Government Response to the Joint Review Panel Recommendations for the Marathon Palladium Project

November 30, 2022







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Generation PGM Inc. (the Proponent) is proposing to construct, operate and decommission an open pit palladium mine approximately 10 km from Marathon, Ontario. The proposed Marathon Palladium Project (the Project) would include three open pits, an ore processing plant, tailings and mine rock storage facilities, site access roads, a transmission line, explosives factory and magazines, water management facilities, ancillary mine infrastructure and associated activities. The rate of production would be approximately 25,000 tonnes of ore per day with a proposed operating mine life of approximately 13 years.

The assessment of the Project was referred to a Joint Review Panel in 2010. The Project was assessed under the Ontario *Environmental Assessment Act* and the *Canadian Environmental Assessment Act*, 2012. In 2014, at the former proponent's request, the environmental assessment was placed on hold and the Joint Review Panel was disbanded. In 2020, the Proponent indicated that it wished to resume the environmental assessment of the Project and the Minister of Environment and Climate Change appointed new members to the Joint Review Panel to continue the assessment.

In March and April 2022, the Joint Review Panel held a virtual hearing, during which 26 participants presented to the Joint Review Panel. On August 2, 2022, the Joint Review Panel submitted its report¹ to the federal Minister of Environment and Climate Change and Ontario's Minister of the Environment, Conservation and Parks.

In addition to recommendations directed at the Proponent, the Joint Review Panel's report contained seventeen (17) recommendations to the federal and provincial governments regarding the effects of the Project as well as measures that could improve the conduct of environmental and impact assessments in the future. These recommendations address matters related to the management of caribou, boreal population (hereafter referred to as "caribou"), water quality guidelines, methods for assessing health effects of diesel exhaust, and impacts to Indigenous health, socio-economic conditions, resources, land-use, and physical and cultural heritage.

This response outlines the commitments of the Governments of Canada and Ontario in response to the Joint Review Panel's recommendations and provides complementary measures to accompany both federal and provincial decisions respectively.

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¹ Available on the Canadian Impact Assessment Registry: https://iaac-aeic.gc.ca/050/documents/p54755/144649E.pdf

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Recommendation Number from Joint Review Panel Report		Government Response
49	Develop and implement a coordinated plan to advance the recovery of the Lake Superior Coast Range caribou as soon as possible. The plan should include tangible actions and timelines for each component of the plan.	The Governments of Canada and Ontario agree with this recommendation. Environment and Climate Change Canada (ECCC) is in agreement that a coordinated plan to advance the recovery of the Lake Superior Coast Range caribou is needed. On April 21, 2022, Ontario and Canada signed an Agreement for the Conservation of Caribou, Boreal Population in Ontario under section 11 of the Species at Risk Act (the s. 11 agreement). The agreement commits Ontario, with support from Canada, to work collaboratively with Indigenous and non-Indigenous partners to support the implementation of conservation measures in Ontario. Notably, Conservation Measure '3.3 Lake Superior Coast Range Management Plan', commits Ontario to finalize a management approach for the Lake Superior Coast Range and Discontinuous Distribution by April 2024 and begin implementation shortly thereafter.
50	Consider and incorporate caribou recovery measures and strategies put forward by Biigtigong Nishnaabeg and Michipicoten First Nation in the plan developed. Interested Indigenous groups should be included in the development and implementation of the plan, including exploring a collaborative partnership with Biigtigong Nishnaabeg for caribou recovery in the Lake Superior Coast Range.	The Government of Canada agrees with this recommendation. As part of the s.11 agreement, Canada and Ontario have committed to engaging with Indigenous communities regarding Boreal Caribou conservation, as Conservation Measures are developed and implemented. ECCC has offered funding to Biigtigong Nishnaabeg to support caribou conservation in the region. Federal environmental assessment conditions include the requirement for the Proponent to develop a compensation plan for woodland caribou (Rangifer tarandus caribou) critical habitat in consultation with

