

December 30, 2021

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Dear Mr. Courville,

Re: Greenstone Mine, Annual Report for the Environmental Impact Statement, Condition 2.10

Greenstone Gold Mines GP Inc. (GGM) proposes to construct, operate and ultimately decommission/close a new open pit gold mine, process plant, and associated ancillary facilities, collectively known as the Greenstone Mine (the Mine). The Mine's Environmental Impact Statement was approved by the federal Minister of the Environment as outlined in the Decision Statement issued December 10, 2018, under Section 54 of the Canadian Environmental Assessment Act, 2012. The Annual Report for the Environmental Impact Statement, Condition 2.10 has been developed and submitted to satisfy Federal EIS Condition 2.10.

Should you have any questions or comments, please contact the undersigned.

Sincerely,

<Original signed by>

Shane Hayes
Environmental Superintendent

cc: Michelle Fraser, Stantec Consulting Ltd.
Mike Johns, Stantec Consulting Ltd.
Lesley Lorrimer, Stantec Consulting Ltd.
Laura Vares, Greenstone Gold Mines

Greenstone Mine

Annual Report for the Environmental Impact Statement, Condition 2.10

HP-MG003-EV-136-0016_A

December 30, 2021

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List of Acronyms

AFN	Aroland First Nation
AZA	Animbiigoo Zaagi'igan Anishinaabek
DFO	Fisheries and Oceans Canada
EA	environmental assessment
ECCC	Environment and Climate Change Canada
GFN	Ginoogaming First Nation
GGM	Greenstone Gold Mines
IAAC	Impact Assessment Agency Canada
LLFN	Long Lake #58 First Nation
MECP	Ontario Ministry of the Environment, Conservation and Parks
MNO	Métis Nation of Ontario
MNRF	Ontario Ministry of Natural Resources and Forestry
MTO	Ontario Ministry of Transportation
RSMIN	Red Sky Métis Independent Nation

Executive Summary – English

Greenstone Gold Mines (GGM) is planning to construct, operate and ultimately decommission/close a new open pit gold mine, process plant, and associated ancillary facilities, collectively known as the Greenstone Mine (the Mine), formerly known as the Hardrock Project (the Project).

The Minister of the Environment and Climate Change issued a Decision Statement under Section 54 of the Canadian Environmental Assessment Act, 2012 (Decision Statement, dated December 10, 2018) for the Project's Environmental Impact Statement (EIS), which included a series of conditions to be met for GGM to proceed with the Project. This report is submitted to meet the Annual Report requirements described under Condition 2.9 of the Decision Statement and describes activities undertaken by GGM to comply with each of the conditions in the Decision Statement during the reporting period of October 1, 2020 to September 30, 2021.

Mine construction started March 1, 2021, with tree clearing activities, which allowed for the construction of a temporary camp to house mine workers, the set-up of construction trailers, and the construction of a temporary effluent treatment plant (TETP). No activities that involved the excavation or movement of soil occurred prior to the TETP being commissioned on September 15, 2021. Monitoring results are presented in various Annual Follow-up Monitoring Reports, which are summarized herein. Most of the data collected are considered baseline data due to limited construction activity during the reporting period.

Other activities undertaken during the reporting period to comply with the Decision Statement conditions were related to consultation on management and monitoring plans, including the development of follow-up programs. GGM has established environmental advisory committees with the local Indigenous groups, which meets regularly. These committees have agreed upon methods of communication, types of information to be provided, review timelines and discussion of views/information.

Executive Summary – French

Greenstone Gold Mines (GGM) prévoit de construire, d'exploiter et finalement de fermer une nouvelle mine d'or à ciel ouvert, une usine de traitement des minerais et des installations secondaires, connues sous le nom de mine Greenstone.

L'évaluation environnementale du projet a été approuvée par le ministre de l'Environnement et du Changement climatique, tel indiqué dans la déclaration de décision émise aux termes de l'article 54 de la Loi canadienne sur l'évaluation environnementale (2012) (déclaration de décision du 10 décembre 2018). Ce document est soumis pour répondre aux exigences décrites dans la condition 2.9 de la déclaration de décision du Rapport Annuel. Il décrit les activités accomplies par GGM pour se conformer à toutes les conditions de la déclaration de décision pendant la période de référence de octobre 2020 à septembre 2021.

