploration Program
- The initial list of interested parties has evolved over time and has been maintained and updated by Great Bear Resources

09.

Overview of Consultation to Date

GREAT BEAR PROJECT

- Engagement efforts to date have included several Indigenous communities with cultural and spiritual ties to the Project Area:
  - *Asubpeeschoseewagong Netum Anishinabek (Grassy Narrows First Nation)*
  - *Lac Seul First Nation*
  - *Northwestern Ontario Métis Community*
  - *Wabauskang First Nation*
- Regular meetings, open dialogue, and collaborative discussions have been held with interested communities, to address concerns related to environmental impacts, cultural heritage protection and socio-economic benefits



09.

Overview of Consultation to Date

GREAT BEAR PROJECT

Great Bear Resources' objectives for engagement on the Project include to:

- *Inform and update local area stakeholders, groups, Indigenous communities, and government agencies about the Project*
- *Share information and gather feedback on Project documents including but not limited to: environmental baseline studies, Project Description, closure plan, approval applications and the Impact Statement*
- *Understand Indigenous treaty rights and interests in the area that have the potential to be affected by the Project*
- *Document and respond to any issues or concerns raised by interested parties*
- *Demonstrate and discuss how comments heard previously were addressed through Project designs or management practices*
- *Meet regulatory requirements for engagement, to the extent reasonable.*

- Regarding the anticipated Federal approval processes, Great Bear Resources' objectives for engagement on the Project to date include to:
- Navigable waters:
  - *Obtain feedback from local Indigenous communities regarding the past, current and future use of local watercourses and waterbodies that may be affected by the Project*
- Fish and fish habitat:
  - *Present potential effects to fish and fish habitat, and request comments on proposed offsetting and compensation measures and obtain guidance on potential complementary measures*
- Mine waste alternatives:
  - *Present mine waste alternatives in community and committee meetings, and to technical review representatives to obtain feedback and address potential concerns.*

10.

Impact Statement Schedule

GREAT BEAR PROJECT

— Impact Statement

— *Document is in preparation*

Submission 1 - Q3 2025 (Sections 1, 2, 4, 5, 19, 22)

- *Introduction, Environmental Setting, Alternatives Assessment, Project Description and Activities, Environmental Approval Framework and Requirements, Authors and Qualifications*

Submission 2 – Q4 2025 (Sections 6, 7, 8, 9, 16, 17, 18)

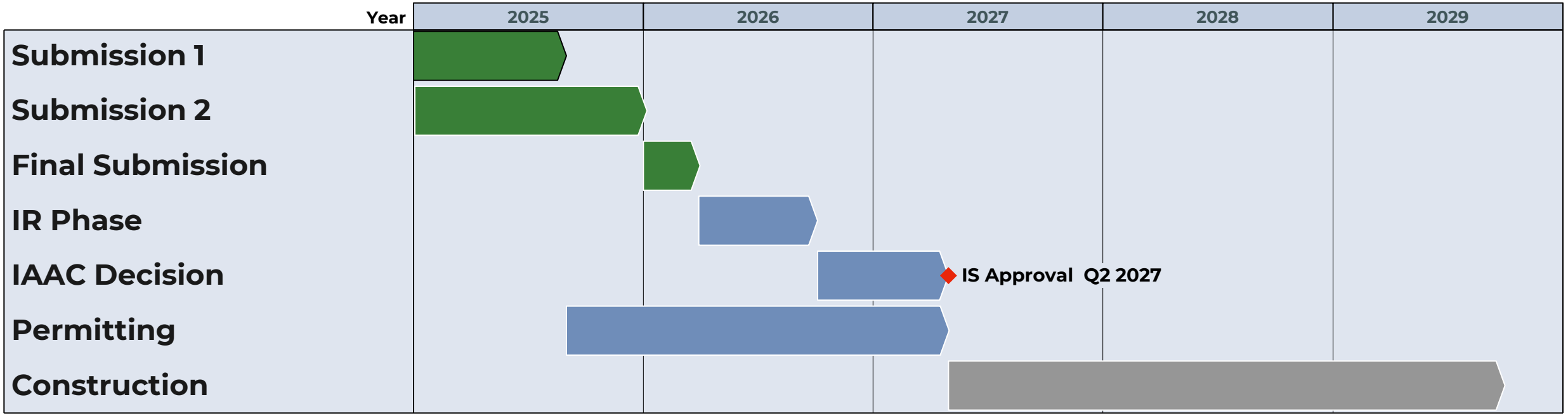
- *Effects Assessment Methodology, Analysis of Changes to pVCs, Changes to Fish and Fish Habitat, Changes to Migratory Birds, Accidents and Malfunctions, Effects of the Environment, Summary of Benefits, Related Technical Appendices*

Submission 3 - Q1 2026 (Sections 3, 10, 11, 12, 13, 14, 15, 20, 21)

- *Participation and Engagement, Indigenous Peoples LSFN, Indigenous Peoples WFN, Indigenous Peoples ANA, Indigenous Peoples NWOMC, Indigenous Peoples Red Lake and Ear Falls, Cumulative Effects, Environmental Management and Follow-up, Conclusions*

— *Technical workshops continue to be planned with regulatory agencies*

Overall Project Approvals / Construction Timeline



- **Federal approvals:**
  - *Requested to be concurrent with the Impact Assessment*
    - Information needs of the IAAC Permitting Coordination Team to prepare the Detailed Permitting Plan requested
    - Timeline for issuance of Detailed Permitting Plan
  - *Path forward discussion on coordination*
- ***Fisheries Act:***
  - *Draft Offsetting Plan for the Paragraph 35(2)(b) Authorization and a Fish Habitat Compensation Plan for the Schedule 2 will be available shortly*
    - The draft Plan will be shared with DFO and ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
    - Engage and review updated draft Plan concurrent with Impact Statement
    - Authorization approval process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Authorization(s)*

- ***MDMER, Fisheries Act:***
  - *A draft alternative assessment in the prescribed format as per the ECCC (2016) guidelines will be available shortly*
    - The draft alternatives assessment will be shared with ECCC as well as Indigenous communities in the near term, to facilitate early review and feedback
    - Engage and review updated draft Plan concurrent with Impact Statement review
    - Schedule 2 process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Schedule 2 process*
- ***Canadian Navigable Waters Act:***
  - *Update on timing of TC decision request to allow for effect Project design and approval planning*
    - Major Works approval process expected to be completed in parallel with Impact Statement review and approval
  - *Path forward discussion on Navigable Waters approvals process*

THANK YOU

Fisheries and Oceans Canada | Pêches et Océans Canada

Fish and Fish Habitat Protection Permit Requirements

Fisheries and Oceans Canada
2025

Canada

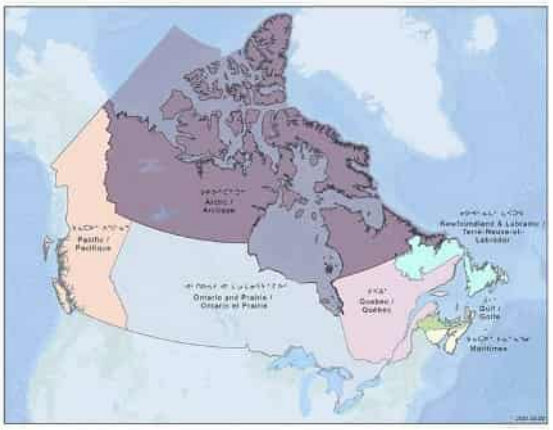
Purpose: Identify anticipated regulatory and construction timelines, as well as Indigenous engagement activities AND Discuss project-specific permitting processes and anticipated challenges for each of the federal permits required for the project to start construction

Fish and Fish Habitat Protection Program (FFHPP) Organization Structure

FFHPP provides regulatory review and advice related to a project's impact on fish and fish habitat, and aquatic species at risk, to ensure compliance with provisions of the *Fisheries Act* and *Species at Risk Act*.

Ontario and Prairie region review projects from Alberta to Ontario. Projects are reviewed based on subject matter expertise.

- Edmonton – Mining, Oil, and Gas
- Regina – Linear Development
- Winnipeg – Hydro and Flows
- Burlington – Triage, Coastal and Marine, Occurrence Team



General Prohibitions of the *Fisheries Act*

Death of Fish
(Subsection 34.4 (1))

No person shall carry on any **work, undertaking or activity**, other than fishing, that results in the **death of fish**

Harmful Alteration, Disruption, or Destruction
(Subsection 35 (1))

No person shall carry on any **work, undertaking or activity** that results in the **harmful alteration, disruption or destruction of fish habitat**

"fish habitat: water frequented by fish and any other areas, on which fish depend directly or indirectly in order to carry out their life processes, including, spawning grounds, nursery, rearing, food supply and migration areas"

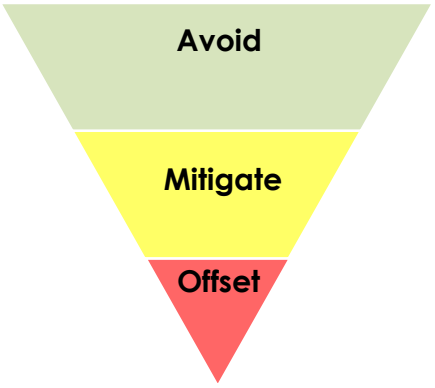
FFHPP focuses on the fish and fish habitat protection provisions of the Fisheries Act when completing regulatory review assessments – specifically subsections 34.3(1) and 35(1), and SARA prohibitions if applicable.

The Fisheries Act is structured in a way that prohibits persons from conducting works, undertakings or activities that contravene the prohibitions, unless they are carried out in accordance with exceptions listed in Fisheries Act. If you can complete your project without contravening the prohibitions then you do not have to come to DFO however, if you will contravene or are unsure, it is recommended that you submit for review.

Unclassified - Non-Classifié

How Does DFO Manage Risk of Harmful Impacts?

DFO works with proponents to **avoid** or **mitigate** impacts whenever possible, and, when necessary, to **offset** harmful impacts to fish and fish habitat.



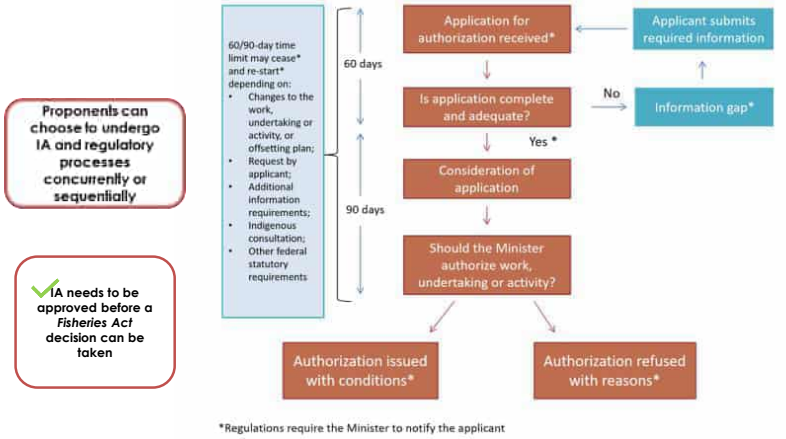
Provide advice and guidance to avoid impacts to fish and fish habitat. Measures to avoid impacts can be found on the *Projects Near Water* website (i.e., Measures to Protect Fish and Fish Habitat).

Provide advice and guidance to mitigate (minimize) impacts to fish and fish habitat.

Determine offsetting required when harmful impacts to fish and fish habitat can't be avoided or mitigated. This can include building new habitat near to the project site.

DFO expects proponents to follow the hierarchy of measures and explicitly address in their submissions and applications how they have applied it to reduce harm to fish and fish habitat from their project. It is important to describe how and why the project design landed at the current state. For example, infrastructure avoiding watercourses where possible and why the watercourse could not be avoided.

Fisheries Act Authorization Timelines



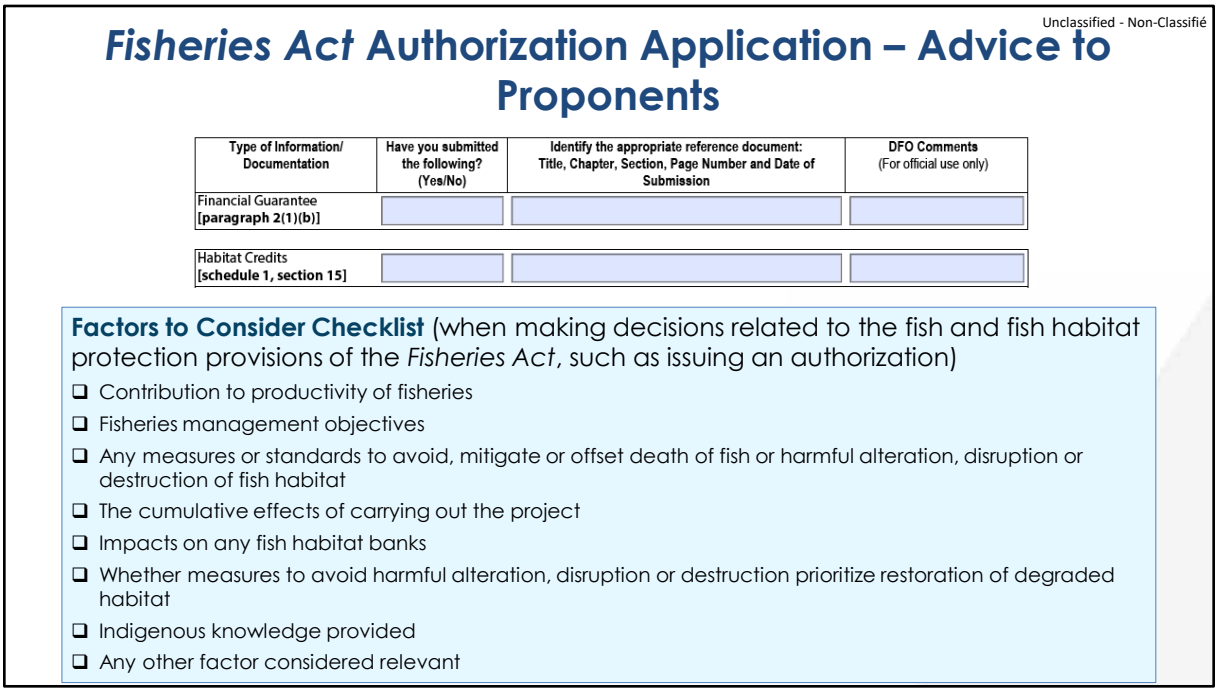
Before we get into the authorization application, we are providing an overview of the process timelines and some key points with its link to the Impact Assessment Process.

First, you can choose to undergo the IA and regulatory process concurrently or sequentially. The challenge DFO often sees is that the level of detail on impacts and offsetting required for the FAA may not be available yet. Significant efficiencies for timelines and consultation could be gained if the level of detail required for the FAA was available during the IA.

While you can choose to undergo them concurrently, the IA needs to be approved before the Fisheries Act authorization decision can be made.

Timelines:
- Application received triggers the 60-day clock. Biologists review for completeness and adequacy. The clock will be paused if the application is deemed incomplete (e.g., missing information such as financial guarantee) or inadequate (e.g., not enough baseline data)
- Once the application is sufficient, DFO will initiate consultation. This also pauses the clock.
- Following consultation and the completion of the application (i.e., financial guarantee), DFO will deem the application complete and start the 90-day clock for consideration of application. This is where the Minister will either decide to issue or refuse the

application. This clock can also be paused for various reasons such as IA decision or ECCC schedule II amendment.



Unclassified - Non-Classifié

Fisheries Act Authorization Application – Advice to Proponents

Type of Information/ Documentation	Have you submitted the following? (Yes/No)	Identify the appropriate reference document: Title, Chapter, Section, Page Number and Date of Submission	DFO Comments (For official use only)
Financial Guarantee **[paragraph 2(1)(b)]**			
Habitat Credits **[schedule 1, section 15]**			

Factors to Consider Checklist (when making decisions related to the fish and fish habitat protection provisions of the *Fisheries Act*, such as issuing an authorization)

- ❑ Contribution to productivity of fisheries
- ❑ Fisheries management objectives
- ❑ Any measures or standards to avoid, mitigate or offset death of fish or harmful alteration, disruption or destruction of fish habitat
- ❑ The cumulative effects of carrying out the project
- ❑ Impacts on any fish habitat banks
- ❑ Whether measures to avoid harmful alteration, disruption or destruction prioritize restoration of degraded habitat
- ❑ Indigenous knowledge provided
- ❑ Any other factor considered relevant

DFO requires a formal application with signature. Please reference where the information can be found within the application package.

Important to ensure that the Proponent company name will match what is specified on the financial guarantee. This is the name in which the Authorization will be issued to. Any changes to the company name will require an amendment and reissuance of financial guarantee.

It is recommended to submit a cost estimate with a breakdown, but NOT the financial guarantee with the initial application – sometimes offsetting can change as a result of consultation. It is easier to submit one final financial guarantee document once DFO has nearly completed consultation.

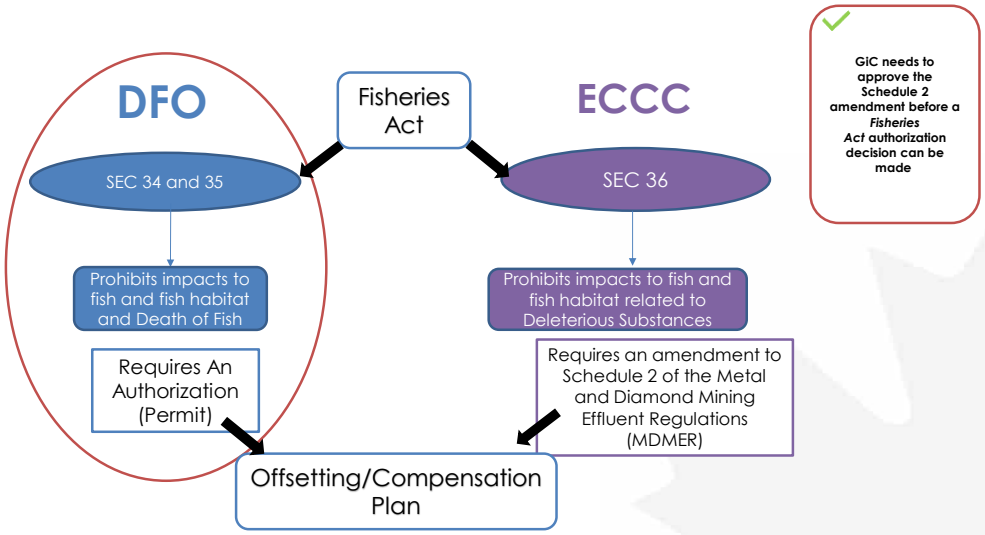
Habitat Credits may be not applicable as it is only used by Proponents who have approved Habitat Banking.

Factors to Consider Checklist: DFO assessors must consider all of these aspects when reviewing a project. It is important for Proponents to address these within their application.

- Fisheries management objectives could be the Recovery Strategy for SAR or provincial fish management plans

- Cumulative effects are a hot topic, especially for Indigenous Peoples. Proponents should refer to DFO's Cumulative Effects Position Statement (link in another slide).

MDMER Schedule 2 Amendment



In addition to its role in IA, DFO also plays a significant role in the process to amend Schedule 2 of the Metal and Diamond Mining Effluent Regulations, if one is required.

ECCC administers the MDMER amendment process under the pollution prevention provisions of the Fisheries Act. In that process, DFO provides expert advice to ECCC on the fish-frequented status of waterbodies proposed to store waste, and on the adequacy of the fish habitat compensation plan.

If a Fisheries Act Authorization is also required, one offsetting/compensation plan can be developed to account for all impacts under Sections 34, 35 and 36, but it is not a requirement i.e. two separate plans could be made. If there is a joint plan, DFO typically conducts Crown consultation with ECCC.

DFO cannot issue a *Fisheries Act* Authorization for works until ECCC has approved the Schedule 2 amendment

Duty To Consult – Advice to Proponents

Crown Indigenous Relations and Northern Affairs provides Government of Canada Guidance to Proponents on Crown consultation.

Consideration should be given to Aboriginal and Treaty right impacts as a result of impacts to fish and fish habitat including (non-exhaustive): ceremonial, harvesting, access, etc.

DFO does not delegate duty to consult responsibilities to proponents like some provinces do.

Where possible, DFO will work closely with other departments and coordinate consultation activities as feasible. DFO's consultation process is typically **separate** from the Impact Assessment process but there are opportunities for better alignment.

DFO will work with Proponents to address relevant concerns raised during the consultation process. Swift Proponent responses to requests during consultation supports the review process.

Artist: Gerald Gloade

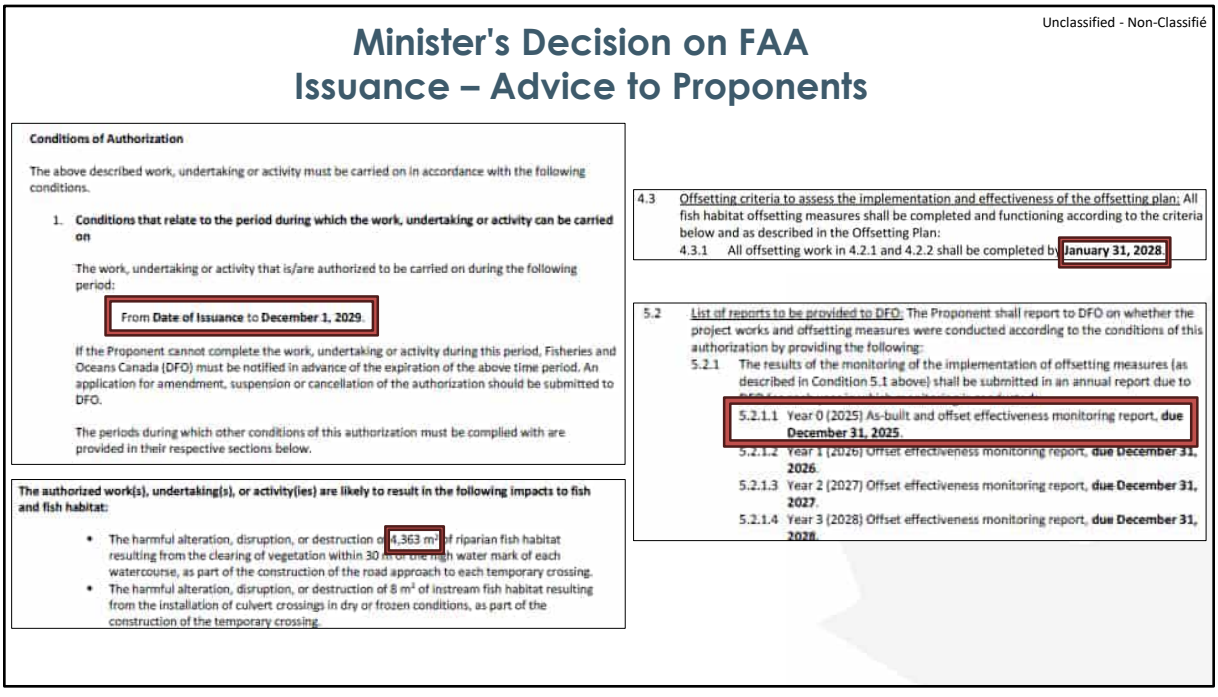
Although DFO does not delegate consultation to the Proponent, we can refer to the Proponents engagement records. It is important for the Proponent to engage early and often and keep accurate records for DFO's reference.

DFO, ECCC and Transport Canada will conduct joint consultation where possible. This is especially the case where ECCC and DFO share one offsetting/compensation plan.

The consultation process for DFO is separate from the Impact Assessment's process, but if information related to DFO's authorization (e.g. offsetting) was provided during IA, consultation could be better aligned and coordinated.

****Project specific addition :** For the Great Bear Gold Project, we have confirmed that the scope of communities DFO would require consultation with aligns with the Agencies list.

Minister's Decision on FAA Issuance – Advice to Proponents



Conditions of Authorization

The above described work, undertaking or activity must be carried on in accordance with the following conditions.

1. **Conditions that relate to the period during which the work, undertaking or activity can be carried on**

The work, undertaking or activity that is/are authorized to be carried on during the following period:

From **Date of Issuance** to **December 1, 2029**.

If the Proponent cannot complete the work, undertaking or activity during this period, Fisheries and Oceans Canada (DFO) must be notified in advance of the expiration of the above time period. An application for amendment, suspension or cancellation of the authorization should be submitted to DFO.

The periods during which other conditions of this authorization must be complied with are provided in their respective sections below.

The authorized work(s), undertaking(s), or activity(ies) are likely to result in the following impacts to fish and fish habitat:

- The harmful alteration, disruption, or destruction of 4,363 m² of riparian fish habitat resulting from the clearing of vegetation within 30 m of the high water mark of each watercourse, as part of the construction of the road approach to each temporary crossing.
- The harmful alteration, disruption, or destruction of 8 m² of instream fish habitat resulting from the installation of culvert crossings in dry or frozen conditions, as part of the construction of the temporary crossing.

4.3 Offsetting criteria to assess the implementation and effectiveness of the offsetting plan: All fish habitat offsetting measures shall be completed and functioning according to the criteria below and as described in the Offsetting Plan:

4.3.1 All offsetting work in 4.2.1 and 4.2.2 shall be completed by **January 31, 2028**.

5.2 List of reports to be provided to DFO: The Proponent shall report to DFO on whether the project works and offsetting measures were conducted according to the conditions of this authorization by providing the following:

5.2.1 The results of the monitoring of the implementation of offsetting measures (as described in Condition 5.1 above) shall be submitted in an annual report due to

5.2.1.1 Year 0 (2025) As-built and offset effectiveness monitoring report, **due December 31, 2025**.

5.2.1.2 Year 1 (2026) Offset effectiveness monitoring report, **due December 31, 2026**.

5.2.1.3 Year 2 (2027) Offset effectiveness monitoring report, **due December 31, 2027**.

5.2.1.4 Year 3 (2028) Offset effectiveness monitoring report, **due December 31, 2028**.

After consultation is complete, it is ultimately the ministers decision to issue or refuse the *Fisheries Act* Authorization.

If an Authorization is issued there will be a series of conditions within the Authorization that will be required to be met. Failure to comply with any conditions of the authorization (including reporting) is considered an offence under Paragraph 40(3)(a) of the *Fisheries Act,* and can result in enforcement action.

Proponents should provide realistic scheduling timelines and accurate quantification of potential impacts to fish and fish habitat. When in doubt, aim to be on the conservative side of things. Any potential changes to dates or footprints will require an amendment, which depending on the scale of change, may require further consultation and/or offsetting.

Sufficient and valid rationale must be provided for any proposed amendments, including things such as offsetting construction dates (condition 4.3). DFO will make a determination as to whether an amendment is the appropriate tool for the circumstance. Proposing changes to offsetting completion for reasons such as poor time management/resource allotment is typically not acceptable.

- The first date under condition 1 refers to the date in which the works causing the harmful alteration, disruption or destruction of fish habitat must be completed by.
- The date in condition 4.3 refers to the date in which the offsetting must be constructed by.
- The dates in condition 5.2.1 refers to the reporting deadlines associated with the offsetting.