		Biigtigong Nishnaabeg and other Indigenous groups that takes into account Biigtigong Nishnaabeg's Caribou Strategy.
51	federal and provincial governments should afford particular attention to the Panel's finding with respect to cumulative effects on caribou when considering development within the Lake Superior Coast Range and/or the area of Discontinuous Distribution.	The Governments of Canada and Ontario agree with this recommendation.
		The Government of Canada remains committed to providing proponents with clear science-based advice regarding the information and studies required for assessing potential cumulative effects during future federal impact assessments within the Lake Superior Coast Range and/or the area of Discontinuous Distribution.
		Should future designated projects be proposed in the Lake Superior Coast Range, the federal <i>Impact Assessment Act</i> (IAA) requires all project proponents to consider "any cumulative effects that are likely to result from the designated project in combination with other physical activities that have been or will be carried out". This requirement is reflected in the Tailored Impact Statement Guidelines developed for each assessment, which require an assessment of the cumulative effects of the project with other past, existing and reasonably foreseeable projects and physical activities.
		Ontario currently reviews activity proposals with consideration to range-level impacts including cumulative effects, and the ecological function of sub-range habitat features like Category 1 High Use Areas, which collectively influence caribou population trends. Noting that the Discontinuous Distribution is not a caribou range, therefore, activity proposals are reviewed on a case-by-case basis with modified considerations.
76	Government agencies, including Environment and Climate Change Canada and the Ministry of the Environment, Conservation and	The Governments of Canada and Ontario agree with this recommendation. ECCC is working to acquire the necessary data to determine the level of risk and need for water quality guidelines for platinum group metals.
	Parks, should develop water quality	A research project entitled "Aquatic ecotoxicology of critical elements used in technology, and their mixtures, in organisms" seeks to identify

objectives or guidelines for platinum group metals.

bacterial, algal, invertebrate and fish toxicity responses to platinum group metals using multiple metal species and including certain forms of nanometals, and through a supporting study, provide analytical method development for nanometal evaluation. The preliminary results of the research are anticipated to be available in March 2023. The results will first be included in an internal report, with external publications shortly after.

The research results are expected to inform the risk assessment and risk management processes within the Chemicals Management Plan. The Chemicals Management Plan is a jointly managed initiative that brings together various federal chemicals programs under a single strategy aimed at assessing environmental and human health risks posed by chemical substances and organisms, and managing toxic substances according to the risks they present to human and environmental health. Once the level of risk for each of these metals has been determined, instruments such as the development of water quality guidelines can be selected, as needed, to manage these risks to the environment.

ECCC develops water quality guidelines either as Canadian Environmental Quality Guidelines through Canadian Council of Ministers of the Environment or Federal Environmental Quality Guidelines (FEQG). Both guidelines follow the same development protocol and require full protection of aquatic life in all situations. ECCC typically recommends Canadian Environmental Quality Guidelines as the preferred option in order to allow collaboration with other Canadian jurisdictions, including the Ontario Ministry of the Environment, Conservation and Park.

Based on previous experience and standard practices, Ontario has endorsed the use of FEQG as surrogates for Ontario Provincial Water Quality Objectives, and would work with Canada to support the development of platinum group metals FEQG.

		Given the time needed to develop water quality criteria, specifically for palladium, to bridge the immediate approvals needs of Ontario has imposed a provincial condition on the Proponent to develop site-specific guidelines for palladium and any other platinum group metals deemed to be constituents/contaminants of potential concern and that these be based on findings from updated geochemical, baseline and predictions assessments, along with appropriate literature review.
77	Health Canada should develop their own, or formally endorse an existing, quantitative method for evaluating health risks from diesel exhaust. This would guide proponents in the development of future environmental impact statements.	The Government of Canada agrees with this recommendation. Health Canada has developed an approach to quantitatively assess the cancer risks from diesel exhaust based on the relationship between ambient fine particulate matter (PM _{2.5}) exposure and lung cancer risk among the Canadian population (Health Canada, 2022¹). This quantitative assessment is considered appropriate to characterize cancer risks from diesel emissions given their contribution to ambient PM _{2.5} for most projects in Canada and the fact that the carcinogenicity of diesel exhaust has generally been evaluated based on the respirable PM fraction (Health Canada, 2016²; IARC 2013³). This method, recently developed by Health Canada, is accompanied by a worked example and will be included in the updated version of Health Canada's <i>Guidance for Evaluating Human Health Effects in Impact Assessment: AIR QUALITY</i> , expected to be published in 2023. To assess non-cancer risks of short-term and chronic exposure to diesel exhaust, proponents are encouraged to continue using the guidance values presented in Health Canada 2016. The Impact Assessment Agency of Canada (the Agency), in coordination with Health Canada, will update Tailored Impact Statement Guidelines to include this guidance for future projects where an impact assessment is required.
		meta-analysis. https://publications.gc.ca/site/eng/9.907038/publication.html 2. Health Canada. 2016. Human Health Risk Assessment for Diesel Exhaust. https://publications.gc.ca/collections/collection_2016/sc-hc/H129-60-2016-eng.pdf