La construction de la mine a commencé le 1er mars 2021 avec des activités de déblaiement des arbres, qui ont permis la construction d'un camp temporaire pour loger les travailleurs de la mine, l'installation de remorques de construction et la construction d'une usine temporaire de traitement des effluents. Aucune activité impliquant l'excavation ou le déplacement du sol n'a eu lieu avant la mise en service de l'usine temporaire de traitement des effluents le 15 septembre 2021.

Les résultats de la surveillance sont présentés dans divers rapports annuels de surveillance de suivi, qui sont résumés ici. La plupart des données recueillies sont considérées comme des données de référence en raison des activités de construction limitées au cours de la période visée par le rapport.

D'autres activités entreprises au cours de la période visée par le rapport pour se conformer aux conditions de l'énoncé de décision étaient liées à la consultation sur les plans de gestion et de surveillance, y compris l'élaboration de programmes de suivi. GGM a créé des comités consultatifs environnementaux avec les groupes autochtones locaux qui se réunissent régulièrement. Les comités se sont mis d'accord sur les méthodes de communication, les types d'informations à fournir, les délais de réponses, calendriers et discussion avis / informations.

1 Introduction

Greenstone Gold Mines (GGM) is planning to construct, operate and ultimately decommission/close a new open pit gold mine, process plant, and associated ancillary facilities, collectively known as the Greenstone Mine (the Mine), formerly known as the Hardrock Project (the Project).

The Minister of the Environment and Climate Change issued a Decision Statement under Section 54 of the Canadian Environmental Assessment Act, 2012 (Decision Statement, dated December 10, 2018) for the Project's Environmental Impact Statement (EIS), which included a series of conditions to be met for GGM to proceed with the Project. Note that the EIS was completed under the oversight of the Canadian Environmental Assessment Agency (CEAA), now known as the Impact Assessment Agency of Canada (IAAC).

This report has been prepared to meet the Annual Report requirements described under Condition 2.9 of the Decision Statement and describes activities undertaken by GGM to comply with each of the conditions in the Decision Statement during the reporting period of October 1, 2020 to September 30, 2021. As specified in Condition 2.10, the first Annual Report is required to be submitted no later than December 31 following the reporting year to which the annual report applies. The first Annual Report was submitted to the IAAC on December 23, 2020, with subsequent reports to follow.

Mine construction started March 1, 2021, with tree clearing activities, which allowed for the construction of a temporary camp to house mine workers, the set-up of construction trailers, and the construction of a temporary effluent treatment plant (TETP). No activities that involved the excavation or movement of soil occurred prior to the TETP being commissioned on September 15, 2021. Other activities undertaken during the reporting period to comply with the Decision Statement conditions were related to consultation on management and monitoring plans, including the development of follow-up programs. GGM has established environmental advisory committees with the local Indigenous groups, which meet regularly. These committees have agreed upon methods of communication, types of information to be provided, review timelines, and discussion of views/information.

2 Annual Report Requirements

Condition 2.9, of the Decision Statement outlines the requirements for the Annual Report as follows:

2.9 The Proponent shall, commencing in the reporting year during which the Proponent begins the implementation of the conditions set out in this Decision Statement, prepare an annual report that sets out:

2.9.1 the activities undertaken by the Proponent in the reporting year to comply with each of the conditions set out in this Decision Statement;

2.9.2 how the Proponent complied with condition 2.1;

2.9.3 for conditions set out in this Decision Statement for which consultation is a requirement, how the Proponent considered any views and information that the Proponent received during or as a result of the consultation;

2.9.4 the information referred to in conditions 2.4 and 2.5 for each follow-up program;

2.9.5 the results of the follow-up program requirements identified in conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9; and
2.9.6 any modified or additional mitigation measures implemented or proposed to be implemented by the Proponent, as determined under condition 2.7.