Missing any of these dates is considered non-compliance.

Tips to Avoid Delays

- Engage Indigenous Peoples early and provide capacity for review
- Engage DFO early; we will review drafts or participate in meetings
- Ensure sufficient detail in the application
  - ➢ multi-season and multi-year baseline surveys, project designs and construction methods
  - ➢ consider all pathways of potential impacts – commonly missed impacts include blasting and groundwater/surface water alterations resulting in impacts to fish habitat
- Include a comprehensive offsetting plan
  - ➢ detailed design drawings (including revegetation plans)
  - ➢ realistic and achievable success criteria for the specified monitoring years
  - ➢ monitoring linked to offsetting objectives
  - ➢ cost estimates (account for monitoring, inflation, and project management)
  - ➢ contingency plans

15

The application process is most likely to be slowed by either insufficient information being provided with the application, or during the consultation process where the concerns of Indigenous Groups have not been addressed.

We strongly recommend engaging with nations early on. We suggest that proponent's work with Indigenous Peoples early to identify and address concerns throughout the development of project plans. It can make a significant difference to our required consultation process if nations are familiar with the project and have had an opportunity to present and discuss their comments and concerns. Communities often express a desire to be involved in choosing offsetting with the proponent, not just having ideas presented to them. If possible and necessary, it is best if the Proponent can provide capacity to the communities for review. DFO has limited funding opportunities – Proponent are often more nimble at providing support.

Engage DFO early – we will review drafts and participate in meetings upon request

We emphasize that proponent focus on providing sufficient detail in the application

- providing sufficient detail for existing baseline fish and fish habitat – multi-season and multi-year baseline. DFO will ask you to go back another year to collect seasonal data.

- project design and methods of construction (i.e. dewatering methods), all temporary elements of construction such as temporary access routes.
- detailed presentation of anticipated effects to fish and fish habitat, and planned avoidance and mitigation of those effects.
    - commonly missed impacts include impacts from blasting, and sufficient groundwater/surface water interaction analysis for changes to fish habitat (from flow alterations). If modelling shows no impact, how will you validate this model? DFO often relies on expertise from Natural Resources Canada (NRCan) and ECCC to review the analysis on potential flow alterations, and its sufficiency to predict impacts to fish habitat.

Provide sufficient information in the development of a comprehensive offsetting plan. It's a relatively common pitfall to provide an offsetting concept that is not fully developed. The offsetting plan must be as complete and detailed as the project plan itself.

- Detailed design drawings should include revegetation plans.
- Offsetting objectives and success criteria are either not detailed enough or may be unachievable for the monitoring timelines provided. Success criteria should set quantitative targets (e.g., pond habitat of at least 3 m in depth to provide overwintering habitat) and be achievable in the timelines set out (e.g., a target of 8 fish species present by monitoring year 3 may not be achievable vs monitoring year 10).
- Monitoring should be linked to the objective of the offsetting, include physical and biological parameters commensurate with the objectives, with explicit consideration of scale (spatial and temporal) of benefit.
- Cost estimate should include all aspects of the offsetting plan, including project management, monitoring, consideration of inflation, contingency (usually set at 10% the total cost).
- Contingency plans –What types of adaptive management strategies will be implemented if the offsetting is lacking? What will be the plan if the offsetting fails?

Project Planning for Great Bear Gold Mine

Considerations

- Include the full scope of the Project in the application (e.g., include both temporary and permanent structures) and a detailed offsetting plan
- Review and reference (where necessary) DFO's new offsetting policy and cumulative effects position statement
  - Restoration prioritization
  - Complementary measures
- Provide Indigenous engagement records, comments and responses
- Information that is necessary to evaluate the application should be included within the application itself. Do not refer the reader to other reports, the EA, etc.

DFO's new offsetting policy prioritizes measures to offset that focus on restoring degraded fish habitat. Many mines may not propose habitat restoration as an offsetting option due to the scale of offsetting required for mining project. Given DFOs prioritization of restoration and if Indigenous communities are in favor of the restoration project, DFO may be able to value the offsetting at a greater ratio. DFO is open to discussion if an opportunity for restoration arises.

Complementary measures are actions like data collection, scientific research and public education activities related to maintaining or enhancing the conservation and protection of fish and fish habitat. In pristine areas or areas where offsetting options are limited, this may be a good option for offsetting. The policy states it may comprise up to 10% of the offsetting project, however DFO has considered adjustments to this value depending on the value and investment level of the complementary measures proposal. Some examples of accepted complementary measures programs include walleye spawning habitat mapping, research on species at risk like Lake Sturgeon, eDNA studies, community college investments in Environmental Technician programs, etc… DFO is open to discussion on potential programs and considering an adjustment in % of offsetting. Please contact DFO prior to engaging with Indigenous communities to ensure acceptability of the proposal first.

RESOURCES FOR PROPONENT

- Consult Guidelines for Projects Near Water website

Task	Link
Apply for a project *Fisheries Act* authorization	Request a review of your project near water: Step 5. Apply for project authorization (dfo-mpo.gc.ca)
Applicant Guide for a *Fisheries Act* Authorization	Applicant's Guide Supporting the "Authorizations Concerning Fish and Fish Habitat Protection Regulations" (dfo-mpo.gc.ca)
Apply for a *Species at Risk* Permit	Application for a Species at Risk Permit (dfo-mpo.gc.ca)
Applicant Guide for a permit under the *Species at Risk Act*	Guide for the completion of an application for a permit under the Species at Risk Act for listed aquatic species (dfo-mpo.gc.ca)
Create a Fisheries Offsetting Plan	Policy for applying measures to offset adverse effects on fish and fish habitat under the Fisheries Act
Using Pathways of Effects to Describe How Projects In or Near Water can Impact Fish and Fish Habitat	Pathways of Effects

RESOURCES FOR PROPONENT

Task	Link
Useful DFO Science Reports (CSAS) to Reference:	• Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada • A science-based framework for assessing the response of fisheries productivity to state of species or habitats. • A framework for assessing fisheries productivity for the Fisheries Protection Program. • Equivalency metrics for the determination of offset requirements for the Fisheries Protection Program • A review of functional monitoring methods to assess mitigation, restoration, and offsetting activities in Canada • Science Advice on the Determination of Offset Requirements for the Fisheries Protection Program • Science advice on operational guidance on functional monitoring: Surrogate metrics of fish productivity to assess the effectiveness of mitigation and offsetting measures • Assessing the Effectiveness of Habitat Offset Activities in Canada: Monitoring Design and Metrics • Literature review and considerations for effective capture and relocation of freshwater fish for in-water projects

Thank You

Environment and Climate Change Canada | Environnement et Changement climatique Canada

Listing of Tailings Impoundment Areas to Schedule 2 of the *Metal and Diamond Mining Effluent Regulations* (MDMER)

Environment and Climate Change Canada

USE OF WATER BODIES FREQUENTED BY FISH TO DEPOSIT MINE WASTE

- The Regulations can authorize the use of water bodies frequented by fish to dispose of mine waste, under certain conditions such as:
  - The development and implementation of a compensation plan to offset the loss of fish habitat
  - The submission of an irrevocable letter of credit to cover the plan's implementation costs

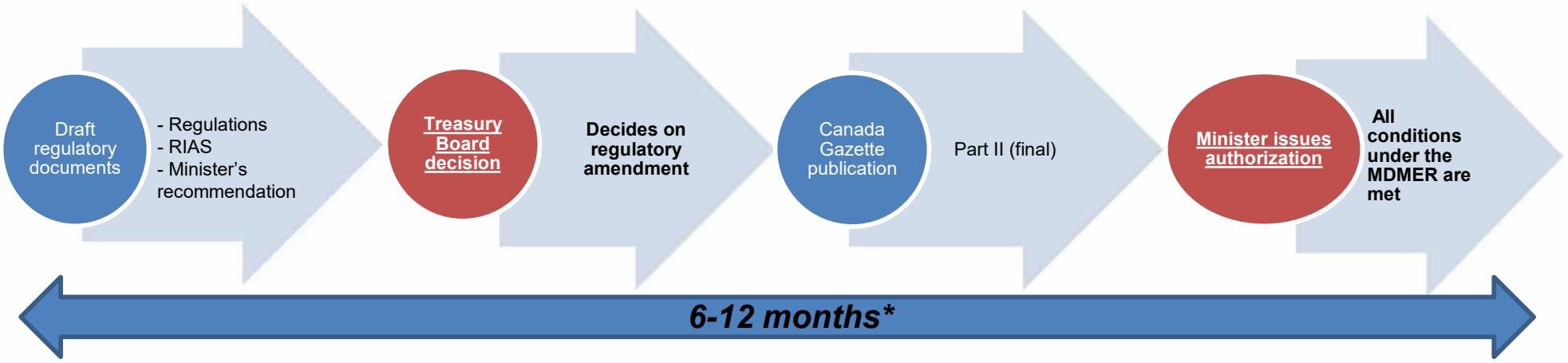
- Through an assessment of alternatives, the proponent must demonstrate that the use of water bodies frequented by fish for mine waste disposal represents the best option from an environmental, technical, economic and socio-economic perspective
  - ECCC's Guidelines for the Assessment of Alternatives for Mine Waste Disposal

- ECCC strongly encourages mine proponents to engage and consult with Indigenous groups and local communities early in the process, and throughout the development of the alternative assessment report and fish habitat compensation plan

PROCESS TO AUTHORIZE THE USE OF FISH-FREQUENTED WATERS AS TAILINGS IMPOUNDMENT AREAS (TIAs)

- Development of Assessment of Alternatives (AA) report and Fish Habitat Compensation Plan (FHCP)
- ECCC and DFO consult with Indigenous nations and the public on the AA and FHCP
- ECCC, DFO and mine proponent address any comments and concerns

Process following consultations



Timeline may be affected by Parliament summer break or Treasury Board meeting dates. Cabinet meetings resume in September.

TIPS AND BEST PRACTICES

- Proactive provision of information and ensure sufficient information
  - The Schedule 2 Amendment process may be delayed because complete information is not provided, or additional time is required for the proponent to obtain information. The information provided will be reviewed by ECCC and DFO, as applicable

- Providing the Assessment of Alternatives (AA) and FHCP early during the Impact Assessment, and in accordance with ECCC's Guidelines and DFO's policies, can reduce the time required for the Schedule 2 Amendment process

- Develop the AA and FHCP in consultation with impacted Indigenous communities or as early as possible to avoid delays, which would streamline the Schedule 2 Amendment process

- Refer to the Guide in support of the Schedule 2 Amendment

- Connect with federal authorities early to discuss your project and determine if any other considerations are needed to support the Schedule 2 process

REFERENCES/MORE INFORMATION

Metal and Diamond Mining Effluent Regulations

https://laws-lois.justice.gc.ca/eng/regulations/sor-2002-222/

Guide To The Regulatory Process For Listing Water Bodies Frequented By Fish In Schedule 2 Of The Metal And Diamond Mining Effluent Regulations

Guide To The Regulatory Process For Listing Water Bodies Frequented By Fish In Schedule 2 Of The Metal And Diamond Mining Effluent Regulations - Canada.ca

Guidelines for the assessment of alternatives for mine waste disposal

Guidelines for the assessment of alternatives for mine waste disposal - Canada.ca

For further details or assistance, reach out to ECCC's Mining and Processing Division at MDMER-REMMMD@ec.gc.ca for information on the *Metal and Diamond Mining Effluent Regulations*

Terrestrial Species at Risk Act Permitting – Great Bear Gold

Canadian Wildlife Service - Ontario Region

September 19, 2025

When is a SARA permit required?

Permits are required under s.73(3) of the *Species at Risk Act* (SARA) by any person engaging in an activity affecting a species listed on Schedule 1 of SARA as Extirpated, Endangered, or Threatened, that would contravene any SARA prohibitions.

What are the SARA prohibitions?

Automatically upon listing:

The following general prohibitions automatically apply for terrestrial species upon listing under SARA on federal lands. *For Migratory Birds, these prohibitions apply everywhere in Canada.*

- Individuals - under s.32 of SARA, it is prohibited to:
  - kill, harm, harass, capture or take an individual of listed species; or
  - possess, collect, buy, sell or trade an individual of a listed species.
- Residences - Under s.33 of SARA, it is prohibited to:
  - damage or destroy the residence of one or more individuals of a listed species.

Through an order or regulation:

- Critical Habitat
  - SARA also provides protection against the destruction of any part of a listed species' critical habitat, when an order is in place under s.58 (federal lands) or s.61 (non-federal lands).
- Additional SARA Prohibitions
  - Additional specific prohibitions may be in force as a result of an Emergency or Protection Order issued under s.34, 61, or 80 of SARA, and regulations made under s.53, 59, or 71 of SARA – such orders and regulations are published on the SARA public registry.

When can a SARA permit be issued?

A permit may be issued if:

a) the activity is scientific research relating to the conservation of the species and conducted by qualified persons;

b) the activity benefits the species or is required to enhance its chance of survival in the wild; or

c) affecting the species is incidental to the carrying out of the activity.

All three pre-conditions under subsection 73(3) of SARA must be met:

a) all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted;

b) all feasible mitigation measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and

c) the activity will not jeopardize the survival or recovery of the species.

When can a SARA permit be issued for a SARA-listed Migratory Bird?

- A SARA permit cannot be issued for an activity that would violate a prohibition under the MBCA (e.g., destruction of an active nest), unless there is a mechanism to also permit it under the MBCA.

- For some SARA-listed migratory birds, the SARA s.34 residence prohibition will protect the nests and/or roosts sites that are not active but are re-used in subsequent years (for example, Chimney Swift). In these cases, even if work is undertaken outside of the breeding season, a SARA permit would be required for damage or destruction of residence.

- In addition, a SARA permit may be required for a SARA-listed migratory bird (for example, Barn Swallow) if its residences include both occupied and unoccupied nests and cannot be avoided during the active season.

- For SARA-listed migratory birds that do not have year-round residence protections, or that do not have both occupied and unoccupied nests protected, in general activities undertaken outside of the active season would avoid violating the SARA and MBCA prohibitions.

SAR Application Process

1. Proponent collects required information (through IA process) including surveys to obtain baseline information for all SARA-listed species that may be impacted by the proposed activity.
2. Proponent submits a permit application to ECCC.
   - Species at Risk Act Permit System
   - More information can be found here on what is required: Guidelines for permitting under Section 73 of Species at Risk Act
3. ECCC begins review of the application.
4. ECCC issues Information Requests (IRs) as needed.
5. Proponent responds to IRs.
6. Consultations under SARA s.73(4) and (5) may occur.
7. Minister of Environment and Climate Change Canada either issues a permit or notifies the applicant that the permit has been refused.

SARA Application Review Process: Timelines

- ECCC encourages proponents to submit clear and complete permit applications at least 4 – 6 months prior to the anticipated start of project activities that require a SARA permit.
  - See Section 4.2 of the Guidelines and the Permits Authorizing an Activity Affecting Listed Wildlife Species Regulations for more information. Note specifically the 90-day time limit set out in s.3(1) may be suspended or may not be applicable under some circumstances, such as:
    - s.3(2) – The time limit is suspended if the application is incomplete.
    - s.3(3)(b) – A decision is required under another act of parliament e.g., Impact Assessment Act.

Supporting an Efficient Application Review

- ✓ Integrate considerations related to species at risk into project planning from the start, including the implementation of the mitigation hierarchy (e.g., avoid, minimize, restore, offset).
- ✓ Ensure that detailed descriptions and evidence are provided in the application to address the three SARA s.73(3) preconditions.
- ✓ Ensure sufficient detail provided in permit application
  - Collect species-specific data to:
    - Inform a proponent's understanding of how project activities could impact the individuals and residences of Species at Risk, and
    - Determine proposed mitigation measures to minimize these impacts.
  - Data collection should occur during representative time periods for the species.
  - Ensure a Qualified Person is supporting the application, including the development of appropriate mitigation measures
- ✓ Contact wildlifeontario@ec.gc.ca with any questions related to the project and/or how SARA permitting may apply, in advance of submitting a SARA permit application or during the permit application process.

Terrestrial SARA Permit – Great Bear Gold

- Great Bear Gold Project
  - No federal land.
  - No SARA orders for additional protection of individuals, residences or critical habitat are in place at this time.
- As such, for this project, SARA prohibitions related to terrestrial species at risk apply only to individuals and residences of species that are both migratory birds identified under the MBCA and which are listed under Schedule 1 of SARA.
- Additional information is required to understand whether or not a SARA permit is required such as:
  - confirmation of whether residences for Chimney Swift, Bank Swallow, and/or Barn Swallow are located within the final project construction disturbance areas;
  - effect pathways between project activities and impacts to individuals or residences of these species; and
  - planned mitigation measures to avoid or minimize impacts.

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [20]	Hybrid [ ]
Location:	Virtual		
Time:	10:30 AM – 12:30 AM		
Date:	Friday September 19th, 2025		
Executive Summary:	Great Bear Gold Mine Permitting Coordination Kick-Off meeting with the IAAC/DFO/ECCC/TC. Each regulator and GBR sharing a presentation on their perspective and knowledge. GBR sharing an overall project summary presentation, specifying permits required to do project activities anticipated.		
Key Actions:	- GBR to follow up with a more detailed plan for construction for the regulators as requested to enable development of a federal detailed permitting plan		

2. **Attendance**

GBR:

- Connor Devereaux
- Ashley Moncrief
- Ryan Shaw
- Aaron MacDonell

WSP:

- Sheila Daniels
- Heather Lindsay

SLR:

- Fiona Christiansen

IAAC:

- Maija Gailis
- Nicola Cook
- Brian Giles
- Deitrich MacRae Maahs
- Kiera Smith

- Karen Prince

DFO:

- Melanie Campbell
- Clayton James
- Manon Simard

ECCC:

- Sheryl Lusk
- Donna Dafoe
- Thomas Fox
- Carolyn Hann
- Jonah Lehman

TC:

- Jeremy Craigs
- Joey Zimmer
- Sarah O'Keefe

HC:

- Joel Kaushansky

ISC:

- Doris Odjick
- Katherine Hess
- Norah Kielland

NRCan:

- Shelley Ball

3. Notes:

- Maija giving an overview of permitting, general information.

4. Overview of Permitting Coordination Slide Deck (Maija Gailis)

- Maija sharing a general presentation on coordination for permits.
- Introduced crown consultation coordinator to streamline consultations amongst federal family
- Purpose, more efficiency needed in the regulatory system.
- Canadian Impact Assessment Registry shows status of permits
- 2 year target once the first comprehensive application has been submitted

5. GBR/WSP Overview Presentation (Sheila, Ashley, Connor):
- Sheila shared basic project information
- Outlined project overview figure and described each feature.
- Outlined project description, including Brine/reject solution, plans for underground backfill paste, water management through the project phases.
- Schedule 2 in draft – facilitating early review and feedback. Intent to then update the plan and include with the Impact statement.
- Fisheries map overview of streams throughout the project.
- Discussed navigable water in Chukuni and in water infrastructure
- Approvals: Closure Plan, Air ECA, ECA-ISW, Waste ECA (potential), Overall Benefit Permit (SAR), PTTW, Aggregate, Permit to Cut, Scientific collection permit, Work Permits, Land use permits.
- Ashley covering objectives for consultation and engagement on the project.
    - Nav waters, Fish and Fish Habitat, and Mine waste alternatives.
    - Outlined when consultation started and previous work that has occurred
- Sheila breaking down the Impact Statement submissions.
- Connor outlining the overall project approvals and construction timeline.
    - Highlighting IS submissions in the near-term as well as draft technical supporting documents.

6. DFO (Melanie Campbell)
- Edmonton office is mining/oil gas mainly expertise, so that's why we often deal with similar people from Alberta, not a closer province.
- Several items that could pause the clock, decision on IA could pause the clock, etc.
- Patience with the "timeline"
- An IA needs to be approved before a fisheries act authroization decision can be made.
- Failure to comply with conditions under authorization is an offense.
- Financial guarantee after consultation. Cost estimates can be included at the start but not required.
- Outlined tips to avoid delays
- Focus on cumulative effects of carrying out the project. DFO CEA position statement.
- DFO confirmed that the communities to be scoped in as part of this permitting process would align with IAAC's previous work for IA
- DFO noted prioritization on restoration projects as compensation measure
- Application should include consultation and engagement (formal comment and response summary table)

7. ECCC (Sheryl Lusk)
- Tips and best practices.

- Post IA approval decision assume 6-8 months for Schedule 2 listing
- Refer to the Guide in support of the schedule 2 amendment.
- Important to engage with mining and processes division.
- Confirmed ECCC will review draft plans before IS submittal

8. ECCC Carolyn Hann SAR Permit

- Unlikely for GBR based on information shared to date however SARA prohibitions would apply for migratory birds.
- Mentioned Bank swallow, Chimney swift and or Barn swallow. May be both SAR and Migratory bird.

9. TC presentation. (Joey Zimmer)

- No official determination on navigability at the moment. Internally aiming to wrap up report in October for senior management to review
- Acknowledged receipt of info GBR as provided to date, thank you for the information, still in review.
- Regional perspective, Govern in Council exemption doesn't appear to be required for unnamed water courses (unlikely).
    - The above assumption is valid for Dixie creek as well. (Sheila asked directly for confirmation.)
- The decision on navigability assessments may not be available until December.
- Sheila, requesting guidance on Minor vs. Major Works
    - This will be determined once detailed engineering progresses on what permits will be required for Chukuni River infrastructure. Public resolution avenue to be reviewed.

10. In Closing

- Appreciate the early feedback and willingness to review the project in advance of permitting to keep the permitting process as smooth as possible.
- GBR to follow up with a more detailed plan for construction for the regulators as requested to enable development of a federal detailed permitting plan.
-

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [11]	Hybrid [ ]
Location:	Virtual		
Time:	10-10:30 AM		
Date:	September 26th, 2025		
Executive Summary:	GBR Touch base with IAAC on path forward for permitting and approvals.		
Key Actions:	- **Action:** Provide ETR with review summary and how we plan to address them to aid their review of the Dec plan. - **Action:** File the memo on updates to MeHg plan/field study, next week. Meeting 2 weeks after with FAs - **Action:** Share FHOCP with IAAC - **Action:** GBR to share feedback and explanations regarding the ETR panel.		

Attendance

IAAC

Ian Martin – IAAC
Kiera Smith – IAAC
Valerie Williams – IAAC
Dietrich MacRae-Maahs – IAAC
Carla De Aquino – IAAC

GBR

Luke Crosby – GBR
Aaron Macdonell – GBR
Connor Devereaux – GBR
Luke Crosby – GBR
Ryan Shaw - GBR
Fiona Christiansen – GBR (SLR)

Meeting Notes:

- IAAC requested a copy of the FHOCP submitted to DFO and offered support if needed; GBR reported no issues.
- IAAC asked whether ANA had reached out to GBR; GBR noted there has been no contact and confirmed continued engagement on provincial permitting.

- GBR proposed meeting next week unless FAs require two weeks, offered to walk through updates and the far-field monitoring program, and committed to filing the memo next week; acknowledged that incorporating additional comments into the December submittal would be challenging.
- IAAC indicated a likely two-week turnaround (mid-October) and asked for the timeline requirements; GBR agreed to prioritize delivery of the updated memo.
- IAAC confirmed the ETR is being formed to review the mercury study plan, targeted for mid-October, and asked whether GBR has an updated plan or methodology—requesting any materials that reflect changes since the December 2024 plan.
- GBR explained the focus on predictive modelling, with potential to accelerate timelines, and noted new downstream monitoring and modelling data collection; highlighted that the long formation time for the ETR constrains incorporation of comments before December due to strict submission timelines.
- IAAC suggested providing the ETR with already-received comments and a brief description of how each will be addressed, focusing on overall changes; GBR agreed.
- Parties aligned on a mid-October turnaround (2–3 weeks), emphasizing high-level changes rather than deep technical detail; a concordance table mapping comments to GBR's adaptations will be prepared.
- GBR asked about ETR composition and flagged concerns about one expert due to perceived advocacy; IAAC confirmed the experts are not from Grassy Narrows; GBR will reiterate feedback/objections on panel selections.
- IAAC aims to assemble an ETR reference package and asked whether MNO and MECP provided comments that should be included; GBR can share MECP comments on the 2024 mercury study design but has not received MECP comments on the water predictive model.
- IAAC asked if the IS can be posted as entries arrive in the registry; GBR agreed.
- IAAC will re-notify FN communities to encourage batch-by-batch feedback prior to full submission; once the final batch is sent, the conformity period begins.
- GBR noted the ANA-funded Land Use study has not been received; timelines from ANA suggest up to 10 years in general but potentially 6–8 months (ending late November).
- IAAC advised GBR can proceed with submission and later incorporate supplemental memos/amendments if needed, aiming to use any late submissions where feasible; parties discussed how to handle "contrary" information.
- IAAC explained that validation of a claimed sacred site would occur within the nation; while IAAC would not direct relocation of facilities, GBR would need to consider implications.
- IAAC may seek further advice on competing territorial claims, noting internal Government resources (e.g., CERNAC) and a practice of weighing information from all parties.
- GBR flagged the likelihood of heightened activism and a challenging process; IAAC emphasized the value of specific, validated claims (preferred sites, level of detail, location relative to the LCA and project footprint).
- GBR warned of potential last-minute information dumps and earlier experiences of perceived unfair treatment by regulators; IAAC noted there are fixed deadlines and limits to what the agency can do within those timelines.

KINROSS
Great Bear

August 2025

Great Bear Project

Cumulative Effects

- Methodology

- Paragraph 22(1)(a) of the *Impact Assessment Act* specifies that impact assessments must consider effects that are likely to be caused by the designated project
- Five steps are needed:
  1. *Scoping*
  2. *Analysis*
  3. *Mitigation*
  4. *Cumulative Effects*
  5. *Follow-up*

— These effects include cumulative effects that are likely to result from a designated project in combination with other physical activities that:

1. *have been carried out OR*
2. *will be carried out.*

02.

Scoping: Activities that have been carried out

GREAT BEAR PROJECT

— Existing (baseline) environmental conditions reflect the cumulative effects of past and present physical activities *("have been carried out")*

— Existing conditions are documented in the baseline reports that will be appended to the Impact Statement

— These effects are accounted for within the residual Project effects assessment.

02.

Scoping: Activities that have been carried out

GREAT BEAR PROJECT

- For the Great Bear Project, the baseline conditions reflect the cumulative effects of past developments, including these activities / developments within the Property boundary:
  - *Forestry*
    - Past and current forest management
  - *Mineral exploration*
    - By Great Bear Resources and historically
  - *Aggregate resource extraction*
    - Past and current, commercial and government sand and gravel pits
  - *Major infrastructure development*
    - Regional Hydro One Networks 115 kV transmission line
    - (Highway 105 and regional Enbridge natural gas pipeline adjacent)
  - *Harvesting*
    - Trapping, hunting potentially fishing

02.