		3. International Agency for Research on Cancer (IARC). 2013. IARC monographs on the evaluation of carcinogenic risks to humans. Volume 109. Outdoor air pollution. https://publications.iarc.fr/Book-And-Report-Series/larc-Monographs-On-The-Identification-Of-Carcinogenic-Hazards-To-Humans/Outdoor-Air-Pollution-2015
97	Identify and allocate, through the necessary studies and permitting requirements, a replacement trapline to mitigate the adverse effects on current use from loss of the community trapline, prior to construction, in collaboration with the Proponent.	The Government of Ontario agrees with this recommendation. The Ministry of Natural Resources and Forestry has worked with Biigtigong Nishnaabeg leadership and has committed, subject to any consultation obligations, to directly allocate a replacement community trapline, and has communicated to Biigtigong Nishnaabeg how it will make that allocation. To date, the Ministry of Natural Resources and Forestry has identified and proposed several candidate traplines that Biigtigong Nishnaabeg has determined are not suitable. The Ministry of Natural Resources and Forestry continues to work directly with Biigtigong Nishnaabeg towards the identification and allocation of a trapline that Biigtigong Nishnaabeg agrees is suitable for the community's needs, however, achievement of this initiative prior to construction is dependent on a suitable vacancy being identified.
98	The Proponent, in collaboration with Biigtigong Nishnaabeg and the federal and/or provincial government, should support the development of a bypass road and explore other measures to provide convenient and safe access by Biigtigong Nishnaabeg to their Exclusive Title Area to mitigate cumulative effects resulting from access restrictions and disturbances caused by the Project.	The Governments of Canada and Ontario agree with the intent of this recommendation. To meet the Joint Review Panel's Recommendations #98 and #99, the Agency continues to work with Natural Resources Canada (NRCan) to explore potential funding opportunities to support the construction of the new bypass road. Biigtigong Nishnaabeg has requested the creation of a new access road (referred to throughout the Joint Review Panel hearing process as the Sprucetop/Gaffhook bypass road) as a key mitigation for loss of access to a critical area (Camp 19 Road) relied upon for the practice of Biigtigong Nishnaabeg's rights. The Ministry of Natural Resources and Forestry has committed to
		participate in discussions for the construction of a new access road, given that permits/authorizations from the Ministry of Natural Resources and Forestry may be required. Ontario continues to explore potential options.