These requirements are addressed in Sections 2.1 through 0.

2.1 Activities Undertaken between October 1, 2020 to September 30, 2021 to Comply with Conditions (Condition 2.9.1)

Table 1 presents a list of the conditions included in the EIS Decision Statement for the Project and describes the activities that GGM carried out during the reporting period to comply with the conditions.

Table 1: List of Conditions and Activities Undertaken during Reporting Period to Comply with EIS Decision Statement Conditions

Condition Number	Description	Activities Undertaken
2.1	GGM shall ensure that its actions in meeting the conditions set out in the CEAA Decision Statement during all phases of the Designated Project are considered in a careful and precautionary manner, promote sustainable development, are informed by the best information and knowledge available at the time the Proponent takes action, including community and Indigenous traditional knowledge, are based on methods and models that are recognized by standard-setting bodies, are undertaken by qualified individuals, and have applied the best available economically and technically feasible technologies.	Refer to Section 2.2 of this Annual Report.
2.2	Where consultation is a requirement of a condition set out in the CEAA Decision Statement: 2.2.1 provide a written notice of the opportunity for the party or parties being consulted to present their views and information on the subject of the consultation; 2.2.2 provide all information relevant and applicable on the scope and the subject matter of the consultation and a period of time agreed upon with the party or parties being consulted, not to be less than 15 days, to prepare their views and information; 2.2.3 undertake an impartial consideration of all views and information presented by the party or parties being consulted on the subject matter of the consultation; and 2.2.4 advise in a timely manner the party or parties being consulted on how the views and information received have been considered by the Proponent.	Where consultation is a requirement, GGM provided draft documents, received written comments, which were responded to and discussed in meetings where necessary. Refer to Section 2.3 of this report for further information.
2.3	Where consultation with Indigenous groups is a requirement of a condition set out in the CEAA Decision Statement, communicate with each Indigenous group with respect to the manner to satisfy the consultation requirements referred to in condition 2.2, including methods of notification, the type of information and the period of time to be provided when seeking input, the process to be used by the Proponent to undertake impartial consideration of all views and information presented on the subject of the consultation, and the period of time and the means to advise Indigenous groups of how their views and information were considered by the Proponent.	GGM has established environmental advisory committees (EAC) with Indigenous groups which methods of communication, types of information to be provided, review timelines and discussion of views/information have been agreed upon.

Condition Number	Description	Activities Undertaken
2.4	<p>Where a follow-up program is a requirement of a condition set out in the CEAA Decision Statement, determine, as part of the development of each follow-up program and in consultation with the party or parties being consulted during the development, the following information:</p> <p>2.4.1 the methodology, location, frequency, timing and duration of monitoring associated with the follow-up program;</p> <p>2.4.2 the scope, content and frequency of reporting of the results of the follow-up program;</p> <p>2.4.3 the levels of environmental change relative to baseline conditions that would require the Proponent to implement modified or additional mitigation measure(s), including instances where the Proponent may require Designated Project activities to be stopped; and</p> <p>2.4.4 the technically and economically feasible mitigation measures to be implemented by the Proponent if monitoring conducted as part of the follow-up program shows that the levels of environmental change referred to in condition 2.4.3 have been reached or exceeded.</p>	Refer to Conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9 below.
2.5	Maintain the information referred to in condition 2.4 during the implementation of each follow-up program in consultation with the party or parties being consulted during the development of each follow-up program.	Refer to Conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9 below.
2.6	Provide the follow-up programs referred to in conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9 to CEAA and to the party or parties being consulted during the development of each follow-up program prior to the implementation of each follow-up program. The Proponent shall also provide any update(s) made pursuant to condition 2.5 to the Agency and to the party or parties being consulted during the development of each follow-up program within 30 days of the follow-up program being updated.	Refer to Conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9 below.