Scoping: Activities that will be carried out

GREAT BEAR PROJECT

- Future activities that will be carried out that may overlap with adverse effects from the Project are being identified through the following sources of information:
  - *IAAC Registry*
  - *Provincial Environmental Assessment webpage*
  - *Provincial Environmental Approval Registry*
  - *Provincial Forestry Management Plans*
  - *Ontario Highways Programs*
  - *Ontario Mining Association*
  - *Aggregate Pit and Quarry Registry*
  - *Hydro One Networks Inc.*
- The scale of the activities is considered in identifying overlapping activities
- Developments within the municipal boundaries of Red Lake and Ear Falls were generally not tabulated, unless the overlap was considered reasonable

- Cumulative effects assessment is to consider those valued components for which residual adverse effects are predicted after consideration of mitigation measures
- As the federal impact assessment process is intended to prevent or mitigate significant adverse effects within federal jurisdiction, the valued components for the Project were characterized as:
  - *Valued components within federal jurisdiction: federal valued components (fVCs) as guided by key issues identified by IAAC (2024)*
  - *Valued components that provide a pathway for direct or indirect effects to fVCs: pathway components (pVCs).*

02.

Scoping: Identifying Potential Valued Components for Screening

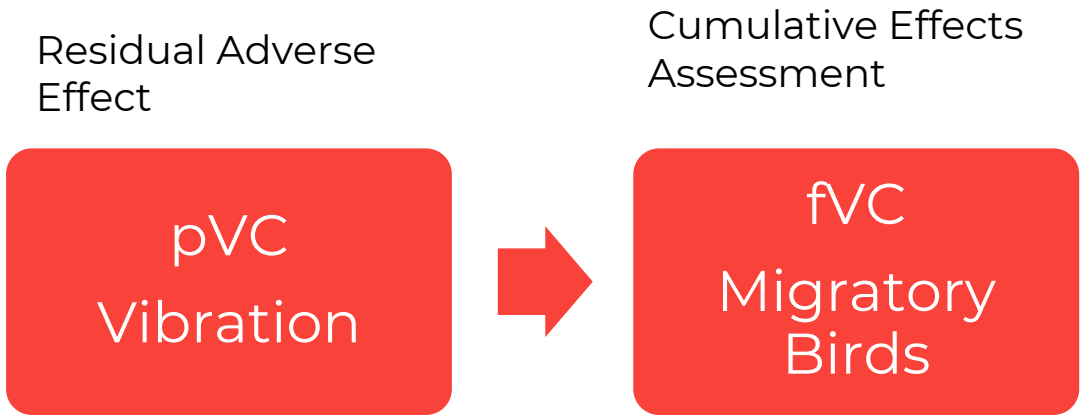
GREAT BEAR PROJECT

- The cumulative effects assessment will be completed for fVCs for which residual adverse effects are predicted
- This will include consideration of relevant pVCs, where there is a pathway that has predicted a residual change in the pVCs that affects the fVC
- Cumulative effects to pVCs themselves will not be assessed

1. Example (pVC with direct linkage to fVC):

— There is a potential direct pathway between noise (pVC) and effects to migratory birds (fVC)

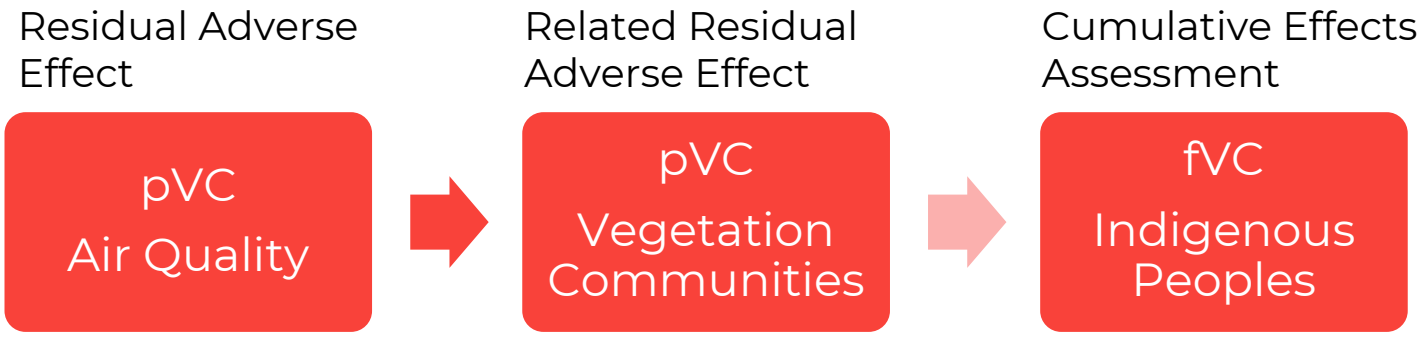
— If there were a residual (non-mitigated) adverse effect for noise, this would be considered in the assessment of cumulative effects for the fVC (migratory birds)



2. Example (pVC with indirect linkage to fVC):

— There is a potential indirect pathway between dustfall (air quality; pVC), through vegetation communities (pVC) to berries picked by Indigenous peoples (fVC; Traditional land and resource use indicator)

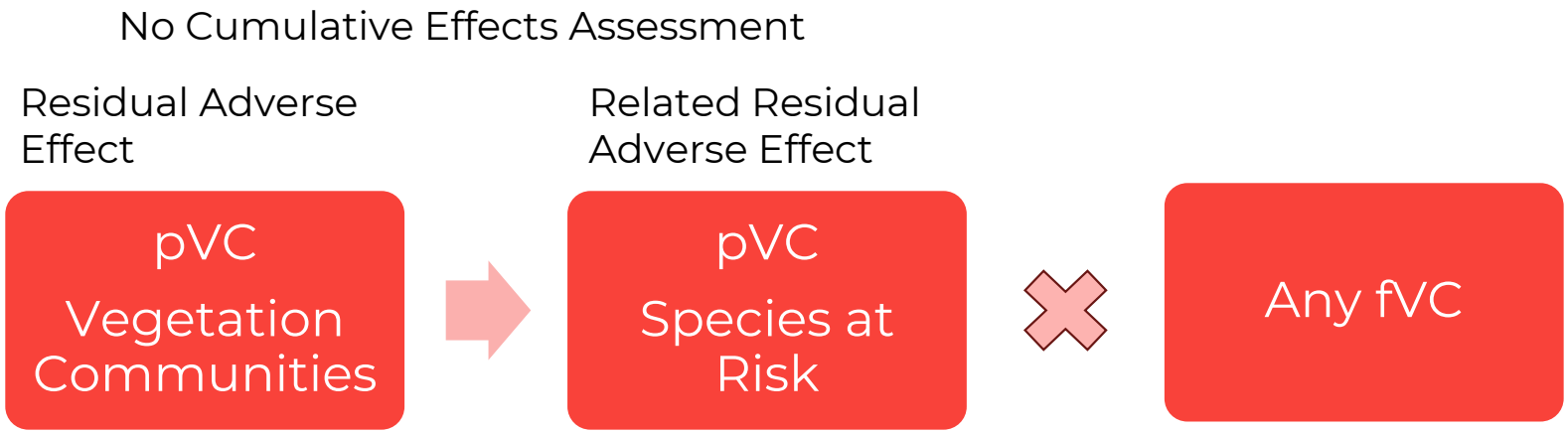
— If there is a residual (non-mitigated) adverse effect for vegetation communities related to air quality, which has a pathway to the fVC (Indigenous peoples), this would be considered in the assessment of cumulative effects for the fVC (Indigenous Peoples)



3. Example (pVC with no linkages to fVCs):

— There is a potential direct pathway between vegetation communities (pVC) and bats, a Species at Risk (pVC), but no linkage to a fVC

— If there were a residual (non-mitigated) adverse effect for bats (a pVC), but no pathway to any fVC, the adverse effects to bats would not be considered in the cumulative effects assessment



- For there to be a potential cumulative effect, the residual effect of the identified physical activity would have to overlap spatially and temporally with the residual effects of another project
- The spatial boundaries for the cumulative effects assessment for each valued component with residual effects are consistent with the analysis of effects:
  - *Project area (PA): the Project footprint including all temporary and permanent areas associated with the mine site development, as well as an outside buffer of approximately 250 m, in order to allow for flexibility for design optimizations prior to construction and over the mine life.*
  - *Local study area (LSA): extends beyond the PA and is intended to capture potential direct effects from the Project.*
  - *Regional study area (RSA): encompasses and extends beyond the PA and LSA and provides a regional context in the assessment of potential Project effects.*

- The temporal boundaries are the same as used for analysis of effects:
  - *Construction phase:*
    - Year -3 to Year -1, 3 years in length
  - *Operations phase:*
    - Year 1 to Year 26, 26 years in length
  - *Decommissioning and closure (closure) phase:*
    - Active closure period: Y
      - Year 27 to Year 29, 3 years in length
    - Passive closure period:
      - Year 30, approximately one additional year / being confirmed
    - Final closure period (removal of water management infrastructure):
      - Year 31, < 1 year in length

- Assessment of cumulative effects for fVCs with an adverse residual effect in consideration of adverse residual effects for pVCs with pathways to the fVCs
- Analyses is ongoing and has not been completed
- fVC Fish and Fish Habitat
  - *No residual adverse effects after mitigation currently predicted for any criteria based on completed analyses and implementation of an approved fish compensation and offsetting plan*
    - Fish habitat
    - Fish communities
    - Fish health and mortality

- fVC Migratory Birds
  - *Residual adverse effects after mitigation may be predicted for certain identified criteria based on ongoing analyses*
    - Abundance of habitat
    - Connectivity and quality of habitat
    - Density and populations
    - Risk of mortality
    - Migratory bird Species at Risk
- fVC Indigenous Peoples
  - *Residual adverse effects after mitigation may be predicted for certain identified criteria*
    - Community services and infrastructure
    - Current use of lands and resources for Traditional purposes
    - Physical, cultural heritage, structures, sites or things
    - Community well-being
    - Health

- If adverse cumulative effects are identified for a fVC, an assessment will be made of technically and economically feasible mitigation measures that could be applied to reduce the effect, such as:
  - *Elimination, reduction or control*
  - *Offset for damage through replacement, restoration or compensation*
- If the effect is not within the control of Great Bear Resources:
  - *Parties with authority will be identified*
  - *Known commitments by others will be summarized*

04.

Mitigation: Significance determination

GREAT BEAR PROJECT

- If adverse residual (after mitigation) cumulative effects are identified to value components under federal jurisdiction, significance is assessed in a structured manner, in consideration of:
  - *Ecological and social context*
  - *Magnitude*
  - *Geographic extent*
  - *Duration*
  - *Frequency*
  - *Reversibility*
  - *Timing*

- A predicted adverse cumulative effect is not considered to be significant if it is of:
  - *Low magnitude and / or extent or*
  - *Short term duration including residual effects (i.e., the effect itself is short term) or*
  - *Is likely to occur very infrequently (or not at all) with little potential for long-term effects.*
- In order for a residual adverse, cumulative effect to a fVC to be determined to be significant, the following criteria must both be satisfied:
  - *Level II or III rating is attained for ecological and / or social context and*
  - *A Level II or III rating is attained for all of the attributes involving magnitude, extent, duration, frequency, reversibility and timing as applicable.*

- The Impact Statement includes a section intended to meet the requirement of Section 17 of the TISG
- If needed, follow-program(s) and / or monitoring related to identified cumulative effects for the Project, will be included in the Impact Statement
- Although not expected to be required, commitment to an adaptive management may be made related to cumulative effects if:
  - *There is high uncertainty around the effectiveness of mitigation measures or predicted effects.*
  - *There is a need for or benefit to reducing uncertainties through an Adaptive Management Plan.*
  - *Adaptive management is technically feasible.*

THANK YOU

KINROSS Great Bear

IAAC – IS and Permitting update

Great Bear Resources (GBR) is advancing the Impact Statement (IS) for the Great Bear Project through a phased submission process to facilitate timely review by IAAC, federal departments, and Indigenous communities. This approach allows for early engagement on priority technical topics while maintaining alignment with permitting requirements and project planning.

The first phase of the IS was submitted to the Canadian Impact Assessment Registry portal on September 19, 2025. Two subsequent phases are scheduled for December 2025 and March 2026, with a final consolidated IS available following completion of the phased filings.

Submission 1 consists of the following Sections:

- 1 - Introduction and Overview
- 2 - Environmental Setting
- 4 - Alternatives Assessment
- 5 - Project Description and Activities
- 19 - Environmental Approval Framework and Requirements

Submission 2 will consist of the following Sections:

- 6 - Effects Assessment Methodology
- 7- Analysis of Changes to the Environment
- 8- Analysis of Changes to Fish and Fish Habitat
- 9- Analysis of Changes to Migratory Birds
- 16 - Effects of Potential Accidents and Malfunctions
- 17 - Effects of the Environment on the Project
- 18 - Summary of Benefits.

In addition, Submission 2 will consist of the following appendices:

- D-1 Air Quality Baseline Report
- D-2 Air Quality Modelling Report
- D-3 Green House Gas Assessment
- E-1 Sound Baseline Report (Leaves On)
- E-2 Sound Baseline Report (Leaves Off)
- E-3 Noise Modelling Report
- F Blasting Assessment Report
- G Ambient Light Baseline and Predictive Light Assessment Report
- H-1 Hydrogeology Baseline Report
- H-2 Hydrogeology Modelling Report
- I-1 Hydrology Baseline Report
- I-2 Mine Site Water Balance Report
- I-3 Receiver Water Balance Report
- J Geochemistry Summary Report
- K-1 Water Quality Baseline Report
- K-2 Mine Site Water Quality Report for Mine Operations and Closure
- K-3 Receiver Water Quality Modelling Report
- L-1 Aquatic Resources Baseline Report
- M-1 Terrestrial Resources Baseline Report
- M-2 Terrestrial Assessment Methodology and Modelling
- O-1 Socioeconomic Baseline Report
- O-2 Economic Modelling Results
- O-3 Viewshed Analysis
- P-1 Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment
- P-2 Cultural Heritage Evaluation Report
- Q-1 Terrestrial Archaeological Assessment
- Q-2 Marine Archaeological Assessment
- R Draft Mine Waste Management Alternatives Assessment
- U-1 Tailings Inundation Study
- U-2 Spill and Environmental Emergency Response Plan
- V Navigable Waters Assessment Information
- W-1 Net Zero Plan
- W-2 BAT/BEP Determination
- W-3 Climate Dataset
- W-4 Climate Risk and Resilience Report

- L-2 Draft Fisheries Act Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan
- W-5 Climate Roadmap.

Submission 3 will consist of the following Sections:

- 3 Participation and Engagement
- 10 Analysis of Changes to Indigenous Peoples – Lac Seul First Nation
- 11 Analysis of Changes to Indigenous Peoples – Wabauskang First Nation
- 12 Analysis of Changes to Indigenous Peoples – ANA
- 13 Analysis of Changes to Indigenous Peoples – NWOMC
- 14 Analysis of Changes to Indigenous Peoples in Red Lake and Ear Falls
- 15 Cumulative Effects Assessment
- 20 Environmental Management and Follow-Up
- 21 Conclusions.

In addition, Submission 3 will consist of the following appendices:

- A-1 Tailored Impact Statement Guidelines
- B Commitments Table
- C Consultation and Engagement Materials
- N-1 Human Health and Ecological Risk Assessment
- N-2 Health Impact Assessment
- P-3 Draft Cultural Heritage Impact Assessment Report
- S Draft Regulatory Closure Plan
- T Mercury Bioaccumulation Study

Section 22 Authors, a Preface and a Concordance Table to the TISGs will be included in each submission updated to reflect the submitted documents and information contained within each filing.

Process Timeline

Information Request (IR) phase: anticipated 6 months

IAAC decision-making phase: anticipated 6 months

Target IAAC decision: May 2027

GBR is requesting a concurrent federal and provincial permitting approach to align with the IAAC approval timeline.

Federal Permitting

Fisheries Act: Fisheries Act Authorization(s) & MDMER Schedule 2 Listing required for the Project. Draft technical documents have been shared with DFO, ECCC, and IAAC to initiate early review and alignment.

Canadian Navigable Waters Act (CNWA): A navigability determination from Transport Canada is expected in December 2025. Based on current information, no GIC exemption is anticipated. CNWA Major Works approvals may be required for the intake and outfall structures; GBR will keep TC informed as design work progresses.

Permitting Coordination: GBR continues to work with IAAC and federal agencies to provide sufficient information, ensure meaningful consultation, and maintain regulatory timelines. The next step is to align construction schedules with permitting pathways to establish a critical path.

Provincial Permitting

As Ontario modernizes its regulatory framework, GBR is evaluating the provincial permitting path forward. A detailed provincial permitting schedule aligned with construction timelines and the federal permitting plan will be provided to IAAC once finalized.

GBR remains committed to advancing the Great Bear Project in a transparent, coordinated manner that meets both federal and provincial requirements. We will continue to work closely with IAAC, regulators, and Indigenous Nations to support timely review and approval of the Project.

KINROSS Great Bear

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [25]	Hybrid [ ]
Location:	Virtual		
Time:	1-2PM		
Date:	10/23/2025		
Executive Summary:	The meeting reviewed Kinross' updated methylmercury modeling approach, which incorporates site-specific sulfate and mercury data from fall 2025 downstream sampling to improve long-term bioaccumulation predictions. Consultants outlined model refinements including new lake-specific inputs, and results from the fall 2025 water, sediment, porewater, and fish sampling program. WSP summarized supporting field programs and fish sampling, with regulators encouraging future archiving of fish tissues and potential summer sampling to reduce uncertainty. Next steps include refining the model, issuing a revised Mercury Study Plan, inviting written follow-up questions, and establishing technical working groups with regulators and Indigenous representatives in the new year.		
Key Actions:	1 , Incorporate fall 2025 data into water module refinements. 2 , Conduct model sensitivity analysis and summarize uncertainty. 3 , Develop draft revised Mercury Study Plan for regulator review. 4 , Explore options for fish tissue archiving in future programs. 5 , Consider establishing technical working groups with MECP, ECCC, NRCan, and First Nations.		

2. **Attendance**

- Ryan Shaw - GBR
- Dietrich MacRae-Maahs — IAAC / AEIC
- Kiera Smith — IAAC / AEIC
- Wai Lam — MECP
- Christine Plourde — WSP
- Jill LaPorte — WSP
- David Leeder — Hutchinson
- Jacinth Gillam-Price — MECP
- Sheryl Lusk — ECCC
- Nadine Parker — ECCC
- Saloni Clerk — MECP
- Nick Colella — MECP
- Natasa Tomas — MECP
- Shelley Ball — (no organization shown)
- Michelle Palmer — MECP
- Aaron MacDonell - GBR

- Richard Goulet — (no organization shown)
- Karl Bresee — WSP
- Sheila Daniel — WSP
- Paula Spencer — MECP
- Bogdan Hlevca — MECP
- Rosemary Ash — MECP
- Fiona Christiansen — SLR
- Jane Kirk — ECCC

Agenda:

- Hutchinson Overview of Kinross' updated methylmercury modeling approach.
- WSP Summary of fall 2025 downstream monitoring program.
- Discussion of responses and questions from regulators.

Overview – Kinross and Consultant Team

- Kinross' Environmental Director introduced the team (Kinross, WSP, Hutchinson).
- Connor unavailable (attending meeting in Lac Seul).
- Hutchinson (consultant) presented on model refinements.

Updated Modeling Approach - David presenting his slide deck.

Purpose: Improve methylmercury prediction by adding site-specific sulfate and mercury data from fall 2025 sampling.

Model Overview

- **Water module:** steady-state empirical mass balance model linking sulfate loading from effluent to potential methylmercury available for bioaccumulation.
- Based on annual sulfate loading to downstream watercourses — appropriate for long-term bioaccumulation trends.
- **Key update:** inclusion of lake-specific sulfate and mercury fluxes based on sediment porewater gradients.
- **Model extent:** from project site downstream to below the confluence of the English River (~27 model cells).
- **New data:** incorporated from 7 downstream lakes—Packwash, Chukuni River, Camping, Wren, Oak, Maynard, Ball, and Indian Lakes

Fall 2025 Sampling Program

- Media collected: surface water, sediment, and sediment porewater.
- Parameters measured: total and methylmercury (bulk & dissolved), sulfate/sulfide, TOC/DOC, metals, major ions, and field parameters (DO, temperature, pH, etc.).
- Most lakes were mixed (post-fall turnover); a few retained stratification.
- Sediment cores taken from shallow (epilimnetic) and deep (hypolimnetic) zones.
- Fine-grained sediments prioritized; coarse sediments not conducive to methylation.

- Porewater extracted for mercury and sulfate analysis.

Key Findings / Next Steps

- Some unexpected water chemistry influences from the English and Wabigoon Rivers.
- New site-specific data will improve estimates of methylmercury production potential.
- Data will supplement literature values to establish realistic sulfate and mercury gradients.
- Plan to refine the water module and conduct sensitivity analyses to test parameter influence.

Questions & Discussion

Model Validation

- Regulators asked about model calibration and validation.
- Response:
    - Direct validation of water methylmercury levels is challenging (predicted values below detection limits).
    - Will rely on sensitivity analyses to identify uncertainty.
    - Validation more feasible for fish tissue concentrations through ongoing bioaccumulation and risk modules.
    - Suggestion: form technical working groups with regulators (MECP, ECCC, NRCan, First Nations) to review model structure and assumptions collaboratively.

Wetlands

- Wetlands were not included in sampling because they are not direct effluent receivers.

Model Conservatism

- Model intentionally highly conservative: assumes no attenuation or oxidation effects, ensuring protective predictions.

Long-Term Methylmercury Accumulation

- Model considers existing background conditions (not a “clean start”).
- Flux calculations include additive project contributions and retention/loss factors.

WSP Presentation – Field Programs & Fish Sampling

- WSP summarized baseline and downstream field programs supporting methylmercury modeling and ecological risk assessment.
- Fish species targeted: lake whitefish, northern pike, yellow perch (10 per species per lake target).
- Locations: on-site lakes, Pakwash Lake, and Chukuni River.
- Fall sampling had mixed success due to late season; whitefish most successful.
- Samples analyzed for total and methylmercury; carbon and nitrogen stable isotopes added this year.

- Discussion raised regarding archiving of fish tissues for future isotope analysis; currently not standard practice due to freezer/storage limits.
    - Regulators emphasized archiving as best practice and a major improvement opportunity.
    - Commitment to explore feasibility for future campaigns.

Further Technical Discussion

- Questions on sediment core depth, temporal resolution, and possible replication in summer (when methylation peaks).
- Cores divided into biologically active (top 2–5 cm) and deeper "legacy" sediment for reference.
- Current program aims to reduce uncertainty, not yet a detailed paleo or trend study.
- Long-term monitoring design (potential isotopes, additional metrics) will follow after updated model results define risk magnitude.
- Revised Mercury Study Plan forthcoming — significant updates from the earlier 2025 version to align with new model outputs and regulator feedback.

Additional Technical Clarifications

- Questions on porewater flux confidence and sediment-water mercury exchange — acknowledged limitations but approach deemed adequate for model purpose.
- Suspended solids and sulfate transport discussed:
    - Sulfate modeled as conservative (persistent, mobile).
    - Solids and mercury adsorption expected to return to background within tens of metres from outfall.
- Effluent and sulfate load will be managed adaptively under regulatory oversight based on model predictions and monitoring outcomes.

Closing Discussion & Next Steps

- Plan to reissue Mercury Study Plan with new model data and sensitivity results.
- Regulators and participants invited to provide written follow-up questions via IACOMIS.
- Potential follow-up meetings and technical working group sessions anticipated in the new year.

Q & A Summary

Question	Response / Discussion Summary
1. How will the model be validated?	Direct validation of methylmercury in water is difficult because predicted concentrations are below detection limits. Sensitivity analyses will be used to assess model behaviour. Validation is more feasible for fish tissue results. A technical working group (regulators and Indigenous representatives) is proposed to review assumptions and methods.
2. Why weren't wetlands included in	Wetlands were excluded because they do not directly receive effluent and are not expected to experience measurable sulfate or methylmercury loading.

the sampling program?	
3. How conservative is the model?	The model is intentionally conservative. It assumes no natural attenuation, oxidation, or dilution—providing protective, upper-bound predictions of methylmercury production.
4. Does the model account for existing mercury levels?	Yes. Background conditions are incorporated. The model estimates incremental project contributions to the existing methylmercury pool rather than assuming a "clean start."
5. How were sediment cores collected and analyzed?	Cores were divided into biologically active upper layers (2–5 cm) and deeper legacy layers. The focus is on reducing uncertainty and informing near-term model updates rather than reconstructing full historical trends.
6. Why was sampling done in fall instead of during summer methylation peaks?	Fall sampling supports access and consistency with current monitoring cycles. Data reflect post-turnover chemistry. Future programs may include summer sampling to capture peak methylation conditions.
7. How confident are the porewater flux and sediment-water exchange estimates?	Confidence is moderate. The approach provides reasonable estimates for model input but recognizes uncertainty. Additional field data could improve flux characterization over time.
8. How are sulfate and mercury transport represented in the model?	Sulfate is treated as a conservative tracer, assumed to move downstream without degradation. Mercury is largely particle-bound; concentrations typically return to background within tens of metres of the outfall.
9. How will sulfate and mercury loadings be managed long-term?	Loadings will be managed adaptively under regulatory oversight. Effluent and sulfate discharge limits may be refined based on future monitoring and model verification results.
10. Are fish tissue samples archived for future analysis?	Archiving is not currently standard due to freezer capacity limits. Regulators recommended establishing archiving protocols. Kinross and WSP will explore feasibility for future programs.
11. Will regulators and Indigenous groups have ongoing input?	Yes. Kinross and IAAC propose establishing technical working groups (MECP, ECCC, NRCan, First Nations) to review model refinements and the updated Mercury Study Plan collaboratively.

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [ ]
Location:	Virtual		
Time:	10-10:15 AM		
Date:	October 24th, 2025		
Executive Summary:	A virtual meeting was held between Kinross Gold Corporation's Great Bear project team and the Impact Assessment Agency of Canada (IAAC) focused on permitting, approvals, and consultation processes. Key concerns included fish consumption rates and status of methylmercury reponses		
Key Actions:	- Action: IAAC to provide cumulative effects approach response - Action: GBR to provide construction / execution schedule to IAAC		

2. **Attendance**

Kiera Smith – IAAC
Valerie Williams – IAAC
Dietrich MacRae-Maahs – IAAC
Ian Martin - IAAC
Connor Devereaux – GBR
Fiona Christiansen - SLR

Meeting Notes:

- GBR inquired into the status of cumulative effects approach review by IAAC and GRT. IAAC indicated no major concerns but would have follow up in the future to close the loop
- GBR inquired into the MeHg GRT meeting originally scheduled for next week. The groups met yesterday so it was agreed that this meeting was not required.
- IAAC inquired into the status of the project construction / execution schedule. GBR is actively working on refining the construction schedule to support the development of the detailed permitting plan. Timeline unknown for when this information will be available for IAAC.