99	Develop a bypass road or explore other measures to provide convenient and safe access by Biigtigong Nishnaabeg to their Exclusive Title Area to mitigate existing cumulative effects resulting from land alienations documented by Biigtigong Nishnaabeg, to which the Project would contribute.	The Governments of Canada and Ontario agree with the intent of this recommendation. The Agency continues to work with NRCan to explore potential funding opportunities to support the construction of the new bypass road. Biigtigong Nishnaabeg has requested the creation of a new access road (referred to throughout the Joint Review Panel hearing process as the Sprucetop/Gaffhook bypass road) as a key mitigation for loss of access to a critical area (Camp 19 Road) relied upon for the practice of Biigtigong Nishnaabeg's rights. The Ministry of Natural Resources and Forestry has committed to participate in discussions for the construction of a new access road, given that permits/authorizations from the Ministry of Natural Resources and Forestry may be required. Ontario continues to explore potential options.
103	Develop and implement targeted health and social supports to assist the community in meeting wellness objectives to address existing constraints faced by Biigtigong Nishnaabeg.	The Government of Canada agrees with the intent of this recommendation. The Agency and Indigenous Services Canada (ISC) continue to explore programs through ISC's First Nations and Inuit Health Branch (FNIHB) to supplement Biigtigong Nishnaabeg's existing health services. In addition to existing programming, the Agency is continuing to engage with Biigtigong Nishnaabeg in order to support program application processes and is also continuing to consult ISC in order to explore further possible options and solutions in order to achieve community wellness objectives.
104	Provide culturally appropriate places for the transfer of intergenerational knowledge necessary for cultural, spiritual, and mental health, including	The Governments of Canada and Ontario agree with the intent of this recommendation.

Biigtigong Nishnaabeg–specific options for the creation, protection and/or expansion of land-based education infrastructure, outdoor classrooms, and the fish hatchery learning facility.

The Agency and ISC have worked with Biigtigong Nishnaabeg on a Strategic Partnership Initiative proposal for the construction of a Cultural and Wellness center which was approved in October 2022. The Cultural and Wellness Initiative is intended to address some of the impacts resulting from the Project, namely the severing of a registered community trapline and reduced access to traditional territory via Camp 19 Road. The Agency and ISC are contributing funding from 2022-26 to support the initiative.

While Fisheries and Oceans Canada (DFO) does not have the regulatory purview to contribute to the establishment of a fish hatchery in this context, DFO is available to participate in conversations relating to supporting fish species within Biigtigong Nishnaabeg's Exclusive Aboriginal Title area within our mandate, which relates primarily to fish habitat.

The Ministry of Natural Resources and Forestry is supporting Canada's Cultural and Wellness Initiative through the identification of permits or other approvals which may be required from the Ministry of Natural Resources and Forestry and has committed to support Biigtigong Nishnaabeg in any such approvals processes, as appropriate.

Ontario is currently working to address issues within its jurisdiction including Biigtigong Nishnaabeg's interests related to fisheries management. The Ministry of Natural Resources and Forestry has committed to continue to engage with Biigtigong Nishnaabeg to explore its interests in developing a Biigtigong Nishnaabeg fish hatchery program as well as its interests in developing a fish habitat restoration/rehabilitation project. The Ministry of Natural Resources and Forestry has met with Biigtigong Nishnaabeg directly (May 5, 2022 and September 21, 2022) to discuss these interests in more detail and has committed to support such programs/projects by providing technical assistance for species and habitat studies that may be required, and to consider alignment of such projects/programs

		with broader fisheries management objectives. The Ministry of Natural Resources and Forestry anticipates ongoing engagement with Biigtigong Nishnaabeg will be necessary, and has committed to participating in further discussions, including meetings, which began in November 2022.
109	The Canada Mortgage and Housing Corporation and the Agency should develop and implement, with Biigtigong Nishnaabeg, a plan regarding an Indigenous Shelter and Transitional Housing initiative that could support the construction of shelters that would accommodate women and vulnerable peoples.	The Government of Canada agrees with the intent of this recommendation. The Canada Mortgage and Housing Corporation (CMHC) has shared funding opportunities under the National Housing Strategy programs with Biigtigong Nishnaabeg such as Seed Funding, Indigenous Shelter and Transitional Housing Initiative, National Housing Co-Investment Fund as well as the upcoming Rapid Housing Initiative funding opportunity. CMHC and the Agency have committed to continue working with Biigtigong Nishnaabeg on the applications for the aforementioned programs.
110	Indigenous Services Canada should provide additional funding for the community land-use plan, as determined by Biigtigong Nishnaabeg to support the work needed to conduct geotechnical studies regarding soil saturation and suitability for the location and construction of new homes.	The Government of Canada agrees with this recommendation. ISC confirmed the availability of funding for the required geotechnical study regarding soil saturation and suitability for the location of new homes for the community. ISC will consider the need for a Land Use Plan for subdivision development, once a proposal is provided by Biigtigong Nishnaabeg. In August 2022, representatives from the Canada Infrastructure Bank
		(CIB) discussed with Biigtigong Nishnaabeg options for a low interest loan to assist with funding a subdivision with 50 serviced lots. CIB has committed to continue discussing the opportunity with Biigtigong Nishnaabeg.
		The Agency, ISC and the Province of Ontario worked collaboratively with Biigtigong Nishnaabeg through the approval process for a new water treatment facility. On October 15, 2022, ISC provided Biigtigong

		Nishnaabeg with confirmation that the necessary funding was approved for the new water treatment plant.
111	The Crown should work collaboratively with Biigtigong Nishnaabeg to explore options to address pressures related to educational services and early childcare demands. These discussions should consider how best to develop a recruitment and retention program to attract qualified teachers and early childcare providers within the community.	The Government of Canada agrees with the intent of this recommendation. The Agency will continue to provide support to Biigtigong Nishnaabeg to help identify solutions and funding opportunities. The Agency continues to work with Biigtigong Nishnaabeg and ISC FNIHB to identify the specific needs for targeted health and social services for the community.
114	Support initiatives to restore culturally appropriate conditions at preferred locations on Lake Superior for the harvesting of country foods and cultural practices that support the health and socio-economic conditions of Pays Plat First Nation.	The Government of Canada agrees with the intent of this recommendation. Under the Great Lakes Protection Initiative, a project funding commitment was provided to Pays Plat First Nation in 2022. Through the Great Lakes Protection Initiative, the Government of Canada takes action to address the most significant environmental challenges affecting Great Lakes water quality and ecosystem health by delivering on Canada's commitments under the Canada-United States Great Lakes Water Quality Agreement. The Project is not expected to affect Great Lakes Water Quality. While the Great Lakes Protection initiative is not specifically designed to address, avoid, or accommodate Project impacts, it complements other activities designed to assist Pays Plat First Nation's broader objectives. The Agency has also provided information and offered to assist Pays Plat First Nation on submitting a proposal to ISC FNIHB for the following potential funding opportunities: 1. First Nations Environmental Contaminants Program

		 3. Climate Change Health and Adaptation Program 4. Pathways to Safe Indigenous Communities Initiative
116	Support initiatives to provide culturally appropriate places for the transfer of intergenerational knowledge necessary for cultural, spiritual, and mental health.	The Governments of Canada and Ontario agree with the intent of this recommendation. The Agency notes the JRP's conclusions that the Project, in combination with other projects and physical activities that have been or will be carried out, is not likely to cause a significant cumulative effects on Métis Nation of Ontario's current use of lands and resources for traditional purposes, physical and cultural heritage, and health. Although the Crown is of the view that mitigation measures, permitting commitments and environmental assessment conditions have sufficiently addressed the Project's potential adverse impacts to Métis Nation of Ontario's asserted Section 35 rights, the Crown has shared potential funding initiatives with Métis Nation of Ontario that align with the recommendation of the JRP. The Agency remains available to further discuss these opportunities with the Métis Nation of Ontario. The Ministry of Natural Resources and Forestry will support interested communities with any ministry permits or authorizations necessary for a cultural knowledge initiative, presently under discussion with the federal government.
123	MNDMNRF should work collaboratively with Biigtigong Nishnaabeg on moose management and continue to look for ways to address Biigtigong Nishnaabeg's interests and concerns.	The Government of Ontario agrees with this recommendation. The Ministry of Natural Resources and Forestry will consult with Biigtigong Nishnaabeg on moose tag allocations for Wildlife Management Unit 21A and consider Biigtigong Nishnaabeg's input as part of moose harvest planning for this Wildlife Management Unit. The Ministry of Natural Resources and Forestry has committed to participate in meetings with Biigtigong Nishnaabeg to better understand their goals and how the Ministry of Natural Resources