KINROSS Great Bear

IAAC – IS update (October, 28, 2025)

Great Bear Resources (GBR) is advancing the Impact Statement (IS) for the Great Bear Project through a phased submission process to facilitate timely review by IAAC, federal departments, and Indigenous communities. This approach allows for early engagement on priority technical topics while maintaining alignment with permitting requirements and project planning.

The first phase of the IS was submitted to the Canadian Impact Assessment Registry portal on September 19, 2025. Two subsequent phases are scheduled for December 2025 and March 2026, with a final consolidated IS available following completion of the phased filings.

Submission 1 consists of the following Sections:

- 1 - Introduction and Overview
- 2 - Environmental Setting
- 4 - Alternatives Assessment
- 5 - Project Description and Activities
- 19 - Environmental Approval Framework and Requirements

Submission 2 will consist of the following Sections:

- 6 - Effects Assessment Methodology
- 7- Analysis of Changes to the Environment
- 8- Analysis of Changes to Fish and Fish Habitat
- 9- Analysis of Changes to Migratory Birds
- 16 - Effects of Potential Accidents and Malfunctions
- 17 - Effects of the Environment on the Project
- 18 - Summary of Benefits.

In addition, Submission 2 will consist of the following appendices:

- D-1 Air Quality Baseline Report
- D-2 Air Quality Modelling Report
- D-3 Green House Gas Assessment
- E-1 Sound Baseline Report (Leaves On)
- E-2 Sound Baseline Report (Leaves Off)
- E-3 Noise Modelling Report
- F Blasting Assessment Report
- G Ambient Light Baseline and Predictive Light Assessment Report
- H-1 Hydrogeology Baseline Report
- H-2 Hydrogeology Modelling Report
- I-1 Hydrology Baseline Report
- I-2 Mine Site Water Balance Report
- I-3 Receiver Water Balance Report
- J Geochemistry Summary Report
- K-1 Water Quality Baseline Report
- K-2 Mine Site Water Quality Report for Mine Operations and Closure
- K-3 Receiver Water Quality Modelling Report
- L-1 Aquatic Resources Baseline Report
- M-1 Terrestrial Resources Baseline Report
- M-2 Terrestrial Assessment Methodology and Modelling
- O-1 Socioeconomic Baseline Report
- O-2 Economic Modelling Results
- O-3 Viewshed Analysis
- P-1 Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment
- P-2 Cultural Heritage Evaluation Report
- Q-1 Terrestrial Archaeological Assessment
- Q-2 Marine Archaeological Assessment
- R Draft Mine Waste Management Alternatives Assessment
- W-1 Net Zero Plan
- W-2 BAT/BEP Determination
- W-3 Climate Dataset
- W-4 Climate Risk and Resilience Report

- L-2 Draft Fisheries Act Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan

Submission 3 will consist of the following Sections:

- 3 Participation and Engagement
- 10 Analysis of Changes to Indigenous Peoples – Lac Seul First Nation
- 11 Analysis of Changes to Indigenous Peoples – Wabauskang First Nation
- 12 Analysis of Changes to Indigenous Peoples – ANA
- 13 Analysis of Changes to Indigenous Peoples – NWOMC
- 14 Analysis of Changes to Indigenous Peoples in Red Lake and Ear Falls
- 15 Cumulative Effects Assessment
- 20 Environmental Management and Follow-Up
- 21 Conclusions.

In addition, Submission 3 will consist of the following appendices:

- A-1 Tailored Impact Statement Guidelines
- B Commitments Table
- C Consultation and Engagement Materials
- N-1 Human Health and Ecological Risk Assessment
- N-2 Health Impact Assessment
- P-3 Draft Cultural Heritage Impact Assessment Report
- S Draft Regulatory Closure Plan
- T Mercury Bioaccumulation Study
- U-1 Tailings Inundation Study
- U-2 Spill and Environmental Emergency Response Plan
- V Navigable Waters Assessment Information
- W-5 Climate Roadmap

Section 22 Authors, a Preface and a Concordance Table to the TISGs will be included in each submission updated to reflect the submitted documents and information contained within each filing.

GBR remains committed to advancing the Great Bear Project in a transparent, coordinated manner that meets both federal and provincial requirements. We will continue to work closely with IAAC, regulators, and Indigenous Nations to support timely review and approval of the Project.

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual []	Hybrid [ ]
Location:	Virtual		
Time:	10-10:30 AM		
Date:	November 7th, 2025		
Executive Summary:	The meeting between GBR and IAAC focused on resolving concerns that Grassy First Nation may not have received all shared materials, with IAAC requesting document lists from both parties to cross-reference and confirm completeness, potentially via controlled SharePoint access. IAAC reaffirmed that all communications with the ETR must occur through the Secretariat, and that information will continue to be distributed simultaneously to all participants to ensure transparency. Regulators advised that ECCC has completed its cumulative effects review with only minor feedback pending, while NRCan, DFO, and ECCC continue to seek baseline data in Batch 2 submission to support a fulsome review. A Key Issue Briefing is tentatively proposed for November 20 to present the updated Mercury Study Plan, subject to Kinross responding to NRCan's latest comments. Permitting discussions noted that regulator review of the Permitting Plan is ongoing, with further dialogue planned on forecasting Decision Statement requirements and streamlining federal–provincial monitoring obligations.		
Key Actions:	- GBR to provide IAAC with summary of what has been shared with ANA.		

2. **Attendance**

Kiera Smith – IAAC
Dietrich MacRae-Maahs – IAAC
Carla De Aquino - IAAC
Aaron Macdonell – GBR
Connor Devereaux – GBR
Luke Crosby – GBR
Ryan Shaw – GBR
Fiona Christiansen – SLR
Ian Martin – IAAC
Sheila Daniel – WSP

Meeting Notes:

Grassy Narrows Correspondence

- IAAC asked whether there are any updates on correspondence with Grassy Narrows and noted that Grassy Narrows' view that they may not have received everything shared to date.
- IAAC is compiling the documents it has received and requests a list of what has been shared so it can cross-reference across parties; a method is needed to verify Grassy has all information. GBR indicates no issue and will pursue a practical solution—possibly granting IAAC controlled access to the GBR file sharing SharePoint with Grassy Narrows—with IAAC to provide the specific names/emails needed.
- IAAC confirms that questions from the ETR are not new to GBR and states it has been replying using information compiled from several parties, including GBR.
- A concern was raised about offline conversations with the ETR; IAAC reiterates that participants should not be communicating outside the ETR/Secretariat, and all sharing must occur through IAAC.
- Recommendation is to send information simultaneously to all groups; IAAC confirms this will occur, with GBR receiving materials at the same time as ETR and the First Nations communities.

Cumulative effects review status

- ECCC has no further concerns on cumulative effects; IAAC has finished its review, and any minor feedback will be provided by email unless GBR requests a meeting; GBR prefers email.
- NRCan and DFO (working with ECCC) are seeking baseline data in the 2nd Batch of Impact Statement documents to be submitted in December, and have flagged that a fulsome review is not possible without it.

Key Issue Briefing (KIB) proposal & immediate follow-up

- A KIB is proposed for Nov 20 to present results from the updated Mercury Study Plan, contingent on Kinross responding to NRCan's latest comments; GBR will send an email today on this.

Permitting Plan review timeline & sharing

- Regulators are currently reviewing the Permitting Plan, with a Nov 14 deliverable back to IAAC; a first draft will be shared with Kinross at month-end, and the timeline email from Kinross will be shared with regulators.
- GBR expects a detailed provincial-and-federal permitting plan to be available next week and is working to organize a meeting with IAAC and Ontario assistant deputy ministers.
- GBR asked if there was any way to forecast specific items we would be required to have prior to a decision statement prior to the decision being made; IAAC notes a decision can be given, but not at this time, and the conversation will continue.
- Prior examples were cited where major works were needed before the construction phase.
- Questions about whether the decision statement will focus solely on federal jurisdiction or also touch provincial aspects; IAAC notes possible overlap (e.g., water quality monitoring for methyl mercury) and suggests province-led monitoring, with potential FN-specific requests.
- GBR/WSP raised concerns about historically cumbersome, unsynchronized reporting; IAAC is open to discussing simplifications.

- IAAC will reach out to regulators to confirm what remains outstanding for a complete Batch 2 review; a follow-up that references emails with Melanie would be helpful.
- Information for Submission 2 is available and on track; GBR will review requests upon receipt.
- Call ended at **10:30 AM**.

KINROSS Great Bear

You are invited to join us for

COMMUNITY INFORMATION SESSIONS

The Kinross Great Bear team will be hosting information sessions in Red Lake and Ear Falls to share an update on the Project.

EAR FALLS

- Wednesday, November 19
- 6:00-8:00pm
- Ear Falls Legion - Clubroom

RED LAKE

- Thursday, November 20
- 6:00-8:00pm
- Red Lake Legion - Main Hall

We welcome and encourage your feedback! You can contact our team at any time by emailing GreatBearInfo@kinross.com or by calling 807-631-6769.

KINROSS

Great Bear Resources Ltd.'s (GBR) Response to July 18th, 2025 Letter as sent via email on August 7th, 2025

MECP/NRTSS Surface Water Review of Impact Statement Work Plan and Mercury Study Plan

#	Kinross Response	Comments	Great Bear Resources Response
1.	**NRTSS Comments on Impact Statement Workplan:**	*Section 3.2. Environmental Baseline Studies (*pg. 3) of the *Impact Statement Workplan* includes the following statements which require further information: – Environmental baseline studies were designed to account for natural variation, through either seasonal data collection or collection of data for more than one year. a) It is recommended that future data submissions include statistics that aid in assessing the data (e.g., min, max, median), or to submit non-amalgamated data to highlight seasonal and yearly variation. Surface water quality data submitted in *Appendix B* of the *Mercury Study Plan* is amalgamated, and therefore year-over-year and seasonal variation cannot be assessed as submitted. Notably, some parameters appear to show skewed data (e.g., Total Suspended Solids, Arsenic, Iron, and Free Cyanide have averages higher than the 75th percentile, possibly indicating a skew from high values in the upper percentile). b) b. It is recommended that in-situ water quality sampling data is included in future submissions to offer a fulsome assessment of all data collected from the site. *Figure 2-4* of the *Mercury Study Plan* (pg. 11) indicates that in-situ water quality sampling has taken place (in concert with sediment sampling). Although the in- situ sampling data has been presented by season on the figure, the data was not submitted in Appendix B of the *Mercury Study Plan*. – A larger area has been investigated than the anticipated area of influence of the Project on the physical and natural environment to gather sufficient background information for future comparison. *a)* It is recommended that Stone Lake is added to the baseline data collection program, particularly given that site expansion may occur in the future and place increased pressure on that system. Figure 3-1 of the Mercury Study Plan indicates that Stone Lake is within the project boundary and the outer boundary of the conceptual hydrological model. If the lake is not considered for baseline assessment, the proponent should further explain that decision. Section 3.5 Impact Statement Preparation within the Impact Statement Workplan (pg. 5) includes consideration for vegetation communities and human health. Wild rice, however, was not specifically noted in the submitted documentation. – It is recommended that wild rice communities are identified and mapped within the zone of impact, which includes downstream Pakwash Lake. As recommended in the surface water review from June 7, 2024, sulphate discharges impact wild rice communities.	Baseline investigation results presented within the Mercury Study Report will be appropriately focused on mercury and methylmercury, and important co-factors, in fulfilment of the requirements specified in Section 7.2 of the Tailored Impact Statement Guidelines (TISG) for the Great Bear Project (Project). Comprehensive baseline reports detailing pre-development Project conditions for other water quality parameters and valued components will be described elsewhere in the Impact Statement. As suggested by the reviewer, an appropriate range of summary statistics and figures will be presented to support understanding of year-over-year and seasonal variability. Please note, non-normal distributions, including right-skewed patterns as identified by the reviewer, are common in surface water quality datasets due to episodic events and natural variability. Elevated average values reflecting non-normality of an environmental dataset represent real environmental conditions rather than data manipulation or an error in amalgamation. There are no anticipated water quality interactions between Stone Lake and Project activities, based on the current Project Description and ongoing modelling results. As such, a baseline assessment is not warranted. Wild rice has been identified as a pathway Valued Component (pVC in the Impact Statement, based on the TISG and feedback received through consultation and engagement activities. Analyses of changes to wild rice will be included in Section 7 of the Impact Statement and will be included in the human health and ecological risk assessment in the Impact Statement as one of the country foods consumed by Indigenous Peoples. Wild rice is documented within the Property in Unnamed Waterbody 1, Unnamed Waterbody 6, along Dixie Creek, Hiewall Lake, and in an unnamed waterbody southeast of Hiewall Lake. All waterbodies containing wild rice are associated with lacustrine plain and ground moraine landforms and have deeper soils. Wild rice was consistently abundant in Unnamed Waterbody 1, while its abundance in Unnamed Waterbody 6 was highly variable. Years with high rice production are often followed by a year of low productivity, with a gradual recovery in yield (MDNR 2008). Outside the RSA, there are wild rice stands with harvest licences (which have been historically active) in Little Trout Lake (Jackfish Bay and Johnson's Bay), Mud Lake and Trout Lake. Personal use harvests are also conducted by the Namekosipiiw

#	Kinross Response	Comments	Great Bear Resources Response
			Anishinaapek in various waterbodies (MNR 2005). Additional details are provided in the Great Bear Project Terrestrial Baseline Environment Report and the Great Bear Project Terrestrial Technical Methods and Results which will be included in the Impact Statement. Wild Rice Enhancement Project: Great Bear Resources has funded a study by Northern Bioscience and Harris Ecological Consulting, upon the request of Lac Suel First Nation (LSFN) and Wabauskang First Nation (WFN). The purpose of this study is to help address the loss of historic wild rice (Manoomin) production on Wabauskang Lake. Potential effects on wild rice are anticipated (i.e., destruction of habitat) because of an overprint at Unnamed Waterbody 1 by Project infrastructure. The enhancement study is anticipated to offset potential effects on wild rice as a result of the Project. The wild rice enhancement location, on WFN reserve, has been recommended by the WFN and supported by LSFN. The study will develop potential enhancement options for implementation in 2026. In addition to habitat restoration, the Project will incorporate education and knowledge-sharing on sustainable harvesting practices, supporting long-term stewardship by community members. This collaborative initiative could support broader wild rice revitalization projects in the future and could be shared with other indigenous communities in the local area if there is interest, advancing the understanding, and recovery of this culturally and ecologically significant plant. Together, these efforts will support a more holistic understanding of wild rice habitats, cultural values, and their continued importance to the region
2.	**NRTSS Comments on Mercury Study Plan:**	*Section 1.2 Summary of Understanding Methylmercury Concentrations* within the Mercury Study Plan (pg. 1-2) includes inconsistencies regarding indicated maximum mercury concentrations and the submitted data in appendices. For instance, it is noted that the highest value of mercury in surface waters was 16.3 ng/L, although within Appendix B (Table B-5), monitoring location SW-12 shows an average of 18 ng/L for this parameter. Further, it is indicated that sediment quality monitoring shows up to 0.18 mg/kg of total mercury, and results in Appendix C indicate values up to 0.22 mg/kg which is above the PSQG lowest effect level (LEL). *Section 2.2.1 Water Quality (pg. 10)* indicates the following: – Dissolved ultra-low mercury was to be included as a parameter in environmental baseline studies; however, results presented in Appendix B do not show these results. – Dissolved oxygen data is collected as part of baseline studies (Figure 2-2). This data was not included in the Mercury Study Plan and should be added to Appendix B for consideration. In agreement with the February 13, 2025, review by Shannon Heggie, it is recommended that Total Organic Carbon (TOC) and sulfide are included in the list of water quality co-factors described in Section 2.2.1 *Water Quality*. Dissolved Organic Carbon (DOC)/TOC relationships are often site-specific, therefore it is important to capture these parameters simultaneously in the water column to accurately assess relationships. *Section 2.2.2 Fish and Fish Habitat* (pg. 6) indicates that baseline studies for total and methylmercury concentrations in fish and their habitats includes several locations, including Pakwash Lake. Although sediment surveys were conducted, *Figure 2-5* shows that fish tissue was not collected within the lake. – It is recommended that the proponent add Pakwash Lake to baseline fish tissue collection in conjunction with sediment sampling. Pakwash Lake is directly downstream of the proposed final effluent point location within the Chukuni River, and harbours fish communities which may interact with effluents from the mine. Understanding baseline fish tissue concentrations	– The Mercury Study Plan presented available baseline results at the time; the text describes the percentiles and summary statistics presented in the main text tables (25^{th} to 75^{th} percentiles). This will be updated in final reporting provided in the Impact Statement and Mercury Study. – Dissolved ultra-low mercury will be included in the final Impact Statement and Mercury Study Report. – Baseline investigation results presented within the Mercury Study Report will be appropriately focused on mercury and methylmercury, and important co-factors such as the following: o Low level total mercury (bulk and dissolved) o Low level methylmercury (bulk and dissolved) o Dissolved sulphate and sulphide o Dissolved and total organic carbon o Dissolved and total metals o Major ions, general chemistry o Temperature, dissolved oxygen, conductivity, pH, ORP (all in situ).

#	Kinross Response	Comments	Great Bear Resources Response
		in this lake is paramount for comparison to future values, and to assess consumption risks. As per *Figure 2-4* (pg. 11), in-situ water quality data was not reported. It is unclear what parameters were sampled, and if this data is to be shared. The figure depicts seasonal breakdown of in-situ water quality data; however, it appears that sampling has not captured a full range of seasonality, as intended. It is unclear why data from all four seasons was not collected, especially in lakes where samples were taken in fall only. – It is recommended that in-situ water quality data is included in future submissions, and for the proponent to consider continued sampling to capture the natural variation of seasonality at the identified locations in *Figure 2-4*.	– in fulfilment of the requirements specified in Section 7.2 of the Tailored Impact Statement Guidelines for the Project. Comprehensive baseline reports detailing pre-development Project conditions for other water quality parameters and valued components will be described elsewhere in the Impact Statement. Baseline water quality monitoring includes total and dissolved organic carbon as well as dissolved oxygen; these data will be presented in the final reporting. – Baseline fish sampling was conducted across all waterbodies within the Project study area and across all fish species of interest with the exception of lake whitefish from Pakwash Lake, where the Ministry of Natural Resources (MNR) did not approve a request to add collection of lake whitefish to an existing license to collect fish for scientific purposes. However information on lake whitefish from incidental mortalities was retained as one bycatch lake whitefish sample was submitted for analysis in 2023 from Chukuni River from location CR-FDP. Baseline studies in Pakwash Lake are ongoing. – Total mercury and methylmercury fish tissue data for Pakwash Lake were also obtained from the Ministry of Environment Conservation and Parks (MECP) website to help characterise baseline fish tissue concentrations and to predict changes to fish tissue from predicted changes in water quality from effluent discharge. These data will be presented in the final reporting. – Please note, detailed discussion and characterization of baseline results was not the objective of the Mercury Study Plan; rather, its purpose was to outline the proposed baseline studies and modelling approaches; data available at the time was included for context and to support review of studies as proposed. Baseline water quality monitoring includes *in situ* water quality data at all surface water quality sampling locations, including pH, redox conditions, temperature and conductivity. These data will be presented in the final reporting and are described as follows: – Surface water: From hypolimnion and epilimnion (where lakes were stratified) or two times the Secchi depth (where lakes were mixed): o Low level total mercury (bulk and dissolved) o Low level methylmercury (bulk and dissolved) o Dissolved sulphate and sulphide o Dissolved and total organic carbon o Dissolved and total metals o Major ions, general chemistry o Temperature, dissolved oxygen, conductivity, pH, ORP (all in situ). – Sediment: From epilimnetic (where present) and hypolimnetic zones, by coring; cores sectioned into upper

#	Kinross Response	Comments	Great Bear Resources Response
			biologically active layer and lower legacy layer: o Low level total mercury o Low level methylmercury o Sulphate and sulphide o Total organic carbon o Total metals o Major ions, general chemistry o Bulk density, % moisture, porosity. – Porewater: From epilimnetic (where present) and hypolimnetic zones, from sediment cores of upper biologically active layer and lower legacy layer: o Low level total mercury (dissolved) o Low level methylmercury (dissolved) o Dissolved sulphate and sulphide o Dissolved and total organic carbon o Dissolved and total metals o Major ions, general chemistry.
3.	**Technical Assessment and Standards Development Branch (TASDB) Input**	*TASDB comments are limited to additional issues not already identified by NRTSS.* ***TASDB Comment #1**: Section 2.2.1 of the Study Plan indicates that surface water total mercury and methylmercury baseline data will be compared against the CCME water quality guidelines (CWQG) for the protection of aquatic life (26 ng/L total mercury, 4 ng/L methylmercury). The CCME guideline states that the CWQG for mercury and methylmercury is protective against direct toxic effects of Hg to aquatic biota and "may not prevent the accumulation of methylmercury in aquatic life", deferring to the CCME Tissue Residue Guideline instead. Page 7 of the Study Plan indicates that methylmercury concentrations will be compared against CCME Canadian Tissue Residue Guideline for the Protection of Wildlife Consumers of Aquatic Biota (0.033 mg/kg wwt). Large-bodied fish tissue for mercury and methylmercury concentrations will be compared to the Ontario consumption guidelines (MECP 2015) and federal food and nutrition standards (Health Canada 2011).* *Given that the primary concern with sulphate induced mercury methylation is biomagnification, MECP recommends considering the British Columbia's (BC) water quality guideline (WQG) for total mercury as another tool to assess the risk of mercury biomagnification for the GBR project.* *The BC WQG ranges from <1 to 20 ng/L based on a 30-day average concentration (based on five weekly samples) and the fraction of methyl mercury to total mercury. The BC WQG has been developed to protect freshwater aquatic life from chronic effects of mercury and also to prevent "undesirable accumulation of mercury from water to the food chain that may harm the most sensitive consumers (e.g., avian species) of aquatic life". For example, at 8% methylmercury (of total mercury), the BC WQG is 1.25 ng/L and at 0.5% methyl mercury (or less), the BC WQG is set at 20 ng/L.* *Overall, when tissue residue information is available, it is the best indicator of overall exposure as it integrates temporal and spatial exposure from all exposure routes. However, surface water monitoring may also be an important indicator for early detection of mercury methylation before elevated levels in fish tissue can be detected. Hence, it is important that comprehensive surface water monitoring is undertaken at appropriate detection limits and frequencies to detect changes in methylmercury in surface water.*	– The British Columbia Water Quality Guidelines identified by the reviewer will be integrated into the Mercury Study Report for use as an additional screening tool for surface water quality, along with the other surface water guidelines identified in the Mercury Study Plan. – Regardless of whether baseline or predicted mercury or methylmercury exceeds the applied water quality guidelines, mercury and methylmercury will be carried forward for consideration in the human health risk assessment in the Mercury Study, as well as in the human health and ecological risk assessment in the Impact Statement.
4.	***TASDB Comment #2:***	***TASDB Comment #2***: In some freshwater ecosystems, sulphate supply can be a limiting factor in the mercury methylation process, and the addition of sulphate may have a potential to increase the proportion of mercury that is transformed into methylmercury. The degree to which sulphate may stimulate methylmercury production is site-specific and not necessarily linear. In fact, sulphate can stimulate or inhibit mercury methylation depending on the total sulphate concentration and amount of sulphide (the reduced form of sulphate) present as well as other sediment characteristics. Sulphate concentrations within a specific range	– Acknowledged. Baseline investigation results and predictive modelling efforts regarding interactions between sulphate and methylmercury production, including sediment porewater, will be addressed in the Mercury Study Report in fulfilment of the requirements specified in Section 7.2 of the

#	Kinross Response	Comments	Great Bear Resources Response
		can increase mercury methylation under certain site-specific conditions. This is often referred to as the 'Goldilocks Zone'. If sulphate concentrations and site conditions in the receiver result in a "Goldilocks Zone', then the spatial extent of where it occurs downstream would be important in predicting potential concerns related to mercury methylation. Note that this zone may vary under different environmental conditions (i.e., seasonally, under different flow rates regimes, etc.). Hence, it is important to define the site-specific conditions that are contributing to methylation as well as to consider the extent of potential sulphate induced methylation in the larger Chukuni river watershed (and possibly even farther downstream). Because sulphate is known to have the potential to stimulate mercury methylation and that methylation may be limited to a 'Goldilocks zone', it is important that the potential impacts to water, sediment (including sediment porewater), and fish are characterized in the areas downstream of the effluent discharge. Specifically, monitoring should include Pakwash Lake and areas further downstream as warranted.	Tailored Impact Statement Guidelines for the Project. This includes the areas downstream of the effluent discharge, including the Chukuni River, Pakwash Lake and areas downstream of Pakwash Lake to the English River.
	Recommendations	***Recommendations*** Proposed sampling should be conducted using consistent methodologies and detection limits to allow for accurate assessment of data and trends. Figure 2-4 of the mercury study plan outlines the in-situ water quality and sediment quality baseline sampling stations, as well as defining which stations are sampled in spring, summer, and fall. It is unclear how samples will be collected to allow for seasonal comparison. In addition, it does not appear that winter samples are proposed. The Study Plan should further define how seasonal sampling will be conducted and how seasonal trends will be assessed. The surface water quality data summarized in Appendix A of the mercury study plan does not allow for adequate assessment of seasonal variation. Data should be collected to allow for temporal and spatial comparisons. A surface water station should be added at the outlet of Pakwash Lake. Section 3.2 indicates that the regional study area extends to the outlet of Pakwash Lake, however Figure 2-2 does not include a surface water quality baseline station at the Pakwash Lake outlet. Figure 2-5 does not identify any fish tissue mercury and methylmercury baseline sampling locations in Pakwash Lake. The addition of fish tissue baseline sampling locations in Pakwash Lake are recommended. Tables in Appendix A indicate that current baseline large-bodied fish tissue results are compared to the Ontario fish consumption guideline of 0.5 ug/g, which represents the level at which fish should not be eaten. The levels of mercury that do not result in consumption restrictions (i.e., a person can eat up to 32 meals/month) are <0.06 µg/g for the sensitive population and <0.15 µg/g for the general population. Progressively more restrictive consumption advice is provided for fish with higher levels of mercury. Comparisons should be made to other restriction levels as outlined in the Ontario fish consumption guideline. Sulphate and methylmercury should be considered as additional parameters for sediment baseline monitoring. Sediment pore water should also be considered as it is an environmental media of interest since increased sulphate concentrations in the overlying water would be expected to reach a new equilibrium with the sediment pore water (over time), and this increased sulphate in the pore water could stimulate mercury methylation under suitable conditions. The methods for analyzing monitoring data and assessing trends should be further defined in the Study Plan.	The environmental baseline programs for the Project have been developed in alignment with the applicable regulatory framework for proposed mining projects in Ontario. For surface water quality, the programs include long-term seasonal sampling to capture natural variability and to characterize pre-development conditions. The majority of surface water quality sampling has been conducted monthly, including winter months, when flow was present and the sampling station could be safely accessed. Note that some sampling locations could only be sampled seasonally and / or on a quarterly basis due to site accessibly constraints and because flow was seasonally absent or frozen to bottom. Sampling methodologies and analytical detection limits will be presented in final reporting. – Detailed discussion and characterization of baseline conditions is not the objective of the Mercury Study Plan; rather, its purpose is to outline the proposed baseline studies and modelling approaches; data available at the time was included for context and to support review of studies as proposed. Baseline investigation results presented within the final Mercury Study Report will be appropriately focused on mercury and methylmercury, and important co-factors such as the following: o Low level total mercury (bulk and dissolved) o Low level methylmercury (bulk and dissolved) o Dissolved sulphate and sulphide o Dissolved and total organic carbon o Dissolved and total metals o Major ions, general chemistry o Temperature, dissolved oxygen, conductivity, pH, ORP (all in situ). In fulfilment of the requirements specified in Section 7.2 of the Tailored Impact Statement Guidelines for the Project. Comprehensive baseline reports detailing pre-development Project conditions for other water quality parameters and value components will be described elsewhere in the Impact Statement Baseline fish sampling was conducted across all waterbodies and fish species of interest with the exception of lake whitefish from Pakwash Lake, where the MNR did not approve a request to add collection of lake whitefish to an existing license to collect fish for scientific purposes. To support reporting, total mercury

#	Kinross Response	Comments	Great Bear Resources Response
			and methylmercury fish tissue data for Pakwash Lake were obtained from the MECP website will be used to characterise both baseline fish tissue concentration and also predict changes to fish tissue from predicted changes in water quality from effluent discharge. In addition, fish tissue samples are currently being collected in fall 2025. These data will be presented in the final reporting. Sediment samples were analyzed for total mercury and did not include analysis of methylmercury. Sediment porewater sulphate and methylmercury are included in the baseline sediment monitoring. The overall objective of the Mercury Study Report is to understand the effects of the Project on mercury levels in fish and risks to human health via fish consumption. The risks to human health will be assessed based on multiple lines of evidence, such as: – The magnitude of the Hazard Quotient (HQ) values calculated in the human health risk assessment (HHRA) – The potential contribution from the Project to Baseline Case HQ values – The conservatism incorporated in the exposure modelling and consumption rates – Comparison of the HQ values projected for the average and heavy consumer – Comparison of Project projections of methylmercury concentrations in fish tissue to Baseline ranges – Comparison of Project projections of methylmercury concentrations in fish from other regions of Ontario and Canada – Comparison of Project projections of methylmercury concentrations in environmental samples against federal guidelines – Evaluation of the potential for changes in MECP fish consumption advisories associated with the Project projections of methylmercury in fish – Health benefits of fish consumption.