		and Forestry may collaborate with them on moose management. Meetings began in November 2022. Biigtigong Nishnaabeg and the Ministry of Natural Resources and Forestry have formed a working group to support continued discussions and consultation, with the first working group meeting have occurred on September 15, 2022. A follow up meeting has been scheduled for December 2022.
124	The federal and/or provincial government should continue to explore the potential need for a principles-based monitoring committee to address potential impacts on Indigenous rights that cannot be addressed by the Proponent's proposed monitoring committees. A principles-based monitoring committee would be distinct from the requirement for monitoring led by the Proponent as part of a follow-up program. Should the need be confirmed, the committee should include the participation of Biigtigong Nishnaabeg, as well as other Indigenous groups.	The Governments of Canada and Ontario agree with this recommendation. The Agency has been actively engaging with Biigtigong Nishnaabeg regarding the establishment of a principles-based monitoring committee which would facilitate the inclusion of Indigenous people in the monitoring and regulatory oversight of the Project, and the design of adaptive management measures. The membership of this Committee will consist of representatives from the Biigtigong Nishnaabeg, federal authorities and provincial ministries. This committee will provide a cooperative forum, supported by technical resources, for Biigtigong Nishnaabeg, Governments and Regulatory Authorities to engage in ongoing dialogue regarding Project performance and for undertaking monitoring activities. The Committee will enable additional opportunities for the inclusion of Indigenous knowledge to inform the collective understanding of project effects on the environment and on the culture and exercise of the asserted Aboriginal title rights and interests of Biigtigong Nishnaabeg. The Committee will also undertake independent monitoring activities to respond to Biigtigong Nishnaabeg's priorities related to the Project's effects. The Committee will serve as a mechanism for communication of project-related information with Biigtigong Nishnaabeg in the post-decision phase. The Agency has developed a framework for tracking and reporting on
		the Proponent's follow-up program results. A key component of this

framework is the engagement of Indigenous groups named in the decision statement to review and provide feedback on the contents of the Agency's Follow-up Reports and any recommendations put forward. Indigenous groups can provide views on whether there is agreement with the Agency's analysis and whether in their view the Proponent has provided sufficient information to support their determination of whether the predictions in the environmental assessment are accurate and whether mitigation measures are effective. Additionally, Indigenous groups can provide views on whether recommendations are being incorporated during the consultation undertaken by the Proponent in the development of a follow-up program. The Agency will provide funding on an annual basis through its participant funding program to support the involvement of Indigenous groups in this process.

The Agency has worked with relevant departments to make use of existing initiatives that align with Biigtigong Nishnaabeg's stewardship objectives and enhanced oversight and management of its asserted exclusive Aboriginal Title area. Some of these initiatives include:

- Funding over three years from ISC-FNIHB under the First Nations Baseline Assessment Program on Health and the Environment;
- Funding from the Agency's Indigenous Capacity Support Program Stream 3 to assist with community-led water quality, fish tissue and aquatic monitoring;
- Funding from the Agency to assist Biigtigong Nishnaabeg in developing a Principles-Based Monitoring Committee to address potential impacts on its Section 35 rights that cannot be addressed by the Proponent's commitments or proposed EA conditions to develop and establish proposed monitoring programs and committees;

 The Agency and ECCC continue to work with Biigtigong Nishnaabeg to support its application for an Indigenous-Led Area-Based Conservation program.

In addition, in June 2021, ECCC funded a new monitoring hub under the Swim Drink Fish Great Lakes Communities Recreational Waters Monitoring Initiative program. ECCC also provided funding for Biigtigong Nishnaabeg's participation in the Lake Superior Water Quality Monitoring and Jackfish Bay Area of Concern Recovery Assessment. These are existing programs and not specifically designed to address, avoid, or accommodate impacts on Biigtigong Nishnaabeg's rights. Through the Great Lakes Protection Initiative, the Government of Canada takes action to address the most significant environmental challenges affecting Great Lakes water quality and ecosystem health by delivering on Canada's commitments under the Canada-United States Great Lakes Water Quality Agreement. The project is not expected to affect Great Lakes Water Quality.