References:

- Minnesota Department of Natural Resources (MDNR). 2008. Natural Wild Rice in Minnesota: A Wild Rice Study Document Submitted to the Minnesota Legislature by the Minnesota Department of Natural Resources February 15, 2008. University of Minnesota; 113. Accessed on 16 July 2025. Accessed from: https://www.lrl.mn.gov/docs/2008/mandated/080235.pdf
- Ministry of Natural Resources (MNR). 2005. Trout Lake Conservation Reserve (C2334) Resource Management Plan. Accessed April 8, 2025 from: https://files.ontario.ca/environment-and-energy/parks-and-protected-areas/mnr00_bcr0155.pdf

KINROSS

Advanced Exploration Project

Great Bear Resources Ltd.'s (Great Bear Resources) Response to August 12, 2025 Natural Resources Canada (NRCan) comments on Methylmercury Study Plan and Proposed Modelling

#	Comment Topic	NRCan Comments	Great Bear Resources' Response
1.	**Source Term Characterization**	1. Absence of mine material characterization data supporting the Hg study plan is a significant concern. NRCan questions how Hg can be identified as an issue in the absence of data on excavated mine materials having been provided. Regardless, mine material characterization is essential to derive conservative Hg and MeHg release rates, which form the basis for predicting concentrations in mine water and the receiving environment. 2. A comprehensive geochemical characterization program, consistent with MEND 1.20.1, should include sufficient replication of ABA, static, and kinetic testing for all lithologies to be excavated and for all tailings streams. This characterization must continue throughout operations. The Hg analytical method must also be appropriate—ICP-MS is not suitable for this purpose. Alternative methods, such as those employed by Goulet et al. (2007), should be used. These data are crucial for NRCan to determine whether the release rate assumptions are sufficiently conservative, which, in turn, informs the selection of appropriate mitigation measures.	Geochemical characterization studies of mined and excavated materials, as well as tailings, will be undertaken in accordance with best-available guidance (e.g., MEND guidance) and industry standard practices, and will be consistent with the Tailored Impact Statement Guidelines (TISG) issued for the Great Bear Project (Project). Baseline investigation results presented within the Mercury Study Plan have been appropriately focused on mercury and methylmercury, and important co-factors, in fulfilment of the requirements specified in Section 7.2 of the TISG. Detailed geochemical baseline studies and testing reporting for the Great Bear Project (Project) are currently being progressed and will be appropriately reported in a stand-alone report to support the Impact Statement.
2.	**Uncertainty With Hg/MeHg Guidelines**	- NRCan recommends use of site-specific criteria for Hg, MeHg, and SO_4. - When CCME guidelines are deemed sufficiently protective, mitigation measures are typically designed to ensure that predicted Hg, MeHg, and SO_4 concentrations in the receiving environment meet those standards. However, if there is uncertainty, adopting more conservative guidelines—such as those from the USEPA—may be appropriate. However, these criteria must be aligned with baseline environmental concentrations to ensure they remain realistic. Therefore, accurate quantification of baseline Hg, MeHg, and SO_4 is essential. Once this baseline is established, iterative water quality modelling can be used to identify mitigation measures that reduce concentrations to levels that meet the guidelines and are similar or above baseline or that are as low as reasonably achievable (ALARA), considering social and economic factors. These model predictions should then serve as site-specific criteria and compliance tools.	Thank you for these comments. The Impact Statement and Mercury Study Report will include a human health risk assessment that predicts changes in risks for mercury and methylmercury based on emissions to the receiving environment (i.e., air and water emissions including increased methylmercury production in sediment bacteria related to sulphate emissions as well). The risks will be compared to baseline conditions to determine the incremental risks associated with the Project. Based on the projected risks site-specific criteria will be developed accordingly.
3.	**Modelling Tools to Predict MeHg in Water, Sediment and Fish Tissue**	The proponent plans to use GoldSim to model SO_4, Hg, and MeHg. CanmetMINING has reviewed the additional documentation outlining the modelling approach. - The model includes hydrology across 23 waterbodies downstream of the proposed effluent discharge. SO_4 retention in each waterbody is modelled using a loss term of 0.46 m/year. NRCan cannot currently assess whether this rate is conservative. The model relates SO_4 loading to Hg methylation through regression based on four studies, producing a statistically significant relationship ($p = 0.008$; $R^2 = 0.76$). However, this analysis excludes the findings of Goulet et al. (2007) and related references, which should be incorporated to strengthen the regression. - It is also unclear whether the effluent loading rates used in the model reflect the use of the best available treatment technology economically achievable (BATEA). The modelling should clearly incorporate BATEA standards. - Regarding MeHg estimation, the model uses an algorithm based on the conservative assumption that all porewater MeHg is released to the water column. Goulet et al. (2007) suggest that under oxic conditions, MeHg may not diffuse from sediments. Therefore, the model's assumption is conservative. The algorithm variables include: o Increased water-column MeHg concentration o Waterbody volume o Surface area o Average depth o Porewater MeHg mass o Porewater volume o Sediment depth (assumed 10 cm, supported by Branfireun and Goulet et al., 2007) o Sediment moisture content (not provided but required)	GoldSim water quality model will incorporate plans for water treatment and water management strategies consistent with the TISG and are appropriate for this stage of development. In addition to the GoldSim water quality model, Great Bear Resources has developed a Project-specific sulphate-mercury model to predict potential changes in methylmercury in the aquatic environment due to sulphate in the Project effluent. The model includes a water quality module and bioaccumulation module, and will feed directly into the human health risk assessment for methylmercury related to the Project. The model is currently being refined with site-specific surface water, sediment, porewater and fish data from the water features downstream of the Project, with initial predictive results expected late in 2025. The model has and will continue to be scrutinized by third-party peer review. The human health risk assessment included in the Mercury Study Report will incorporate the results predicted from the GoldSim water quality model and Project-specific sulphate-mercury model.

#	Comment Topic	NRCan Comments	Great Bear Resources' Response
		○ Porewater MeHg concentration ○ Relative increase in porewater MeHg concentration ○ Background porewater MeHg concentration ○ Relative SO_4 load increase ○ SO_4 load retained in effluent ○ Background SO_4 load retained - The proponent then presents a sensitivity analysis of the overall model that include SO_4 loading, background MeHg concentrations, and temperature. However, NRCan recommends additional sensitivity analyses be conducted for variables that influence MeHg production and its flux to the water column, including sediment surface area, moisture content, sediment depth, and SO_4 concentration. This is crucial to identify the most influential parameters in the model's prediction of MeHg, Hg, and SO_4 concentrations in the receiving environment.	
4.	**Mitigation Measures**	The proponent states that water management and mitigation measures are being developed to minimize impacts on water quality, including Hg, MeHg, and SO_4. The proponent intends to design water systems to avoid discharging contact water into oxygen-poor or wetland environments. Measures under consideration include: - Desulphurizing tailings to separate PAG and non-PAG streams - Managing PAG tailings under water cover in a mined-out pit - Installing a seepage collection system and discharging treated effluent to the Chukuni River - Stripping and reusing upper organic soil during reclamation While these measures are a good start, they are incomplete. For example, there is insufficient detail on strategies to segregate and manage excavated materials with high Hg content. Such materials could be co-managed with tailings under anoxic conditions, particularly if the primary Hg phase is cinnabar (HgS). Similarly, PAG waste rock should be managed in the mined-out pit with PAG tailings. While the proponent expresses a preference to discharge effluent into a large river without wetlands, they do not specify which BATEA will be implemented to effectively remove Hg, MeHg, and SO_4. This is a critical omission that needs to be addressed. Another major gap in the Hg study plan is the lack of well-defined monitoring triggers. Predictions of SO_4, Hg, and MeHg concentrations in mine water, groundwater, effluent, and receiving waters and sediment over time and space should serve as compliance triggers. If monitoring shows that concentrations are within predicted levels, then no additional action is necessary. However, if predictions are exceeded, the proponent must commit to reassessing the associated risks and implementing additional mitigation as required.	The development of mitigation measures to address Project contributions to methylmercury production will be guided by industry-standard practices, baseline study results, predictive modelling outcomes, and input received through consultation and engagement. While the Mercury Study Plan provides a summary of potential measures, the finalization of appropriate and effective water treatment technologies will follow from the mercury study and iterative modelling process, which are designed to refine and target mitigation measures. Collectively, baseline data, water quality modelling, and the mercury study will inform the development of mitigation and treatment approaches, which will then be subject to review and approval through the provincial regulatory process. Final monitoring triggers will be established through the provincial approvals process in conjunction with the MECP. This is the standard and established practice under the regulatory regime for proposed mining projects in Ontario.

KINROSS Great Bear

Great Bear Gold Project

Great Bear Resources Ltd.'s Response to Water Science and Technology Directorate (WSTD), Environment and Climate Change Canada (ECCC) Comments on Great Bear Resources Ltd.'s Response to IAAC Comments (dated 3 March 2025) on the Draft Mercury Study Plan

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
IAAC-10	Page 6, Section 2.2.1 Water Quality	WSTD requests clarification on when the clear explanation of how each guideline is being used in the reporting on the results of the mercury study will be provided (i.e., at what stage of the IA process)?	A consistent set of water quality guidelines will be applied throughout the Impact Statement, including the final Mercury Study Report, with numerical values and full citations clearly identified. Comparison of measured and / or projected water quality data to environmental guidelines (i.e., guidelines for the protection of drinking water or aquatic life) will be provided in the Impact Statement for comparison purposes as is expected from federal environmental assessments following the *Impact Assessment Act*. The Impact Statement will characterize measurements above guidelines (e.g., frequency and magnitude) and potential receptors (i.e., human and / or ecological); however, the measurements above guidelines are not considered an indicator of risk, but help to identify chemicals of potential concern where more detailed assessment is considered including site-specific considerations. Clear explanation of how each guideline is being applied will be incorporated into the Mercury Study Report and the Human Health and Ecological Risk Assessment (HHERA) report, which will be appended to the Impact Statement. Since mercury is considered a highly bioaccumulative substance and is of particular concern to communities in the area of the Project, it will be carried forward as a chemicals of potential concern for consideration in the human health risk assessment (HHRA) within the Mercury Study report and the HHERA report in the Impact Statement regardless of whether or not mercury is above water quality guidelines.
IAAC-11	Page 5-6, Section 4.2.1 Water Quality	WSTD notes the proponent response that "Water quality sampling has been ongoing including at depth, as part of the surface water quality and aquatics baseline programs" and that "Water quality profiles with depth are also completed as part of the monitoring program (redox, oxygen, temperature, pH and conductivity)". WSTD requests clarification and confirmation that the parameters noted in IAAC-11 (including total mercury, methylmercury and all ancillary parameters) are being sampled at multiple depths in the lake water columns as part of the Mercury Study	Water quality sampling for parameters identified by IAAC-11, are sampled both at surface (0.5 m) and at depth (0.5 m from bottom) for all deep basin systems in the baseline study area; this includes Genessee Lake, Unnamed Waterbody 6, Gullrock Lake and all four baseline stations on Pakwash Lake, which is consistent with industry standard practice. Physicochemical profiling through depth (measurements collected at 0.5 to 1 m increments) has also proceeded in conjunction with scheduled sampling for water quality parameters. Shallow lakes (i.e., Dixie Lake and Unnamed Waterbody 1 (where there is a water column

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		Plan, as requested in IAAC-11.	depth of less than 1 m) were sampled for the parameters identified in IAAC-11 at a single sampling depth.
IAAC-12	Page 6-7, Section 2.2.2 Fish and Fish Habitat	WSTD notes the proponent is not undertaking the sampling and analysis of dated late sediment cores recommended in IAAC-12 (with peer reviewed references provided) as part of the Mercury Study Plan as "changes to methyl mercury in sediment porewater will be quantified, and the relevance of porewater changes to surface water chemistry and bioaccumulation potential will be quantified through predictive modelling." However, WSTD notes that while porewater measurements are extremely valuable, they are time consuming and logistically challenging for both sampling and analysis and thus there is a risk that they will not be carried out properly. WSTD therefore requests that the baseline porewater data be provided for review as part of reporting of results for monitoring and modelling studies. Further, WSTD notes that neither the porewater samples nor the surface sediment grabs being undertaken will provide information on the natural range in mercury, metals, and other contaminant deposition in the region or enhanced sediment total mercury levels originating directly from the project. The proponent states "Burrowing invertebrates and insectivorous fish are expected to use and bioturbate the upper sediment layers". However, WSTD notes there is extensive scientific evidence/literature (see references provided in the original comment) demonstrating the use of dated lake sediment cores (collected from the deepest part of the lake) in tracking changes in contaminant deposition over time from various industrial developments. Any sediment disturbance (i.e., from bioturbation or sediment slumping for example) would be seen in the lead-210 dating of the sediment cores which could then be considered in the data interpretation. Finally, WSTD requests a response from the proponent on the recommendation in IAAC-12 that mercury stable isotopes be measured in the lake sediments to track or tease apart different sources of mercury	Baseline porewater data will be provided for review as part of the reporting of results for monitoring and modelling results. Sediment disturbance will be considered during data analysis. We are considering mercury isotope analysis with future monitoring.

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td>(i.e. natural versus from the project) to the sediment lake bottom.</td><td></td></tr>
<tr><td>IAAC-13</td><td>Page 6, Section 2.2.2 Fish and Fish Habitat</td><td>Noting IAAC-13 requested “data on the sample sizes of each species obtained in 2022-2024 and the plans for future sample sizes” and “A minimum sample size of n=10 is required from each species at each sampling location and time to allow for any basic statistical analysis”, WSTD notes the table provided by the proponent includes total sample numbers for all species at all sites across all years. WSTD requests more detail of the information provided to ensure the sample size of n=10 for each species at each location and for each time period was reached. Further, WSTD recommends the proponent focus the baseline and post-development monitoring on obtaining good samples sizes (i.e., n=10) for a few sentinel monitoring species rather than sampling so many different species (i.e., it appears the proponent sampled n=145 insectivorous fish across 5 sites and ~10 species).</td><td>A more detailed description of the sample sizes and species obtained in the 2022-2024 aquatic sampling programs is summarized in the Mercury Study report and a summary is provided in Table 1. Table 2 presents a more detailed summary of the number, species and locations where fish were sampled. This information will also be added to the Mercury Study report. In many instances (e.g., Chukuni River) the sample size of 10 was achieved for a particular species. Additional fish sampling was completed from select downstream waterbodies (i.e., Pakwash Lake, Camping Lake, Wegg Lake, Ball Lake and Indian Lake) in the fall of 2025, with results pending.

Table 1: Summary Baseline Aquatic Resources Data
<table>
<tr><th>Media</th><th>Species</th><th>Sample Location</th><th>Sample Size</th><th>Data Range</th></tr>
<tr><td>Piscivorous Fish</td><td>Northern Pike
Walleye
Yellow Perch</td><td>Dixie Creek
Chukuni River
Genessee Lake
Unnamed Waterbodies</td><td>175</td><td>2022-2024</td></tr>
<tr><td>Omnivorous Fish</td><td>Lake Whitefish</td><td>Chukuni River</td><td>2</td><td>2022-2023</td></tr>
<tr><td>Insectivorous Fish</td><td>Silver Redhorse
White Sucker
Brook Stickleback
Central Mudminnow
Finescale Dace
Iowa Darter
Lake Chub
Northern Redbelly Dace
Spottail Shiner
Yellow Perch</td><td>Dixie Creek
Chukuni River
Genessee Lake
Unnamed Waterbodies
Unnamed Watercourses</td><td>32</td><td>2022-2024</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Invertebrates</td><td>Aeshnidae (Dragonfly nymph)
Belostomatidae (Giant Water Beetle)</td><td>Dixie Creek
Chukuni River
Pakwash Lake
Genessee Lake
Unnamed Waterbody 6</td><td>60</td><td>2024</td></tr>
<tr><td>Zooplankton</td><td>Composite Samples</td><td>Dixie Creek
Chukuni River
Pakwash Lake
Genessee Lake
Unnamed Waterbody 6</td><td>17</td><td>2024</td></tr>
<tr><td>Periphyton</td><td>Composite Samples</td><td>Dixie Creek
Chukuni River</td><td>33</td><td>2024</td></tr>
<tr><td>Sediment solids</td><td>N/A</td><td>Dixie Creek
Chukuni River
Pakwash Lake
Genessee Lake
Unnamed Waterbodies
Unnamed Watercourses</td><td>177</td><td>2022-2024</td></tr>
<tr><td>Sediment Porewater</td><td>N/A</td><td>Dixie Creek
Chukuni River
Pakwash Lake</td><td>64</td><td>2024</td></tr>
<tr><td>Surface Water</td><td>N/A</td><td>Dixie Creek
Chukuni River
Pakwash Lake</td><td>50</td><td>2022-2024</td></tr>
</table>
Table 2: Detailed Summary Baseline Fish Resources Data
<table>
<tr><th>Species</th><th>Waterbody</th><th>Year</th><th>Sample Location (Sample Size)</th></tr>
<tr><td>Northern Pike</td><td>Chukuni River</td><td>2022</td><td>CR-REF (2)
CR-DS (3)</td></tr>
<tr><td>Northern Pike</td><td>Chukuni River</td><td>2023</td><td>CR-REF (3)
CR-DS (1)
CR-FDP (3)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Northern Pike</td><td>Chukuni River</td><td>2024</td><td>CR-REF (1)
CR-DS (3)
CR-FDP (6)</td></tr>
<tr><td>Walleye</td><td>Chukuni River</td><td>2022</td><td>CR-REF (3)
CR-DS (1)</td></tr>
<tr><td>Walleye</td><td>Chukuni River</td><td>2023</td><td>CR-REF (4)
CR-DS (11)
CR-FDP (9)</td></tr>
<tr><td>Northern Pike</td><td>Dixie Creek</td><td>2022</td><td>DC-03 (1)
DC-04 (10)</td></tr>
<tr><td>Northern Pike</td><td>Dixie Creek</td><td>2023</td><td>DC-02 (3)
DC-03 (2)
DC-04 (2)</td></tr>
<tr><td>Northern Pike</td><td>Genessee Lake</td><td>2022</td><td>GL-GN1 (1)
GL-GN2 (3)
GL-GN3 (1)
GL-GN4 (2)</td></tr>
<tr><td>Northern Pike</td><td>Genessee Lake</td><td>2023</td><td>GL-GN1 (2)
GL-GN2 (2)
GL-SN1 (1)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Walleye</td><td>Genessee Lake</td><td>2023</td><td>GL-GN1 (6)</td></tr>
<tr><td>Northern Pike</td><td>Unnamed Waterbody 2</td><td>2022</td><td>WB-2-GN1 (1)</td></tr>
<tr><td>Northern Pike</td><td>Unnamed Waterbody 2</td><td>2023</td><td>WB-2-MT1 (1)
WB-2-GN3 (1)
WB-2-GN2 (2)</td></tr>
<tr><td>Northern Pike</td><td>Unnamed Waterbody 6</td><td>2022</td><td>WB-6-GN1 (4)
WB-6-GN2 (4)
WB-6-GN4 (2)</td></tr>
<tr><td>Northern Pike</td><td>Watercourse 1</td><td>2023</td><td>WC-1-EF1 (1)
WC-1-EF3 (2)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Northern Pike</td><td>Watercourse 7</td><td>2022</td><td>WC-7-GN4 (1)</td></tr>
<tr><td>Northern Pike</td><td>Watercourse 7</td><td>2023</td><td>WC-7-GN1 (2)</td></tr>
<tr><td>White Sucker</td><td>Chukuni River</td><td>2022</td><td>CR-DS (3)
CR-FDP (1)</td></tr>
<tr><td>White Sucker</td><td>Chukuni River</td><td>2023</td><td>CR-REF (1)
CR-DS (4)
CR-FDP (6)</td></tr>
<tr><td>White Sucker</td><td>Chukuni River</td><td>2024</td><td>CR-DS (6)
CR-FDP (4)</td></tr>
</table>
</td></tr>
</table>

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response

White Sucker	Dixie Creek	2023	DC-02 (1)
White Sucker	Genessee Lake	2023	GL-GN2 (1)
Yellow Perch	Genessee Lake	2022	GL-GN1 (8)
Yellow Perch	Genessee Lake	2023	GL-GN2 (11)
Yellow Perch	Chukuni River	2023	CR-REF (11) CR-DS (12) CR-FDP (7)

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Yellow Perch</td><td>Dixie Creek</td><td>2023</td><td>DC-02 (3)
DC-04 (3)</td></tr>
<tr><td>Yellow Perch</td><td>Unnamed Waterbody 6</td><td>2023</td><td>WB-6-GN1 (9)
WB-6-SN1 (1)
WB-6-GN2 (2)</td></tr>
<tr><td>Yellow Perch</td><td>Unnamed Watercourse 3</td><td>2023</td><td>WC-3-EF1 (2)</td></tr>
<tr><td>Yellow Perch</td><td>Unnamed Watercourse 7</td><td>2023</td><td>WC-7-GN1 (1)</td></tr>
<tr><td>Lake Whitefish</td><td>Chukuni River</td><td>2023</td><td>CR-FDP (1)</td></tr>
</table>
</td></tr>
</table>

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
			<table><tr><td>**Silver Redhorse**</td><td>Chukuni River</td><td>2023</td><td>CR-FDP (1)</td></tr></table>
IAAC-14	Page 6-7, Section 2.2.2 Fish and Fish Habitat	WSTD notes IAAC-14 provided scientific rationale and references for the analysis of carbon and nitrogen stable isotopes in all samples. The proponent responded that “Carbon and nitrogen isotopes were analyzed from some 2024 samples collected from fish, invertebrates zooplankton and periphyton.” WSTD recommends that 1. all samples that were analyzed for mercury and methylmercury be analyzed for carbon and nitrogen to enhance the baseline dataset and for potential use in modelling. 2. The proponent share data on relationships between methylmercury and C and N isotopes for the complete foodweb at each site as part of reporting of results for baseline and modelling studies. Finally, WSTD requests a response from the proponent on the recommendation in IAAC-14 that baseline and post-development measurements of mercury stable isotopes in a subset of key fish species would further allow changes in sources of mercury and methylmercury to food web organisms to be tracked/differentiated and is thus required to allow a detailed and robust analysis for the “potential for project contributions to methylmercury production in downstream watersheds”.	Carbon and nitrogen isotopes were analyzed in a limited dataset (e.g., periphyton) and more samples will be analyzed for carbon and nitrogen isotopes (e.g., benthic invertebrates and fish) with recent sampling programs (i.e., 2025). These data will be made available with the mercury study report, impact statement or future monitoring reports. The continuation of the isotope analysis for post-development monitoring design will be considered after the predictive surface water results are reviewed with consideration of the potential magnitude of change and / or risks. Post-development monitoring design should be commensurate with predicted changes and validating data that is meaningful for traditional and contemporary use of country foods and aquatic systems.
IAAC-16	Page 16, Section 3.4.3 Mercury and methylmercury water quality modelling	To clarify, IAAC-16 intended to note there are no estimates (in kg) of direct releases of sulfate, total mercury, and methyl mercury to the environment from the project or methods for how these releases will be estimated in the Mercury Study Plan. WSTD notes that some estimates of sulfate releases are provided in the GBP IAAC MeHg Model Hutchinson presentation (dated July 11, 2025), however, WSTD requests estimates of direct releases of sulfate, organic carbon, mercury, and methylmercury be provided (in kg) in the Mercury Study Plan effects assessment.	The mercury model will use sulphate loading values from effluent as estimated by WSP. Estimates of direct releases of sulphate, organic carbon, mercury and methylmercury will be provided in the Impact Statement final reporting.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		WSTD reiterates the request in IAAC-16 for peer reviewed references from the scientific or grey literature to demonstrate the previous successful application of GoldSim to predict mercury and methylmercury (or another contaminant) levels for an industrial development.	Great Bear Resources' best understanding is that there is no industry standard or precedent for the application of predictive modelling tools specifically to forecast methylmercury concentrations in the context of sulphate loadings and Impact Assessments. As discussed in our previous response, appropriate modelling efforts have been proposed as part of the Mercury Study Plan. The proposed GoldSim and additional site-specific methylmercury production model are based on relationships identified in site-specific monitoring data as well as those documented in the peer-reviewed literature. GoldSim is widely applied across the mining industry and accepted by regulators for water balance and water quality modelling to support environmental effects assessments (e.g., Townley, L.R. 2025; Pope and Dutton, 2016; Usher et al., 2010). While peer-reviewed / grey-paper examples specific to use of these models to support Impact Assessments for methylmercury are not available, the proposed model application as part of the Mercury Study Plan follows best practice approaches for environmental effects assessment, applying conservative assumptions and transparent documentation to support review. As per Great Bear Resources' previous response in this regard, the combined modelling efforts to predict mercury and methylmercury concentrations depends on the integrity of site-specific data and embedded assumptions and relationships rather than the software itself. Similarly, the proposed bioaccumulation modelling utilizes site-specific baseline mercury and methylmercury data in surface water and fish to predict concentration changes in fish. The calculated site-specific bioaccumulation factors (BAFs) for surface water to fish used for human consumption (i.e., Walleye, Northern Pike and lake Whitefish) implicitly incorporate existing food web components and mercury fate and transport relationships, such as, sediment, porewater, invertebrates (e.g., zooplankton) and fish that interact and are consumed by local communities for recreation and/or subsistence.
		Finally, WSTD notes the proponent states that "approximately 600 surface water quality samples for sulphate and mercury since 2020, with more than 500 of those samples collected within the last three years". However, only the data analyzed using detection limits of approximately 0.5 ng/L and total and dissolved ultra-low methylmercury with detection limits of approximately 0.02 ng/L will be useful for the modelling. According to the GBP IAAC Tech Memo Mercury Presentation (dated Jul	Baseline data for important co-factors influencing mercury and methylmercury production (e.g., sulphate, dissolved organic carbon, water temperature) will be used to support the Mercury Study Plan and predictive modelling. As the reviewer notes above, modelling will largely target use of ultra-low detection data for mercury and methylmercury. That said, mercury concentrations measured using standard methodologies (e.g., Cold Vapor Atomic Absorption Spectroscopy [CVAAS], detection limits ~5 ng/L) are also scientifically valid and

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		11, 2025), WSTD understands there are 289 ultra-low detection total mercury samples and 277 methyl mercury samples that were analyzed with these detection limits, however, WSTD requests confirmation of this understanding as well as further information on the number and location of the sampling sites, including reference/control sites (see also WSTD comments below for Slide 5 of the presentation).	provide useful information when results are above detection limits. These data will be used to supplement the ultra-low detection dataset, increasing the overall quantity of reliable mercury information, and strengthen the predictive modelling foundation. Used appropriately, both ultra-low and standard detection datasets are informative and defensible for use in this assessment. Water quality analyses have been conducted using industry-approved methods at accredited laboratories (Canadian Association for Laboratory Accreditation). It is important to clarify that while ICP-MS has been used for total metal scans, with a higher detection limit, it has not been employed for mercury quantification since 2021. Starting in 2022 mercury monitoring has included the following analyses: Standard mercury by Cold Vapor Atomic Absorption Spectroscopy (CVASS) with reported detection limits of approximately 5 ng/L Ultra-low mercury by Oxidation, Purge, and Trap, and Cold Vapor Atomic Florescence Spectroscopy (CVAFS) at specialized laboratories with reported detection limits of approximately 0.04 ng/L Methylmercury by Distillation, Aqueous Ethylation, Purge and Trap, and CVAFS at specialized laboratories with reported detection limits of approximately 0.0035 ng/L. These analytical methods and the reported detection limits reflect industry best practices and are appropriate to characterize the existing water quality conditions with a high confidence. These detection limits generate observations both above and below detection limits, depending on the groundwater well or surface water sampling location. The baseline surface water quality program, including rationale for stations included, sampling frequency, and monitored parameters can be found in Table 3-1 of the Water Quality Baseline Report. Baseline results to date, including counts for each parameter, can be found in Table 4-1 through Table 4-8 of the Water Quality Baseline Report.
IAAC-17	Page 17, Section 3.4.4 Methods for Forecasting Future Condition	WSTD reiterates recommendations provided above in IAAC-13 and IAAC-14 and those below on Slide 12 of the GBP IAAC Tech Memo Mercury Presentation (dated July 11, 2025) that 1. all biological samples that were analyzed for mercury and methylmercury be analyzed for carbon and nitrogen analysis to enhance the baseline dataset and for use in modelling, 2. more detailed information on sample sizes for each species at each location and each sampling time be provided with sample sizes of n=10 of a few sentinel monitoring species rather than sampling so many different species, 3. BAFs be calculated from water to	1. Carbon and nitrogen isotopes were analyzed in a limited dataset (e.g., periphyton) and can be made available with the mercury study report and impact statement. 2. Sample sizes for all biota, surface water, and sediment for all years and waterbodies are presented in Table 1 and Table 2 includes a more detailed summary of the fish sampling program between 2022 to 2024, which are provided above in the response to IAAC-13. The baseline surface water quality program, including rationale for stations included, sampling frequency, and monitored parameters can be found in Table 3-1 of the Water Quality Baseline

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		plankton and from plankton to fish and be compared both to the literature and across different sampling sites.	Report. Baseline results to date, including counts for each parameter, can be found in Table 4-1 through Table 4-8 of the Water Quality Baseline Report. Similar to the Water Quality Baseline Report, the Aquatics Baseline Report (2021-2024) contains a list sampling stations, locations, frequency as well as the media and parameters sampled 3. A mathematical model was developed to explore relationships between plankton (benthic invertebrates and zooplankton) and surface water; however, only benthic invertebrates were included due to insufficient zooplankton data. Scatter plots and regression analysis indicated a weak relationship between plankton and surface water concentrations. We are still exploring relationships between invertebrates and fish, but BAFs have been derived from surface water to large bodied fish, and this data is presented in Slide 12 of the GBP IAAC Tech Memo Mercury Presentation as well as the mercury study report. Scatter plots are presented in Attachment A, and full data in the mercury study report.
WSTD also offers the following notes on proponent responses to other government department comments, for consideration			
IAAC-3	Page 13, Section 3.2 Spatial and Temporal Boundaries	WSTD notes the expansion of the predictive modelling area for the Mercury Study Plan. WSTD also notes the reference to historical fish mercury data being used in the bioaccumulation and risk exposure modelling for some downstream sites in the Memo Great Bear Gold: Proposed Fish Bioaccumulation Module and Risk/Exposure Module Approach (dated June 27, 2025). WSTD recommends the expansion of the baseline monitoring area for mercury and ancillary parameters in water, sediment and biota also to provide current data for the predictive model (rather than values from the literature) and as baseline for the future monitoring program, as described in more detail in WSTD comments above and below.	The downstream monitoring aquatics program completed from September 20 to 26, 2025, collected system-specific information to define key characteristics in the downstream lakes that contribute to mercury methylation by sulphate addition. The data will be used in pending water quality module mercury predictive model refinements (e.g.., sulphate and mercury flux calculations). The program sampled sediment, porewater and surface water from the epilimnetic (shallow) and hypolimnetic (deep) zones in 7 representative lakes of the 23 downstream aquatic segments. Particularly important for better defining downstream aquatic system dynamics as they relate to methylmercury stimulation, are the sulphate, mercury and methylmercury concentrations in porewater of the upper biologically active layer of sediment (i.e., the primary layer of exchange between porewater and surface water). Sediment in the epilimnetic and hypolimnetic zones were characterized physically and with a suite of chemistry parameters including ultra-low level mercury, methylmercury and sulphate. Hypolimnetic sediment has consistent and long-term methylmercury production potential in most cases, but some studies in freshwater lakes have shown short-term high methylmercury production in epilimnetic sediment where conditions are suitable.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
			Characterizing sulphate and mercury in surface water of the zones is also important to understand background conditions and flux rates, and was conducted where lake overturn (vertical mixing) had not occurred. Where overturn occurred, sampling focussed on the photic zone where the highest parameter concentrations occurred, associated with recent overturn and phytoplankton at the time of the year sampling was conducted. The following matrices and analytes were sampled: Surface water: From hypolimnion and epilimnion (where lakes were stratified) or 2x Secchi depth (where lakes were mixed): – Low level total mercury (bulk and dissolved) – Low level methylmercury (bulk and dissolved) – Dissolved sulphate and sulphide – Dissolved and total organic carbon – Dissolved and total metals – Major ions, general chemistry – Temperature, dissolved oxygen, conductivity, pH, ORP (all in situ). Sediment: From epilimnetic (where present) and hypolimnetic zones, by coring; cores sectioned into upper biologically active layer and lower legacy layer: – Low level total mercury – Low level methylmercury – Sulphate and sulphide – Total organic carbon – Total metals – Major ions, general chemistry – Bulk density, % moisture, porosity.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
			POREWATER: From epilimnetic (where present) and hypolimnetic zones, from sediment cores of upper biologically active layer and lower legacy layer: – Low level total mercury (dissolved) – Low level methylmercury (dissolved) – Dissolved sulphate and sulphide – Dissolved and total organic carbon – Dissolved and total metals – Major ions, general chemistry. Data from the program will be compiled, interpreted and applied to model updates planned in November / December, 2025. Finally, WSP completed some fish sampling work to coincide with the Hutchinson sampling locations, where possible, to help validate the fish BAFs assumed in the Bioaccumulation Module, with analyses results pending. Available information will be considered in the final Mercury Study Report where possible.
IAAC-5	Page 13, Section 3.2 Spatial and Temporal Boundaries	WSTD recommends the proponent provide quantitative scientific evidence that methylmercury production will not be enhanced more than 20 km downstream of the proposed discharge location to support the proposed regional study area boundary. WSTD recommends this evidence include calculations estimating the release and downstream export of released sulfate and its impacts on methylmercury production accompanied by literature references be provided to support the proposed boundary. Similarly, WSTD recommends the proponent provide the requested figure identifying the project area, local study area, and regional study areas, as well as the locations of known Indigenous communities/reserves, cabins, camps, cultural sites, or water-based traditional land resource use activities.	The extent of methylmercury production and downstream transport is not a pre-determined input to the assessment but rather will be a finding of the Mercury Study Plan and predictive modelling. Models will be iterative in nature and will extend as far downstream as is appropriate to capture and evaluate potential effects related to the Great Bear Project (Project). Final study area boundaries for the Mercury Study will be defined by Hutchinson, as an outcome of iterative modelling efforts as described above, and, at minimum, will encompass the Project discharge location to the Chukuni River, the local receiving environment, and an extended study area sufficient to address potential downstream effects from bioaccumulation of mercury and methylmercury. A figure showing this study area will be included in the Mercury Study Report.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
			Figures identifying the Project Area, local and regional study areas, along with important communities / shelters (e.g., homes, cabins) and traditional land resource areas (e.g., cultural sites, hunting areas) will be provided in the HHERA final reporting within the Impact Statement.
IAAC-23	Page 6, Section 2.2.2 Fish and Fish Habitat	WSTD recommends the proponent conclusively demonstrate the values they plan to use from *Chan et al. 2014* and *Chan et al. 2011*, rather than completing the dietary and food security survey requested, are representative of and still applicable to the specific communities that will be potentially impacted by the proposed project. For example, WSTD recommends information demonstrating that the specific communities potentially impacted by the project were assessed as part of the *Chan et al. 2014* and *Chan et al. 2021* and/or that the dietary information is applicable to this specific region be provided. Perhaps most importantly, since MeHg is already elevated in the water of parts of the study region (i.e. Dixie Creek) and fish (i.e., walleye in Pakwash Lake and Northern Pike in Oak and Maynard lakes), WSTD suggests information on where, how often, and what type of fish people consume be included in the Human Health Risk Assessment (HHRA). Further, WSTD notes the proponent approach to the use of consumption rates, largely based on *Chan et al. 2014* and *Chan et al. 2011*, to calculate risks for the heavy and average consumer using Health Canada mercury toxicity reference values (TRV). WSTD also notes the HHRA will use TRVs from Health Canada to calculate hazard quotients (HQs). Given Health Canada's guideline for allowable mercury intake (provisional tolerable daily intake or pTDI in ug of mercury consumed per day per kg of human body weight) is less restrictive that the US Environmental Protection Agency (EPA) and other international regulatory agencies, WSTD recommends the proponent calculate and report hazard quotients using Health Canada values, EPA values of 0.1 µg of mercury/kg of human body weight/day, and values of 0.05 µg/kg/day suggested by the newest science (from Grandjean and Budtz-Jorgensen 2007: Total Imprecision of Exposure Biomarkers: Implications for Calculating Exposure Limits - PMC).	Relevant information from available Traditional Knowledge and Land Use (TKLU) studies completed by local Indigenous communities for the Project will be compared to the information available in the Chan et al. 2014 studies for Ecozone 1 in Ontario to validate the assumptions for use in the HHRA. The TKLU information available to date confirms that walleye, northern pike and lake whitefish are preferred fish species consumed from the area, but consumption rate information is limited for human health risk assessment. This comparison will be presented in the final Mercury Study Report with rationale for the consumption rates chosen for use in the HHRA. Similar to the toxicological summary presented in the draft Mercury Study Report, a toxicological review will be included in the final report that discusses available TRVs, and their basis, from a variety of sources, including but not limited to the sources listed above. An appropriate TRV will be chosen from the toxicological review, in accordance with Health Canada guidance. Sensitivity analyses may be presented as appropriate.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
Comments on Key Issues Briefing (July 17, 2025) Documents ***Water Science and Technology Directorate (WSTD), Environment and Climate Change Canada*** **WSTD Comments on GBP IAAC TechMemo Mercury Presentation (dated July 11, 2025)**			
Slide 5 Baseline Studies – Surface Water Quality		Noting the Mercury Study Plan stated total and dissolved ultra-low mercury with detection limits of approximately 0.5 ng/L and total and dissolved ultra-low methylmercury with detection limits of approximately 0.02 ng/L, and per WSTD comments on IAAC-16 above, WSTD requests confirmation that the 289 ultra-low detection mercury samples and 277 methyl mercury samples described on slide 5 were analyzed with these detection limits.	Yes, confirmed. As described in the Mercury Study Plan, ultra-low detection mercury samples were analyzed via oxidation, purge, and trap, and cold vapour atomic florescence spectroscopy (CVAFS) with a reported detection limit of approximately 0.04 ng/L. Methylmercury samples were analyzed by distillation, aqueous ethylation, purge and trap, and CVAFS with a reported detection limit of approximately 0.0035 ng/L.
Slide 6 Baseline Studies – Surface Water Quality Results		The slide states that total mercury and methyl mercury are very low in Pakwash Lake and the Chukuni River, however WSTD notes the methyl mercury values are not actually “very low” with several sites having average values ~0.05 ng/L suggesting that there is some methylmercury production in the system. Noting that the tables on Slide 6 provide data for only six sites, WSTD requests clarification of how many sites are being analyzed for the ultra-low total and methylmercury, at what temporal frequency, and how far downstream (in kms) of the proposed project site does the mercury monitoring extend?	We respectfully disagree with the reviewer. Great Bear Resources maintains that methylmercury concentrations in Pakwash Lake and the Chukuni River are appropriately characterized as very low. Regardless, the primary concern for the English-Wabigoon River system is the biomagnification of mercury in the aquatic food chain. Methylmercury occurs naturally at low levels in aquatic systems due to background biogeochemical processes. Although measured values remain far below levels of concern for aquatic life, mercury and methyl mercury are being carried forward for human health risk assessment in the Mercury Study due to the potential for biomagnification in fish. Over the course of the baseline program, 30 monitoring stations were targeted for ultra-low level mercury and methylmercury monitoring. The majority of surface water quality sampling completed has been conducted monthly, when flow was present and the sampling station could be safely accessed. Note that some unnamed watercourses and small tributaries could only be sampled seasonally and / or on a quarterly basis for ultra-low mercury and methylmercury due to site accessibly constraints and because flow was seasonally absent or frozen to bottom. A list of stations including rationale, frequency and monitored parameters are provided in Table 3-1 of the Water Quality Baseline Report.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		Noting the WSTD comment on IAAC-3 above, WSTD reiterates the recommendation that the spatial boundary for baseline and post-disturbance monitoring also be extended so that the model is based on real data, including ultra low total and methyl mercury measurements in water. Per WSTD comment on IAAC-16 above, WSTD also requests the proponent identify which reference sites are being analyzed for ultra low total and methyl mercury? Further, WSTD requests review of the data for the reference sites (as part of reporting of results for monitoring and modelling studies) to ensure data is comparable to the downstream/potentially impacted sites.	The Mercury Study Plan stated that both total and dissolved mercury and methylmercury samples have been and will continue to be collected. WSTD requests review of the data (as part of reporting of results for monitoring and modelling studies) on how the filtered or dissolved values compare to the total values for both total and methyl mercury as well as the filtration methods for generating dissolved total and methylmercury in water. Please refer to the response provided for IAAC-5. Yes, data and corresponding discussion will be provided as part of reporting of results for baseline monitoring and modelling studies, as requested by the reviewer.
Slide 8 Baseline Studies – Sediment Mercury Results		WSTD reiterates the Directorate comment in IAAC-12 noting the surface sediment samples being collected using sediment grabs have limited use for tracking temporal changes in mercury in lake and river sediment after development and dated lake sediment cores should be collected from downstream lakes.	Additional lake sediment coring was completed in September 2025 to help fill the current gap and expand the spatial coverage of the baseline sampling program as it relates to the mercury study, particularly in the downstream lakes to allow for spatial and temporal monitoring of potential impacts to the downstream environment. The continuation and nature of future monitoring programs will be considered after the predictive surface water results are reviewed with consideration of the potential magnitude of change and/or risks. Post-development monitoring design should be commensurate with predicted changes and validating data that is meaningful for traditional and contemporary use of country foods and aquatic systems.
Slide 9 Baseline Studies – Fish Tissue Mercury		WSTD reiterates Directorate recommendation in IAAC-3 that the spatial boundary for baseline and post-disturbance monitoring also be extended so that the model is based on real data, including mercury measurements in fish and biota. WSTD also reiterates the Directorate request for Slide 6 above regarding identification of reference sites for food web and fish mercury to ensure the data is comparable to downstream/potentially impacted sites.	Noted - additional baseline studies have been completed in 2025 to capture additional on site and downstream baseline conditions. The downstream monitoring aquatics program completed in September and October, 2025, collected system-specific information to define key characteristics in the downstream lakes that may contribute to mercury methylation by sulphate addition. The data will be used in pending water quality module mercury predictive model refinements (e.g., sulphate and mercury flux calculations). The program sampled sediment, porewater and surface water from the epilimnetic (shallow) and hypolimnetic (deep) zones in 7 representative lakes of the 23 downstream aquatic segments. The Aquatics far field program collect fish tissue samples for chemical analysis, benthic invertebrate community samples, water and sediment quality samples to capture baseline conditions in the downstream environment.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
			The results of the additional baseline studies will be included in the final mercury study report, where available, and will be applied to future monitoring comparisons.
Slide 10 Local (site-specific) and Regional Fish Concentration Data		WSTD notes that mercury in some of the predatory fish are already within the Canadian fish commercial sale limit of 0.5 µg/g wet weight in some of the lakes (i.e., walleye in Pakwash Lake and Northern Pike in Oak and Maynard lakes). Any additional increases in fish mercury may place the health of fish, birds and human consumers at risk. WSTD notes the importance of capturing accurate dietary information/consumption patterns for the HHRA (see WSTD comments for IAAC-23 above comments below for Slide 12).	It is acknowledged that baseline mercury concentrations in some predatory fish are elevated in some waterbodies in this area as well as in other areas in Ontario and Canada. This is reflected in the consumption advisories that MECP has issued for some fish in some lakes in the region as well as across Ontario. The Mercury Study is intended to assess whether sulphate contributions from the Project are predicted to result in methylation of mercury in the aquatic environment that would potentially result in measurable increases in fish concentrations that could result in an elevated risk to fish consumers in the area. See the above response that indicates how consumption rates used in the HHRA will be determined. Note that where assumptions are required in the HHRA, they will tend to be conservative and an associated uncertainty analyses will be provided to assess the impact of these assumptions.
Slide 12 Fish Bioaccumulation Factor (BAF)		WSTD requests information on how the BAFs were calculated (e.g., using the average concentration of methylmercury in water and fish at individual sites?) and clarification on what the samples sizes presented on slide 12 refer to (i.e., n=4-8)? Are these the number of sites used to estimate the BAFs, or the number of individual water and fish measurements used to estimate the BAFs presented on the slide?	This information will be provided in the Mercury Study Report, as part of documentation and interpretation of baseline results and results from predictive modelling efforts. In brief, surface water methylmercury concentrations will be reported by sampling station (e.g., for the Chukuni River, stations R-REF, CR-DS, CR-FDP) and summary statistics will be calculated accordingly. Timeseries plots, showing individual data observations, will also be included in reporting. Fish tissue samples were similarly grouped by sampling location, species, and year of collection. BAFs were calculated for individual fish species within a specified size range, at each location and sampling year, using the average concentration in water and corresponding fish tissue. The reported BAFs represent the average of these individual BAF values for each species. The sample sizes (n = 4-8) refer to the number of individual BAF values calculated for each species across locations and years. (e.g., northern pike: 8, walleye: 4, and forage fish: 7). These were averaged to produce the final BAFs presented on Slide 12.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		WSTD reiterates the Directorate recommendation in IAAC-13 and IAAC-14 above regarding the minimum sample size of n=10 required for each species at each sampling location and time (to allow for basic statistical analysis), as well as the request for more details for the information presented to date by the proponent on sample sizes for each species at each location and each sampling time. WSTD recommends that where the minimum sample size for each species has not been achieved, additional baseline sampling be considered to achieve the recommended sample size (i.e., n=10 for each species at each location at each sampling time, with focus on 1-2 predatory fish species and 1-2 forage fish species). WSTD notes that larger samples sizes (n=10) are needed to determine, for example, if BAFs vary among sites including among the reference/control sites and sites downstream of the proposed project.	Site-specific total mercury and methylmercury data for predatory fish (i.e., northern pike, walleye) were collected from the Chukuni River from 2022 to 2024 (IAAC #13; Table 2). Sample sizes were limited by the permit limits and availability of fish during each sampling event. Due to the inability to obtain a permit to sample Lake Whitefish (only one sample was analyzed from bycatch), forage fish (yellow perch and white sucker) were used as a supplemental species to characterize lake whitefish concentrations. These data were used to calculate site-specific BAFs between surface water and fish. Sample sizes for each location in the Chukuni River are presented below. This data will also be available in the Mercury Study Report and Impact Statement. Additional sampling is planned for fall 2025 and results will be considered within the final Mercury Study Report and potentially used to augment the baseline data for future use in environmental monitoring.
		Finally, WSTD requests that BAFs be calculated between water and plankton and between plankton and fish and compared to literature values and among different sampling sites to ensure a full picture of the movement of mercury through the food web prior to the development of the proposed project.	Please see response to IAAC-17 above.
Slide 14: HHRA Modelling		Slide 14 states “The HHRA will use toxicity reference values (TRVs) from Health Canada to calculate hazard quotients (HQs).” Building on WSTD recommendation in IAAC-23 above, Health Canada’s guideline for allowable mercury intake (pTDI in µg of mercury consumed per day per kilogram of human body weight) is less restrictive than the US Environmental Protection Agency (EPA) and other international regulatory agencies. The US EPA updated their acceptable intake values in 2001 (see EPA I. Chronic Health Hazard Assessments for Noncarcinogenic Effects I.A. Reference Dose for Chronic Oral Exposure (RfD). 2001) to 0.1 µg of mercury/kg of human body weight/day based on toxicological or human health exposure studies showing impairments in children at lower levels of mercury exposure than had been reported earlier (Grandjean et al. 1997: PII: S0892-0362(97)00097-4). For adults, Health Canada maintains a pTDI of 0.47 µg/kg/day which is outdated based on best available science and other countries. Newest human health exposure studies (Grandjean and Budtz-Jorgensen 2007: Total	Please see response to IAAC-23 above.

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
		Imprecision of Exposure Biomarkers: Implications for Calculating Exposure Limits - PMC) suggest that that there was imprecision in the monitoring data used to formulate the US EPA's reference dose leading to an overestimate of 50% and proposed that a revised value of 0.05 µg/kg/day (or 0.58 µg Hg/g in human hair) would be more appropriate. Per Directorate comments on IAAC-23 above, WSTD therefore recommends the proponent calculate and report hazard quotients using Health Canada values, EPA values of 0.1 µg of mercury/kg of human body weight/day, and values of 0.05 µg/kg/day suggested by the newest science (from Grandjean and Budtz-Jorgensen 2007: Total Imprecision of Exposure Biomarkers: Implications for Calculating Exposure Limits - PMC).	
WSTD Comments on the Memo Great Bear Project: Proposed Fish Bioaccumulation Module and Risk/Exposure Module Approach (dated June 27, 2025)			
Table 2: Measured Average Mercury Concentrations in Surface Water for Dixie Creek (ng/L)		WSTD notes the concentrations of MeHg are very high in Dixie Creek (Table 2). WSTD requests information on the concentrations of MeHg in biota in Dixie Creek, including plankton and fish, noting increases in MeHg because of the project could result in very high Hg concentrations in this area that are then exported downstream (i.e., in the case of water).	Measured methylmercury concentrations in Dixie Creek (25^{th} to 75^{th} percentile were 0.065 to 0.2 ng/L) appear higher when compared to similar statistical parameters downstream at Chukuni River (25^{th} to 75^{th} percentile were 0.034 to 0.058 ng/L). There are several attributes that could explain why concentrations are potentially higher in the creeks and unnamed watercourses within the area, such as, smaller water volumes and flow rates, greater influence from surface runoff and organics. The measured concentrations of mercury in biota (e.g., invertebrates and fish) in Dixie Creek and other waterbodies will be provided in the Impact Statement and Mercury Study for further evaluation. For added perspective, the measured periphyton methylmercury concentrations in Dixie Creek (25^{th} to 75^{th} percentile were 0.00061 to 0.0022 mg/kg) were similar to concentrations in the Chukuni River (25^{th} to 75^{th} percentile were 0.0012 to 0.0021 mg/kg). Similarly, the measured benthic invertebrate methylmercury concentrations were similar in Dixie Creek and Chukuni River.
Table 4: Availability of Regional Fish Tissue Hg Concentrations from		WSTD notes fish data has been collected from sections of the Chukuni River only, with the data identified at other sites being ~10-20 years old. WSTD reiterates the Directorate recommendations in IAAC-3 and IAAC-13 above that additional baseline water and biota sampling be conducted downstream at a minimum of 2-3 sites, for inclusion in the modelling as well as in the future monitoring program, with n=10 for each fish species at each site to effectively assess temporal changes in fish	Fish could not be sampled in 2022 – 2024 at Pakwash Lake as the license to collect fish for scientific purposes was not approved by the Ministry of Natural Resources. Due to this, regional fish data were obtained from MECP (2018). The number of samples available for regional fish data obtained from the MECP are presented in the table below. In 2025, an additional far field lakes sampling program was completed by WSP

<table>
<tr><th>Comment ID</th><th>Reference to Draft Mercury Study Plan</th><th>Comment</th><th>Great Bear Resources Response</th></tr>
<tr><td>within the Modelling Segments used in the Predictive MeHg Water Quality Model</td><td></td><td>mercury levels.</td><td>to provide additional baseline data. This sampling program targeted Pakwash, Camping Lake, Webb Lake, Ball Lake and Indian Lake, for large-bodied fish community metrics and tissues, as well as benthic invertebrate taxonomy. Water and sediment quality sampling was also completed by Hutchinson in Pakwash Lake, Camping Lake, Wegg Lake, Oak Lake, Maynard Lake, Ball Lake and Indian Lake.

<table>
<tr><th>Waterbody</th><th>Year</th><th>Fish Species</th><th>Number of samples</th></tr>
<tr><td>Pakwash Lake</td><td>2014</td><td>Northern Pike</td><td>5</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>6</td></tr>
<tr><td>Wegg Lake</td><td>2013</td><td>Northern Pike</td><td>12</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>15</td></tr>
<tr><td>Oak Lake</td><td>2006</td><td>Northern Pike</td><td>16</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>15</td></tr>
<tr><td></td><td></td><td>Forage Fish (All sizes)</td><td>20</td></tr>
<tr><td>Maynard Lake</td><td>2006</td><td>Northern Pike</td><td>19</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>17</td></tr>
<tr><td></td><td></td><td>Forage Fish (All sizes)</td><td>20</td></tr>
<tr><td>Tide Lake</td><td>2014</td><td>Northern Pike</td><td>4</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>4</td></tr>
<tr><td>Ball Lake North Basin</td><td>2010 - 2016</td><td>Northern Pike</td><td>20</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>46</td></tr>
<tr><td></td><td></td><td>Forage Fish (All sizes)</td><td>60</td></tr>
<tr><td>Ball Lake South Basin</td><td>2010 - 2016</td><td>Northern Pike</td><td>20</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>51</td></tr>
<tr><td></td><td></td><td>Forage Fish (All sizes)</td><td>55</td></tr>
<tr><td>Indian Lake</td><td>2014</td><td>Northern Pike</td><td>11</td></tr>
<tr><td></td><td></td><td>Walleye</td><td>12</td></tr>
<tr><td></td><td></td><td>Forage Fish (All sizes)</td><td>17</td></tr>
</table>
</td></tr>
</table>

Comment ID	Reference to Draft Mercury Study Plan	Comment	Great Bear Resources Response
Table 6: Summary of Calculated Site-Specific Surface Water to Fish Mercury BAFs for Total Mercury (THg) and MeHg for the Chukuni River		WSTD reiterates the Directorate request in Slide 12 above that the proponent provide additional details on the sample sizes used to calculate the Bioaccumulation Factors (BAFs). What do the samples sizes refer to (i.e., n=4-8)? Are these the number of sites used to estimate the BAFs, or the number of individual water and fish measurements used to estimate the BAFs presented on the slide? Per the WSTD recommendation for IAAC-13 and IAAC-14 above, a minimum sample size of n=10 is required from each species at each sampling location and time to allow for any basic statistical analysis. Finally, per the comments on Slide 12 above, WSTD requests the BAFs be calculated between water and plankton and between plankton and fish and compared to literature values and among different sampling sites to get a fuller picture of the movement of mercury through the food web prior to the potential development.	See response to IAAC-17 and Slide 12 above.
Section 3.2 Risk/Exposure Module – HHRA Model Description for MeHg Exposure from Fish Consumption		WSTD reiterates Directorate suggestion in IAAC-23 and Slide 14 above including the suggested dietary surveys to assess where, how often, and what type of fish people consume for the HHRA (rather than literature values from Chan et al. 2014 and 2021), noting the already high Hg levels in water and fish in parts of the study region, and reiterates the suggestion to use Health Canada values, EPA values of 0.1 µg of mercury/kg of human body weight/day, and values of 0.05 µg/kg/day per the most recent science (from Grandjean and Budtz-Jorgensen 2007: Total Imprecision of Exposure Biomarkers: Implications for Calculating Exposure Limits – PMC) for the calculation and reporting of hazard quotients.	Please see response to IAAC-23 above.

References:

- Chan, L., Receveur, O., Batal, M., David, W., Schwartz, H., Ing, A., Fediuk, K., Black, A., & Tikhonov, C (2014). First Nations Food, Nutrition and Environment Study (FNFNES): Results from Ontario (2011/2012). Ottawa: University of Ottawa, 2014. Print.
- Pope, J., Dutton, A. 2016. Geochemistry for mine drainage predictions at the Te Kuha coal deposit. Report prepared by CRL Energy Ltd –March 2016.
- Townley, L.R. 2025. Twenty-five Years of Evolution of Integrated Water Management and Integrated Water Balance Modelling at Mine Sites. IMWA 2025. 2025 International Mine Water

Association Conference – Time to Come. – July 2025

- Usher, B., Strand, R., Strachotta, C., Jackson, J. 2010. Linking fundamental geochemistry and empirical observations for water quality predictions using Goldsim. IMWA, Wolkersdorfer. Ch. and Freund, A., p 313-316, Sydney, Nova Scotia, Canada – January 2010

ATTACHMENT A: Mercury and Methylmercury Data

Table 1: Dixie Creek Fish Data

Waterbody	Species	Year	Sample ID	Mercury (mg/kg)	Methylmercury (mg/kg)	% Methylmercury
Screening levels:	MOECC/HC			0.5	-	-
	MOECC			1.8	-	-
	CCME			-	0.033	-
Dixie Creek	Northern Pike	2022	DC03-GN3-F1-NRPK	0.4	0.21	51%
			DC04-GN1-F1-NRPK	0.21	0.12	56%
			DC04-GN1-F2-NRPK	0.3	0.14	48%
			DC04-GN1-F3-NRPK	0.28	0.1	37%
			DC04-GN2-F4-NRPK	0.48	0.21	43%
			DC04-GN2-F5-NRPK	0.28	0.14	50%
			DC04-GN3-F6-NRPK	0.39	0.21	55%
			DC04-GN3-F7-NRPK	0.4	0.47	118%
			DC04-GN3-F8-NRPK	0.3	0.33	112%
			DC04-GN4-F9-NRPK	0.31	0.39	128%
			DC04-GN4-F10-NRPK	0.37	0.52	143%
		2023	DC-02-GN1-F1-NP	0.02	0.025	102%
			DC-02-GN1-F2-NP	0.04	0.033	74%
			DC-02-GN2-F4-NP	0.07	0.049	72%
			DC-03-GN1-F1-NP	0.11	0.083	75%
			DC-03-GN1-F2-NP	0.1	0.06	60%
			DC-04-GN1-F1-NP-L	0.81	0.42	51%
			DC-04-GN1-F2-NP-L	0.37	0.23	62%
			Count	18	18	18
			Mean	0.29	0.21	74%
			Median	0.3	0.18	61%
			Minimum	0.02	0.025	37%
			Maximum	0.81	0.52	143%
			25th Percentile	0.14	0.09	51%
			75th Percentile	0.39	0.31	96%
			95th Percentile	0.53	0.48	131%
			Standard Deviation	0.2	0.2	32%
	White Sucker	2022	DC04-GN4-F11-WHSK	0.103	0.131	127%
		2023	DC-02-GN1-F3-WS	0.037	0.033	88%
			Count	2	2	2
			Mean	0.07	0.082	108%
			Median	0.07	0.082	108%
			Minimum	0.037	0.033	88%
			Maximum	0.1	0.13	127%
			25th Percentile	0.054	0.057	98%
			75th Percentile	0.087	0.106	117%
			95th Percentile	0.1	0.13	125%
			Standard Deviation	0.047	0.07	28%
	Yellow Perch	2023	DC-02-GN2-F5-YP	0.034	0.025	73%
			DC-02-GN2-F6-YP	0.037	0.023	63%
			DC-04-GN1-F3-YP	0.13	0.083	65%
			DC-04-GN1-F4-YP	0.11	0.066	58%
			DC-04-GN1-F5-YP	0.19	0.11	55%
			Count	5	5	5
			Mean	0.101	0.0606	63%
			Median	0.114	0.0662	63%
			Minimum	0.0339	0.0233	55%
			Maximum	0.194	0.106	73%
			25th Percentile	0.037	0.025	58%
			75th Percentile	0.1	0.1	65%
			95th Percentile	0.2	0.1	72%
			Standard Deviation	0.0672	0.0362	7%

Notes:

1. MOECC; Ministry of the Environment, Conservation and Parks

2. HC; Health Canada

2. CCME; Canadian Council of Ministers of the Environment

Metal concentration values are expressed in mg/kg wet weight.

Values below the detection limit were set at the detection limit for summary statistics

5. Rose shaded values indicate methylmrcury concentrations that exceed the CCME guideline for the protection of wildlife consumers of aquatic biota

7. Light yellow shaded values indicate concentrations that exceed the MOECC guideline developed for women of child-bearing age and children and the HC maximum contaminant concentration

6. Gray shaded values indicate concentrations that exceed the Ontario consumption guidelines developed for the general population

Table 2: Dixie Creek Level 1 Organism Data

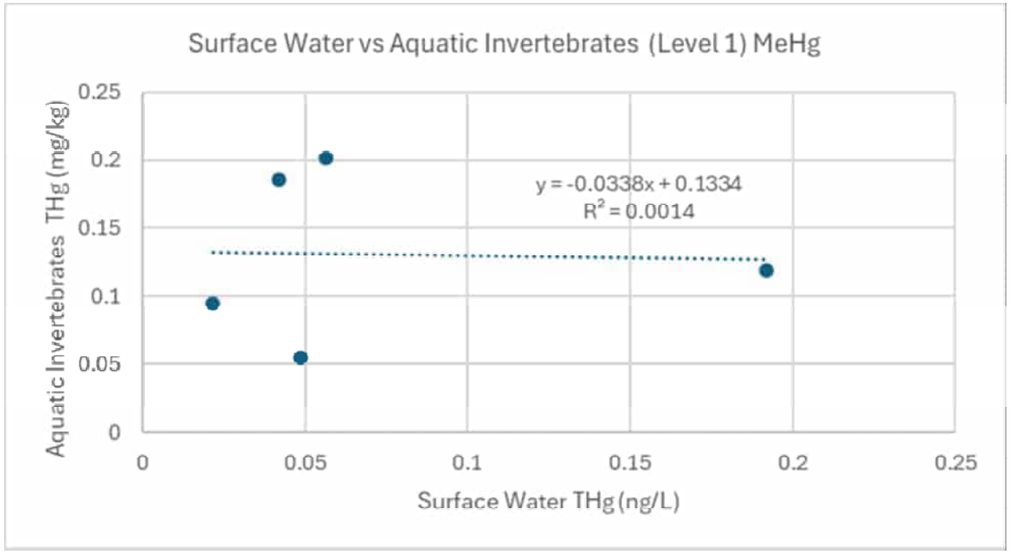
Waterbody		Sample ID	Date	Mercury (mg/kg)	MethylImercury (mg/kg)	% MethylImercury
Dixie Creek	Benthic Invertebrates	DC-03-AES-COMP1	17-Sep-24	0.17	0.16	94%
		DC-03-AES-COMP2	17-Sep-24	0.2	0.19	96%
		DC-03-AES-COMP3	17-Sep-24	0.2	0.2	98%
		DC-03-LET-COMP1	17-Sep-24	0.14	0.14	97%
		DC-03-LET-COMP2	17-Sep-24	0.091	0.086	94%
		DC-01-AES-COMP1	15-Sep-24	0.13	0.11	85%
		DC-01-AES-COMP2	15-Sep-24	0.084	0.087	104%
		DC-01-AES-COMP3	15-Sep-24	0.1	0.1	102%
		DC-01-AES-COMP4	15-Sep-24	0.082	0.083	101%
		DC-01-AES-COMP5	15-Sep-24	0.079	0.072	92%
		DC-01-LET-COMP1	15-Sep-24	0.066	0.064	97%
		DC-02-AES-COMP1	18-Sep-24	0.11	0.11	98%
		DC-02-AES-COMP2	18-Sep-24	0.13	0.12	89%
		DC-02-AES-COMP3	18-Sep-24	0.094	0.1	105%
		DC-02-AES-COMP4	18-Sep-24	0.089	0.09	105%
		DC-02-LET-COMP1	18-Sep-24	0.12	0.11	98%
		DC-02-LET-COMP2	18-Sep-24	0.09	0.09	99%
		DC-02-LET-COMP3	18-Sep-24	0.12	0.13	102%
		DC-04-AES-COMP1	19-Sep-24	0.14	0.15	104%
		DC-04-AES-COMP2	19-Sep-24	0.16	0.16	98%
		DC-04-AES-COMP3	19-Sep-24	0.13	0.14	104%
		DC-04-AES-COMP4	19-Sep-24	0.15	0.15	103%
		DC-04-AES-COMP5	19-Sep-24	0.15	0.15	101%
		DC-04-LET-COMP1	19-Sep-24	0.079	0.077	98%
		Count		24	24	24
		Mean		0.12	0.12	98%
		Median		0.12	0.11	98%
		Minimum		0.066	0.064	85%
		Maximum		0.2	0.2	105%
		25th Percentile		0.089	0.087	96%
		75th Percentile		0.14	0.15	102%
		95th Percentile		0.19	0.18	105%
		Standard Deviation		0.038	0.037	5%
	Zooplankton	DC-01	15-Sep-24	0.018	0.004	22%
		DC-02	18-Sep-24	0.036	~ 0.00102	-
		DC-03	17-Sep-24	0.018	0.000002	0%
		DC-04	19-Sep-24	0.042	0.0028	7%
		Count		4	3	3
		Mean		0.028	0.002	10%
		Median		0.027	0.003	7%
		Minimum		0.018	0.000002	0%
		Maximum		0.042	0.004	22%
		25th Percentile		0.018	0.0014	3%
		75th Percentile		0.037	0.0034	14%
		95th Percentile		0.041	0.0038	21%
		Standard Deviation		0.012	0.002	11%

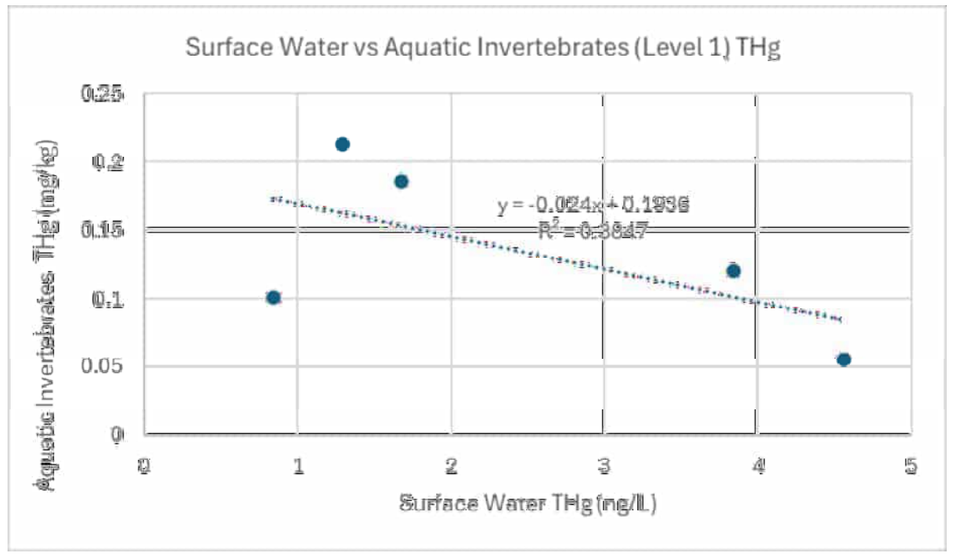
Notes:

1. Metal concentration values are expressed in mg/kg dry weight.

2. "~" = Values below the minimum level (ML) as flagged by the lab and not included in summary stats

3. For values below the detection limit, half the DL was used


Surface Water vs Aquatic Invertebrates (Level 1) MeHg
Aquatic Invertebrates THg (mg/kg)
0.25
0.2
0.15
0.1
0.05
0
y = -0.0338x + 0.1334
R² = 0.0014
0
0.05
0.1
0.15
0.2
0.25
Surface Water THg (ng/L)


Surface Water vs Aquatic Invertebrates (Level 1) THg
Aquatic Invertebrates THg (mg/kg)
0.25
0.2
0.15
0.1
0.05
0
y = -0.024x + 0.1936
R² = 0.3847
0
1
2
3
4
5
Surface Water THg (ng/L)

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [ ]
Location:	Virtual		
Time:	4:00-5:30 PM ET		
Date:	November 20th, 2025		
Executive Summary:	A Virtual Meeting focused on DFO's FHOCP review (with WSP and GBR), the need for more baseline context, conservative offsetting across connected habitats (including full-length compensation), and clarity on model rationale and species selection; regulatory scheduling highlighted the dependency on Schedule 2 amendment and consultation timelines. Immediate action is to share baseline/hydrology documents and update the plan accordingly, followed by a targeted follow-up discussion to close key items.		
Key Actions:	- Share baseline & hydrology documents (aquatics baseline, receiver water balance, hydrology baseline) with DFO/ECCC/IAAC — immediate. - Revise FHOCP to: integrate stream order/habitat figures; correct width terminology; add rationale for non-fish-frequented designations; expand fish relocation strategy text; include HEP validation/citations; and provide mapping context for East Pond. - Follow-up call after DFO reviews baseline documents to resolve outstanding issues (e.g., non-fish-frequented determinations, Dixie Creek resilience). - Confirm regulatory sequencing and consultation requirements across Fisheries Act authorization and MDMER Schedule 2; maintain early engagement records with Indigenous communities to streamline Crown consultations. - Consider offset ratio & contingencies, emphasizing scalability (e.g., pond complexes) and uncertainty management.		

2. **Attendance**

- Connor Devereaux GBR
- Ryan Shaw GBR
- Ashley Moncrief GBR
- Fiona Christiansen SLR
- Mark Ruthven WSP
- Jill LaPorte WSP
- Sheila Daniels WSP
- Clayton James DFO

- Brandi Mogge DFO
- Manon Simard DFO
- Maija Gailis IAAC

Meeting Notes:

- Jill LaPorte (Mark Ruthven to present) shares materials prepared by WSP; intent is to start with DFO comments, then discuss Fisheries Act authorization and Schedule 2 process/timeline.
- Plan: triage comments, outline how they'll be addressed, then cover permitting timeline; GBR to speak to timelines.

DFO comments:

- DFO requested more fisheries background (presence/absence, abundance, habitat attributes). WSP confirms substantial multi-season sampling and that baseline documents and modeling reports (e.g., water balance, water quality) will be provided in the next submission near year-end.
- WSP/ECCC/IAAC ready to receive aquatics baseline, receiver water balance, and hydrology baseline; WSP to share outside formal IA submission as needed.

Stream order analysis and habitat classification

- The project footprint is dominated by Strahler stream orders 1–3; this supports explaining fisheries values and will be integrated into FHOCP and baseline documents.
- Water bodies/courses are classified by habitat type based on three years of sampling; figures and tables (substrate %, widths, depths, riparian vegetation) will be brought forward to clarify impacted segments.
- Many project watercourses are ephemeral/intermittent small creeks, aligning with lower species richness patterns later discussed.

Species richness patterns

- Most impacted watercourses have 0–5 species; larger water bodies can show up to ~19 species. WSP will reflect these data in baseline and impact sections and strengthen existing conditions description in the FHOCP.

Determinations of non-fish-frequented waters

- DFO seeks robust rationale for water bodies deemed not fish-frequented; WSP will provide sampling evidence (timing, gear, eDNA) and correct headings (use bankfull width, not wetted width).
- Discussion on accepting non-fish-frequented waters in Schedule 2 polygons to avoid later disagreement; DFO indicates if evidence is sufficient at this point in time, such waters would not require Schedule 2. Follow-up discussion planned after DFO reviews the baseline document.

- Quantitatively, ~1.5 ha of non-fish-frequented area sits within a ~20 ha total impact; including/excluding that 1.5 ha would not change IA outcomes materially.

Connectivity and offsetting approach

- For fully overprinted habitats, impacts are treated as 100%; for flow reductions, WSP assumes 100% of creek length and bankfull width is impacted and includes the entire area in compensation (precautionary approach).
- Example: a segment with 60% flow reduction during operations is treated conservatively for compensation; even with remnant fish likely, the whole length is offset.
- For a watercourse with 90% flow reduction, WSP proposes fish exclusion measures during operations to prevent stranding, with full restoration at closure.
- Dixie Creek: DFO requests stronger rationale for resilience to flow changes; WSP will pull hydrology program text (e.g., backwater effect) and comparative analyses to support the conclusion.

Fish relocation strategy

- WSP will add bullets in the FHOCP describing a fish relocation strategy (not a full plan at this stage), noting distribution controls and alignment with provincial permitting processes.

East Pond clarifications

- DFO asked whether East Pond exists now and about dam performance; WSP to add points on geotechnical investigations and provide enlarged mapping/visual context (shapefile-like representation), noting beaver influence can create small, variable features.

HEP model (Comments 11–18): method and species selection

- WSP uses a Habitat Evaluation Procedure (HEP) model validated on prior projects (e.g., Meadowbank, various oil sands) and reviewed via CSAS; DFO's "heat" tool is currently limited to lake habitats, not applicable to these riverine creeks.
- Target species are chosen for dominance, trophic representation, cultural significance, and availability of Habitat Suitability Indices (HSI); lists will be documented and linked to community input.
- DFO requests explicit rationale (citations to CSAS, community lists) inside the compensation plan, and asks what happens if all fish species were included—WSP explains results would be similar, since habitat-type grouping already incorporates representative species and some low-abundance species (e.g., Burbot, Cisco) occur sparsely.
- DFO suggests a workshop/back-and-forth with DFO Science to address technical concerns, particularly around Comment 18; WSP agrees and will clarify validation history within the submission.

Ratios, uncertainty, and contingencies

- DFO notes offsetting uncertainty is typically higher than impact uncertainty; for large projects, higher offset ratios (e.g., 2:1, 4:1) may be appropriate, factoring in time-lag and functional performance. They request clarity on contingencies and scalability (e.g., Dixie Creek Pond Complexes).
- WSP will explain ratio logic in the December submission and emphasize scalability/feasibility given mining project magnitudes.

Regulatory process and schedule discussion

- Early application receipt: DFO/ECCC can receive an application earlier in the IA process to initiate some process steps (record of consultation, advanced offset plan), but DFO is not to issue authorization until the Schedule 2 amendment is completed.
- Schedule 2 amendment is a Governor in Council regulatory decision post-IA; typical 6–12 months after consultations conclude, with timing constraints (e.g., no cabinet in late June–mid September), making a July 2027 approval challenging if an IA decision is in June 2027.
- DFO/ECCC reiterate consultation timelines can be lengthy and variable; both MDMER and Fisheries Act processes can take up to two years in complex cases, though strong early engagement can make the post-plan phase smoother.

Fish rescue timing relative to Schedule 2

- Question: can fish removal occur in late summer prior to Schedule 2 listing to enable winter construction? DFO's preliminary view: likely yes (provincial permit governs movement), but caution to ensure robust fish exclusion so areas remain fishless until construction; a definitive written response to follow.

Clarifications on "comprehensive submission" triggers

- ECCC indicates the first key step is establishing water bodies frequented by fish; then a finalized compensation plan enables initiation of Crown consultation. The "two-year" reference is contextual and not a simple application start date due to regulatory nature of MDMER Schedule 2.

Immediate document sharing and recipients

- WSP/GBR to share aquatics baseline, receiver water balance, and hydrology baseline promptly (outside IA submission), using the same pathways as prior plan sharing and sending directly to DFO contacts while noting the baseline document is key for confidence on non-fish-frequented determinations.

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [ ]
Location:	Virtual		
Time:	10:00-10:30 ET		
Date:	November 21st, 2025		
Executive Summary:	A virtual meeting was held on November 21, 2025, involving the Great Bear Gold Project team and the Impact Assessment Agency of Canada (IAAC). The discussion focused on coordination of upcoming submissions, technical clarifications, and engagement challenges with Grassy Narrows related to environmental and health risk assessments.		
Key Actions:	- GBR to provide clarifying summaries and a secondary document in Batch 2 to explain changes and support ETR understanding. - GBR to prepare and share a summary table of changes and explanatory material in advance of Submission 3. - GBR to circulate materials and attendee information ahead of the upcoming Monday meeting.		

2. **Attendance**

IAAC

Kiera Smith – IAAC
Dietrich MacRae-Maahs – IAAC
Carla De Aquino – IAAC
Ian Martin – IAAC
Amy Sen – IAAC

GBR

Aaron Macdonell
Connor Devereaux
Ryan Shaw
Fiona Christiansen – (SLR)
Sheila Daniel - (WSP)

Meeting Notes:

Impact Statement Submission coordination and updates:

- GBR discussed that the MeHg Study Plan updates will be included in Batch 3 along with the Human Health Risk Assessment, while Batch 2 will be supported by clarifying summaries and a secondary document explaining changes to aid understanding by the External Technical Review Team (ETR).

- A summary table of changes will be provided before Submission 3 to ensure visibility of additional work beyond the main Impact Statement. IAAC noted that the ECCC had limited availability before booking a timeslot of the next Key Issue Briefing next Thursday.
- When discussing the ETR, GBR also mentioned they are concerned that the ETR is seeing the other side of the narrative between Grassy Narrows and GBR without seeing the additional work being done by GBR.

Fisheries Offsetting and Compensation Plan:

- GBR noted that they met with the DFO and ECCC on the DFO's comments on the FHOCP.

Engagement with Grassy Narrows:

- GBR stated they had met with Grassy Narrows this week and will update on how the meeting went. Grassy Narrows has shown limited participation and reluctance to support data requests or methodologies, including denying to our request for country foods data and not endorsing the referenced (Chan *et al*) study.
- Despite efforts, obtaining information from them has been challenging, and IAAC has been instructed by Grassy Narrows to communicate only with the lands protection team.
- GBR indicated that Grassy Narrows seemed to be pleased that GBR was bringing in reverse osmosis treatment.
- GBR noted that they are afraid that this could be used as an argument by Grassy Narrows against all mining in the area.

Methodology discussions and challenges:

- Grassy Narrows has questioned GBR's HHERA methodology, GBR indicated to Grassy Narrows in their meeting that they did not deviate from IAAC standards as it wouldn't be accepted by the IAAC.
- GBR questions if Grassy Narrows is aiming to delay the project. Sharing detailed methodologies is considered unlikely to be productive, with concerns that Grassy Narrows may seek to slow down mining activities in the region.
- The IAAC asked that GBR attempts to go as far down that route as possible to attempt to get their buy in and support for the project.

Project timelines and resource allocation:

- GBR stated that Submission 2 is targeted for December 19 or earlier.
- IAAC confirmed that resources dedicated to the Great Bear project will not be affected by other fast-tracked mining projects in Ontario.
- GBR to circulate materials and attendee information in preparation for the next meeting.

Environment and Climate Change Canada
Mining and Processing Division
351 St. Joseph Blvd.
Gatineau, QC J8Y 3Z5

December 2, 2025

Connor Devereaux
Land and Permitting Manager, Great Bear Resources
Kinross Gold Corporation
25 York Street, Suite 1700
Toronto ON M5J 2V5
connor.devereaux@kinross.com

Subject: Great Bear Gold Project – Schedule 2 Amendment Process

Connor Devereaux,

Kinross Gold Corporation (Kinross) has proposed the development of the Great Bear Gold Project in Northwestern Ontario (approximately 25 km southeast of Red Lake). The Great Bear Gold Project has the potential to affect numerous waterbodies. The *Fisheries Act* prohibits the deposit of a deleterious substance in water frequented by fish unless authorized by regulations.

The MDMER authorizes the deposit of mine waste (such as waste rock and tailings containing any concentration of a deleterious substance into two types of Tailings Impoundment Areas (TIA):

> (a) a water or place set out in Schedule 2; or
> (b) a confined disposal area, other than a disposal area that is, or is part of, a natural water body that is frequented by fish.

It is expected that natural water bodies frequented by fish shall be avoided to the extent practicable for the long-term disposal of mine waste; and that mine waste shall be managed to ensure the long-term protection of Canada's terrestrial and aquatic environment. Government policy for applying measures to offset harmful impacts to fish and fish habitat recommends a “hierarchy of measures” to reduce the risk to aquatic ecosystems. The hierarchy of measures is as follows: avoid, mitigate, offset. Applying this hierarchy of measures may support the above expectation.

Waterbodies Frequented by Fish

On November 25, 2025, ECCC received a Fisheries Baseline Report. Once the review has been completed, ECCC will notify the Proponent as to whether the locations which the proponent proposes to dispose of mine waste are considered natural waterbodies frequented by fish and provide an indication of next steps.

Future correspondence will also provide guidance regarding the MDMER, more broadly. In the meantime, you may find it useful to review the following webpage: https://www.canada.ca/en/environment-climate-change/services/managing-pollution/sources-industry/mining-effluent/metal-diamond-mining-effluent/tailings-impoundment-areas.html

Note: ECCC will confirm whether a waterbody is considered as water frequented by fish based on information provided by the proponent and in consultation with Fisheries and Oceans Canada (DFO).

Assessment of Alternatives (AA) for Mine Waste Disposal

ECCC has reviewed the AA report that was prepared by WSP Canada Inc., dated August 2025. The report, entitled “Great Bear Project, Assessment for Alternatives for Storage of Mine Waste-Draft” was reviewed in consideration of ECCC’s *Guidelines for the Assessment of Alternatives for Mine Waste Disposal*.

Our comments on the Great Bear Gold Project AA are included with this letter in Appendix 1. We ask for your collaboration in addressing the comments and when required, integrate your responses into an updated version of the AA report.

We would particularly like to draw your attention to comment #16, regarding the multiple accounts analysis for the low-grade ore stockpile alternatives. The apparent errors in the indicator scoring have resulted in an unjustified alternative preference.

We would also recommend that any future changes made to the AA report, whether they stem from our comments or come from your own initiative, be identified or listed in a separate document, as this will assist with the revision of the new version. Once the AA is amended, please resubmit your report for revision.

Closing

Should you have any questions or concerns regarding the attached comments or next steps, please do not hesitate to contact me via email at chris.wilson@ec.gc.ca.

Sincerely,

Chris Wilson
Senior Program Engineer
Mining and Processing Division
Environment and Climate Change Canada

Encl.

cc:
Patrick Koch, Head – Technical Analysis Unit, MPD – ECCC
Augusto Gamero, Head – Regulatory Development Unit, MPD – ECCC
Sheryl Lusk, Senior Environmental Assessment Officer, EPOD – ECCC
Melanie Campbell, Biologist, FPP – DFO
GreatBear@iaac-aeic.gc.ca – IAAC

Appendix 1

Environment and Climate Change Canada (ECCC) Comments on the Assessment of Alternatives Report (December 2025)

Number	PDF Page	Page in Report	Section in report	ECCC Comment	Proponent Response
1	General			The *Guidelines for the Assessment of Alternatives for Mine Waste Disposal* recommend that the indicators should be given to parameters that will be used to define measurability. A number of sub-accounts which include a single indicator are included in the Multiple Accounts Analysis (MAA), for example, for LGO, the sub-account “Post-Closure Costs”. According to the Guidelines, sub-accounts or evaluation criteria consider the material impact (i.e., benefit or loss) associated with any of the alternatives being evaluated. These should be defined on a project specific basis by a multi-disciplinary team with input from stakeholders. Sub-accounts by nature are often not directly measurable and need to be sufficiently decomposed to allow measurability. This decomposition takes the form of indicators, or measurement criteria. Table 10 of the Guidelines provides an example of an economic sub-account “Life of mine cost” that includes “Closure Costs”. Whereas sub-accounts by nature generally are not directly measurable, indicators allow measurability to be defined. It is recommended that those sub-accounts that include a single indicator be reconsidered, in consideration of the Guidelines, such that both evaluation and measurement criteria be defined. Alternatively, rationale for maintaining a single indicator in each of those subaccounts should be provided.	
2	General			Errors have been found in the MAA for each waste type as a result of reviewing the spreadsheets provided. Those errors are indicated in specific comments below, however care should be taken to ensure that the corrections are also made in the sensitivity analysis calculations, provided in separate spreadsheets. Additionally, for the purposes of supporting the sensitivity analysis findings, the data tables should be included within the report, such as in an appendix.	
3	47-48	32	5.1	The list of alternatives for TMF placement appear to be based on certain attributes or criteria that are characterized in the WSP engineering study. Perhaps those should be identified as threshold or pre-screening criteria since they contributed to the creation of the list. Threshold criteria appear to have been established after the list of candidates. Perhaps the list could be simplified if these criteria were combined with the criteria used in the engineering report.	
4	49-50	34-35	5.1	The second paragraph of characterization of each alternative (E through I) refers to a numbered “alterative”, rather than a letter. Please correct these references for consistency.	
5	63	48	5.6	Account weights for ‘Case 5: Project economics has no weight’ are incorrect. The technical and socio-economic account weights should be 3.	

6	72	57	Table 5-3	It isn't clear how ‘Loss of Traditional Foods’ is differentiated from ‘Loss of Indigenous Trapping’, above. The parameter used for each appears to be the TMF footprint area. If trapping can be considered a land use associated with gathering of traditional foods, similarly to how moose hunting is, then the two indicators should be combined. This also pertains to the indicators for the assessment of alternatives for other mine waste types in this report. Additionally, it isn’t clear how the TMF footprint would include undisturbed areas that continue to support activities associated with traditional foods. Clarifications are needed to validate this indicator. See also comment 8, below. This comment also applies to the reference of undisturbed footprints for other mine waste types in Tables 6-3 (MRS), 7-3 (LGO), 8-3 (MWP) and 9-3 (OVB).	
7	73	58	Table 5-4	The units for indicator ‘Inspection/Maintenance/Operations/Monitoring Costs’ are shown as ‘km’. The units shown for the same indicator in Table 5-5 are ‘m’ which appears to agree with the values for each alternative.	
8	73	58	Table 5-4	The parameter ‘Undisturbed TMF footprint’ is not understood. How does it differ from ‘TMF footprint’ such that the entire footprint could be undisturbed? See also comment 6, above. This comment also applies to the reference of undisturbed footprints for other mine waste types in Tables 6-4 (MRS), 7-4 (LGO), 8-4 (MWP) and 9-4 (OVB).	
9	75	60	Table 5-6	Please note the following suggested corrections: Regarding the Fisheries Resources subaccount, alternative E is recorded as having 2 watercourse crossings (Table 5-4), which corresponds to a value of 4 (Table 5-5). Regarding the Capital Costs subaccount, alternative E is recorded as having $2.98 million in conveyance costs (Table 5-4), which corresponds to a value of 6 (Table 5-5). Regarding the Closure Cost subaccount, alternative I is recorded as having $13.7 million in water management infrastructure reclamation costs (Table 5-4), which corresponds to a value of 2 (Table 5-5). Regarding the Indigenous Land Use subaccount, alternative O is recorded as having 26.0 ha in lost moose foraging habitat (Table 5-4), which corresponds to a value of 2 (Table 5-5). Regarding the Operational Impact (Aesthetics) subaccount, alternative O is recorded as having a dam elevation of 380 masl (Table 5-4), which corresponds to a value of 6 (Table 5-5).	
10	95	80	6.2	Rationale should be provided regarding the difference of pre-screening criteria when compared to those for TMF alternatives (section 5.2). In particular, it would seem that the second TMF criterion ("Do the alternatives avoid overprinting existing commercial aggregate operations?") would also be relevant for MRS locations. These comments also apply to pre-screening criteria for other mine waste types characterized in sections 7.2 (LGO), 8.2 (MWP) and 9.2 (OVB).	
11	109	94	Table 6-5	The Loss of Fish Habitat (Watercourses) and the Wild Rice indicator scales have overlap. The symbols should be changed so that the parameters cannot be equal for indicator values 5 and 6.	

12	110	95	Table 6-6	Please note the following suggested corrections: Regarding the Fisheries Resources subaccount, alternative F is recorded as having a loss of 0.1 ha of fish habitat (waterbodies) (Table 6-4), which corresponds to a value of 5 (Table 6-5). Regarding the Operating Cost subaccount, alternative C is recorded as having an estimated haul distance of 2.9 km (Table 6-4), which corresponds to a value of 2 (Table 6-5). Also, Alternative D is recorded as having an estimated haul distance of 2.6 km (Table 6-4), which corresponds to a value of 3 (Table 6-5).	
13	135	120	Table 7-3	It is noted that the indicator values for Water Treatment Costs are equal for all LGO stockpile alternatives (Tables 7-4, 7-5). Since this indicator is not differentiating, it may be omitted.	
14	137	122	Table 7-5	The Loss of Fish Habitat (Watercourses) and the Wild Rice indicator scales have overlap. The symbols should be changed so that the parameters cannot be equal for indicator values 5 and 6.	
15	138	123	Table 7-6	Please note the following suggested corrections: Regarding the Terrestrial Resources subaccount, alternative C is recorded as having an LGO footprint of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and Alternative D is recorded as having an LGO footprint of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5). Regarding the Species at Risk subaccount, alternative C is recorded as having a direct loss of avian SAR habitat of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and alternative D is recorded as having a direct loss of avian SAR habitat of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5). Also, alternative C is recorded as having a direct loss of maternity roosting habitat of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and alternative D is recorded as having a direct loss of maternity roosting habitat of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5). Regarding the Post-Closure Costs subaccount, alternative C is recorded as having an LGO footprint of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and Alternative D is recorded as having an LGO footprint of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5). Regarding the Indigenous Land Use subaccount, Loss of Indigenous Trapping indicator, alternative C is recorded as having an LGO footprint of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and alternative D is recorded as having an LGO footprint of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5). Also, regarding the Loss of Traditional Foods indicator, alternative C is recorded as having an undisturbed LGO footprint of 48.2 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5), and alternative D is recorded as having an undisturbed LGO footprint of 49.8 ha (Table 7-4), which corresponds to a value of 2 (Table 7-5).	
16	141	126	Table 7-15	Based on the indicator rating changes mentioned above, the resulting merit rating for alternative C should be 3.5 and the merit rating for alternative D should be 3.9. These changes would suggest alternative B to have the highest merit rating for LGO placement, which would be marginally higher than the merit rating for alternative A.	
17	142	127	Table 7-16	The LGO stockpile sensitivity analysis needs to be revisited with the corrections to alternatives C and D as indicated for the base case, above.	

18	163	148	Table 8-3	It is noted that the indicator values for GHG emissions are equal for all MWP alternatives (Tables 8-4, 8-5). Since this indicator is not differentiating, it may be omitted.	
19	168	153	Table 8-6	Please note the following suggested corrections: Regarding the Terrestrial Resources subaccount, alternative A is recorded as having an MWP footprint of 62.0 ha (Table 8-4), which corresponds to a value of 1 (Table 8-5). Regarding the Species at Risk subaccount, Alternative A is recorded as having a caribou habitat loss of 33.5 ha (Table 8-4), which corresponds to a value of 2 (Table 8-5). Also, alternative F is recorded as having a maternity roosting habitat loss of 69.6 ha (Table 8-4), which corresponds to a value of 2 (Table 8-5).	
20	174	159	Table 8-15	Project Economics ratings for alternatives A and F are inconsistent with those stated in Table 8-13, however, the errors do not appear to have affected the calculations of resulting alternative merit ratings.	
21	184	169	9.2	As mentioned in relation to section 6.2, rationale should be provided regarding the difference of pre-screening criteria when compared to those for other alternatives (section 5.2). For example, it would seem that the second TMF criterion ("Do the alternatives avoid overprinting existing commercial aggregate operations?") would also be relevant for OVB locations.	
22	197	182	Table 9-5	The Complexity of Facility Water Management and the Wild Rice indicator scales have overlap. The symbols should be changed so that the parameters cannot be equal for indicator values 5 and 6.	
23	198	183	Table 9-6	Please note the following suggested corrections: Regarding the Species at Risk subaccount, alternative D is recorded as having a maternity roosting habitat loss of 145.6 ha (Table 9-4), which corresponds to a value of 1 (Table 9-5). Regarding the Design and Construction Factors subaccount, Alternative F is recorded as having a length of perimeter ditching of 2.3 km (Table 9-4), which corresponds to a value of 5 (Table 9-5). Regarding the Indigenous Land Use subaccount, alternative D is recorded as having a undisturbed OVB footprint of 148.4 ha (Table 9-4), which corresponds to a value of 3 (Table 9-5).	

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [ ]
Location:	Virtual		
Time:	10:00-10:30 ET		
Date:	December 05, 2025		
Executive Summary:	A virtual meeting between GBR and IAAC. Key actions focused on Batch 2 timing, ETR feedback on the MeHg Study Plan, and ensuring ETR receives complete information packages that reflect proponent and federal perspectives, with IAAC reaffirming a science-driven approach and risk reduction.		
Key Actions:	- GBR on track to submit batch 2 for the Impact Statement for Dec 19th or earlier. - ETR Feedback for the MeHg Study plan expected mid-December.		

2. **Attendance**

IAAC

Kiera Smith – IAAC
Dietrich MacRae-Maahs – IAAC
Carla De Aquino - IAAC
Ian Martin – IAAC

GBR

Aaron Macdonell – GBR
Connor Devereaux – GBR
Ryan Shaw – GBR
Luke Crosby - GBR
Fiona Christiansen – SLR
Sheila Daniel – WSP

Notes:

- IAAC has limited updates this week as they prepare for GBR's Batch 2 submission.
- Clarification sought on Submission 2 timing (around December 19); GBR indicated they're still on track and could be slightly earlier.
- ETR feedback on the MeHg Study Plan is expected mid-December.
- Additional information from the Secretariat is anticipated in the coming days to clarify review focus.
- GBR notes that if comments introduce material changes that delay model development, updating may not be possible given the time taken to form the ETR.

- IAAC acknowledges ETR's immediate focus will be on materials provided to date but will also take into account December submittal and beyond.
- GBR raises concern about one-sided correspondence from Grassy Narrows being shared with the ETR without GBR's response, asking IAAC to avoid sharing such items until context is included.
- GBR expressed interest for complete, package-based submissions to ETR (including GBR responses), and for Health Canada standards to be used rather than EPA
- GBR requesting that IAAC responds directly to Grassy where appropriate; some letters to the Crown may not be appropriate for GBR to answer.
- IAAC notes Grassy Narrow' perspective is part of the record and that federal reviewers—including Health Canada—will provide their views; IAAC will consider what's feasible to ensure full review packages rather than piecemeal reviews.
- GBR commits to addressing every concern, demonstrating the science, potentially accepting reasonable conditions (even beyond scientific basis in some cases) to satisfy stakeholders, while demonstrating no significant impacts through the IA.
- IAAC affirms continued collaborative work, aiming to resolve issues
- IAAC requests that, once GBR's letter of responses to Grassy Narrows is ready, it be sent to IAAC to share with the Secretariat.

1. **Executive Summary**

Client Name:	Kinross Gold Corporation	Project No: Great Bear	
Project Name:	Great Bear Gold Project		
Meeting Type:	In-Person [ ]	Virtual [X]	Hybrid [ ]
Location:	Virtual		
Time:	10:00-10:30 ET		
Date:	December 18, 2025		
Executive Summary:	A virtual meeting between GBR and IAAC prior to the end of the year. Discussed Impact Statement Submission 2 and sharing it with the communities. All outstanding matters to be addressed in the new year.		
Key Actions:	- A model update for water predictive model will be planned for the first two weeks of January. - IAAC to share Sub 2 with the First Nations communities		

2. **Attendance**

Kiera Smith – IAAC
Dietrich MacRae-Maahs – IAAC
Carla De Aquino – IAAC
Ian Martin – IAAC
Aaron Macdonell – GBR
Connor Devereaux – GBR
Ashley Moncrief - GBR
Ryan Shaw – GBR
Luke Crosby - GBR
Sheila Daniel - WSP

Notes:

- IAAC shared that Package 2 has already been distributed to government agencies. Once an IT issue is resolved, it will also be shared with the communities.
- GBR has already taken the initiative to share it directly with the communities.
- Regarding Batch 3, IAAC noted that the ALIA team may only have preliminary data available at the time of submission, rather than the final product. However, ongoing conversations between ALIA and GBR suggest no concerns from IAAC on this point.
- GBR clarified that for LSFN and WFN, the only differences from GBR's submission are the indigenous rights components being included in the ALIA process.

- GBR raised the issue of awaiting an official letter from Transport Canada regarding navigability. While not certain if IAAC can expedite this, the letter does address questions related to the second submission.
- IAAC asked about outstanding impacts on the rights assessment. GBR responded that conclusions were made within the chapter, but the substantive information will be included in the ALIA. Traditional Knowledge (TK) information was incorporated, but the assessment of rights was not included.
- IAAC acknowledged this update as positive.
- IAAC mentioned that the last meeting between IAAC and Grassy Narrows was in November, with the next scheduled for January 7th. Bi-monthly meetings are planned going forward.
- GBR indicated that new responses to IAAC will be provided in the early new year.
- GBR confirmed that the most recent update for the water predictive model is scheduled for the first two weeks of January.
- GBR concluded that these matters will be addressed in the new year.

Ministry of Citizenship and Multiculturalism
Archaeology Program Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto, ON, M7A 2R9
Tel: (437) 339-9197
Email: andrea.williams@ontario.ca

Ministère des Affaires civiques et du Multiculturalisme
Unité des programmes archéologique
Direction du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto, ON, M7A 2R9
Tél: (437) 339-9197
Email: andrea.williams@ontario.ca

Ontario

January 7, 2026

Emilie Teasdale
WSP Canada Inc.
and
Jason Stephenson

RE: Review and entry into the Ontario Public Register of Archaeological Reports: Marine archaeological assessment report entitled, "*Great Bear Resources Ltd. Great Bear Project, Marine Archaeological Assessment and Visual Inspection*", Dated September 18th, 2025, Filed on September 22, 2025, Licence numbers 2024-34 and 2025-21.

Dear Emilie and Jason:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18.* This review has been carried out in order to determine whether the licensed marine archaeologist met the terms and conditions of their licence and whether the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

In reviewing this report, this ministry notes that specific aspects of the assessment have not been addressed to the ministry's satisfaction. Please file a revised report that resolves the following fieldwork and/or reporting issues:

1. **The recommendations do not reflect all the information presented on Figures 8a and 8b. Please revise the recommendations to include the next steps for the areas mapped in coral pink which were determined to have marine archaeological potential requiring further assessment. Specifically, these waterbodies are Dixie Lake, Dixie Creek, Unnamed Waterbody 2, Unnamed Waterbody 6, Pakwash Lake - the Chukuni River is mentioned in the recommendations. The concern is that by excluding some of the waterbodies within the study area from the report recommendations, it could be misunderstood by the proponent that impacts may proceed before these assessments are undertaken, putting marine archaeological resources at risk.**

A revised report must be filed by the ministry on or before April 7, 2026. Once a revised report is received, it will be reviewed, and a response provided. Please note that licensees who fail to file reports by the specified report filing deadline will be in violation of the terms and conditions of their licence.

---

*In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the report or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken if additional artifacts or archaeological sites are identified or the report is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

If the concerns identified are not fully addressed by the date noted above the report may be deemed incomplete or non-compliant. Incomplete or non-compliant reports may impact a licensee's record of compliance.

Please note that a licensee's record of compliance will be taken into account by the ministry at the time of any licensing decisions.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Andrea K. Williams

Andrea Williams
Archaeology Review Officer/Marine Archaeology Licensing and Information

---

*In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the report or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken if additional artifacts or archaeological sites are identified or the report is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Transport Canada Transports Canada

Navigation Protection Program (NPP)
100 South Front Street, 1st Floor
Sarnia, ON N7T 2M4

NPP File No.: 2023-410112

January 16, 2026

Kinross Gold Corporation
c/o Great Bear Resources Ltd.
104 Howey Street
Red Lake, ON P0V 2M0

Attention: Connor Devereaux

RE: Navigability Determinations and Applicability of the *Canadian Navigable Waters Act* (CNWA) for the Great Bear Project, Municipality of Red Lake, District of Kenora, in the Province of Ontario

The *Canadian Navigable Waters Act* (CNWA) prohibits the depositing or throwing of materials that risk interfering with navigation in any navigable water (sections 21-22) and the dewatering of any navigable water (subsection 23(1)). Any person proposing a prohibited activity on a navigable water shall require a Governor in Council exemption, as per subsection 24(1) of the Act.

To determine whether section 23 of the Act applies to the Great Bear Project, Transport Canada has completed navigability assessments for the below waterbodies within the proposed mine footprint:

- Waterbody 1
- Waterbody 2
- Waterbody 4
- Waterbody 6
- Watercourse 1
- Watercourse 1A
- Watercourse 1B
- Watercourse 2
- Watercourse 3
- Watercourse 4
- Watercourse 6A
- Watercourse 6B
- Watercourse 6C

Transport Canada has determined that these bodies of water do **not** meet the definition of 'navigable water' as defined under the CNWA:

> ***navigable water*** means a body of water, including a canal or any other body of water created or altered as a result of the construction of any work, that is used or where there is a reasonable likelihood that it will be used by vessels, in full or in part, for any part of the year as a means of transport or travel for commercial or recreational purposes, or as a means of transport or travel for Indigenous peoples of Canada exercising rights recognized and affirmed by section 35 of the *Constitution Act, 1982*, and
>
> (a) there is public access, by land or by water;
> (b) there is no such public access but there are two or more riparian owners; or
> (c) Her Majesty in right of Canada or a province is the only riparian owner.

As such, a Governor in Council exemption is not required for the proposed dewatering of the above-referenced waterbodies.

Canada

Your NPP file number is 2023-410112. Please include this file number in any future correspondence.

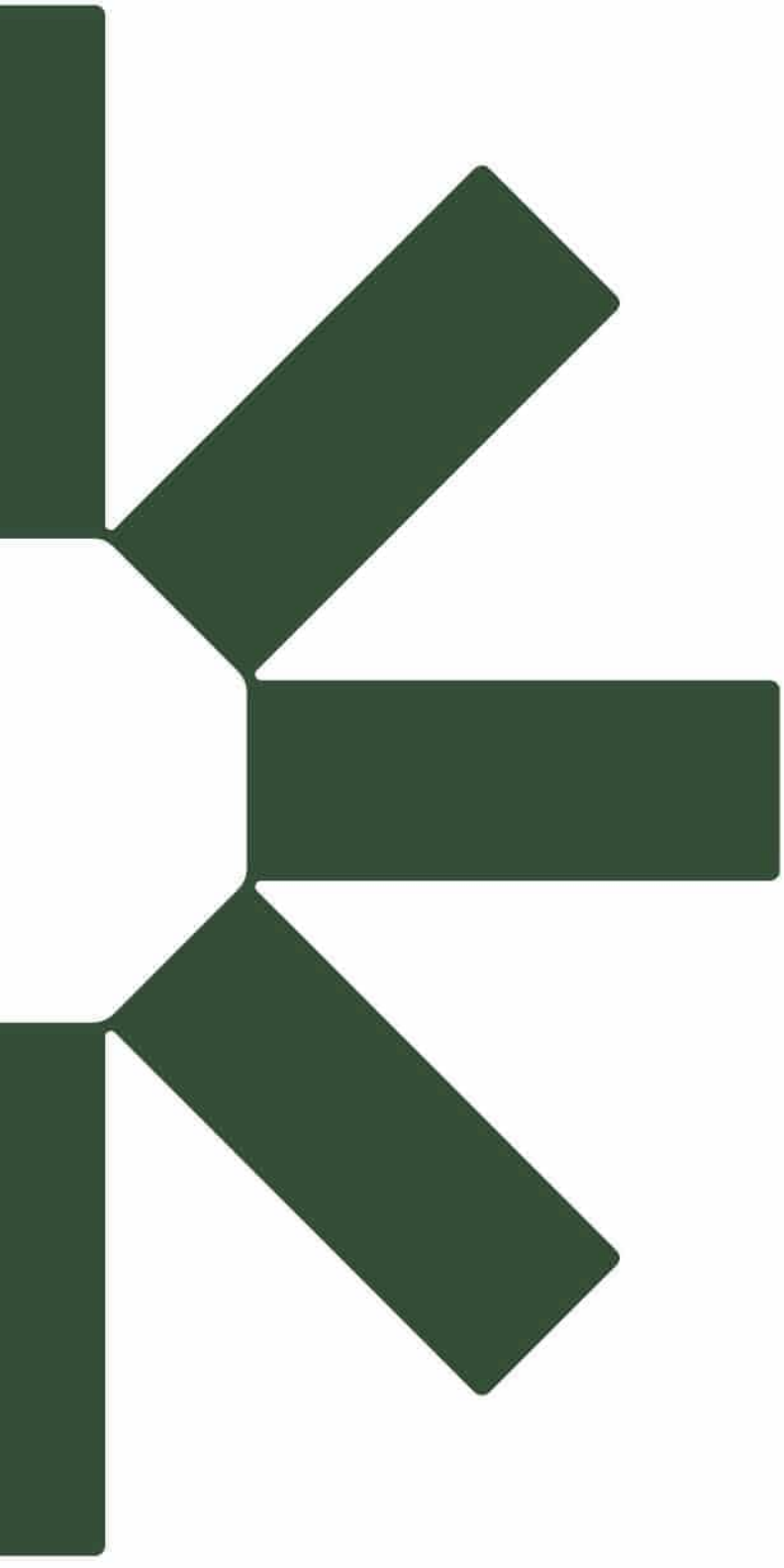
Should you have any questions, please do not hesitate to contact our office in Sarnia, Ontario, by phone at (519) 383-1863 or by e-mail at NPPONT-PPNONT@tc.gc.ca.

Respectfully,

Courtey Bice
A/Manager, Navigation Protection Program
Programs Group, Ontario Region
Transport Canada

CB/eh

cc: Aaron MacDonell, Kinross Gold Corporation;
Ashley Moncrief, Kinross Gold Corporation;
Ryan Shaw, Kinross Gold Corporation;
Shelia Daniel, WSP;
Great Bear Gold Project, Impact Assessment Agency of Canada (IAAC)



Making Sustainability Happen