Condition Number	Description	Activities Undertaken
2.7	<p>Where a follow-up program is a requirement of a condition set out in the CEAA Decision Statement:</p> <p>2.7.1 conduct the follow-up program according to the information determined pursuant to condition 2.4;</p> <p>2.7.2 undertake monitoring and analysis to verify the accuracy of the environmental assessment as it pertains to the particular condition and/or to determine the effectiveness of any mitigation measure(s);</p> <p>2.7.3 determine whether modified or additional mitigation measures are required based on the monitoring and analysis undertaken pursuant to condition 2.7.2; and</p> <p>2.7.4 if modified or additional mitigation measures are required pursuant to condition 2.7.3, develop and implement these mitigation measures in a timely manner and monitor them pursuant to condition 2.7.2.</p>	<p>Follow-up programs that were implemented during the reporting period are discussed in Section 2.5 of this report.</p>
2.8	<p>Where consultation with Indigenous groups is a requirement of a follow-up program, GGM shall discuss with each Indigenous group opportunities for their participation in the implementation of the follow-up program, including the analysis of the follow-up results and whether modified or additional mitigation measures are required, as set out in condition 2.7.</p>	<p>GGM has funded an environmental technician from five Indigenous communities who are involved in the implementation of the follow-up programs, including the analysis of the follow-up results and whether modified or additional mitigation measures are required.</p>
2.9	<p>Commencing in the reporting year during which GGM begins the implementation of the conditions set out in the CEAA Decision Statement, prepare an annual report that sets out:</p> <p>2.9.1 the activities undertaken by the Proponent in the reporting year to comply with each of the conditions set out in the CEAA Decision Statement;</p> <p>2.9.2 how the Proponent complied with condition 2.1;</p> <p>2.9.3 for conditions set out in the CEAA Decision Statement for which consultation is a requirement, how the Proponent considered any views and information that the Proponent received during or as a result of the consultation;</p> <p>2.9.4 the information referred to in conditions 2.4 and 2.5 for each follow-up program;</p> <p>2.9.5 the results of the follow-up program requirements identified in conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9; and</p> <p>2.9.6 any modified or additional mitigation measures implemented or proposed to be implemented by the Proponent, as determined under condition 2.7.</p>	<p>Submission of this annual report.</p>

Condition Number	Description	Activities Undertaken
2.10	Submit an annual report to CEAA, referred to in condition 2.9, including an executive summary in both official languages, no later than December 31 following the reporting year to which the annual report applies.	Submission of this annual report.
2.11	Publish on the Internet, or any medium which is publicly available, the annual reports and the executive summaries referred to in conditions 2.9 and 2.10, the information submitted to CEAA pursuant to condition 2.15, the offsetting plan(s) referred to in condition 3.12, the Community Relations Management Plan referred to in condition 5.7, the Community Relations Management Plan referred to in condition 6.4, the concerns raised pursuant to condition 6.5 and measures taken by the Proponent to address these concerns, the bald eagle (<i>Haliaeetus leucocephalus</i>) protection plan referred to in condition 7.1, the reports related to accidents and malfunctions referred to in conditions 9.4.2 and 9.4.3, the Community Relations Management Plan referred to in condition 9.5, the schedules referred to in conditions 10.1, and 10.2, and any update(s) or revision(s) to the above documents, upon submission of these documents to the parties referenced in the respective conditions. The Proponent shall keep these documents publicly available for 25 years following the end of operation, or until the end of decommissioning of the Designated Project, whichever comes first. The Proponent shall notify the CEAA and Indigenous groups of the availability of these documents within 48 hours of their publication.	This report and other finalized documents are published on the GGM website. https://www.greenstonegoldmines.com/
2.12	When the development of any plan is a requirement of a condition set out in the CEAA Decision Statement, GGM shall submit the plan to CEAA prior to construction, unless otherwise required through the condition.	Refer to Conditions 3.15, 3.16, 3.17, 4.6, 4.7, 5.3, 5.4, 5.5 and 6.9 below.
2.13	GGM must notify CEAA and Indigenous groups in writing no later than 30 days after the day on which there is any transfer of ownership, care, control or management of the Designated Project in whole or in part.	N/A: no transfer of ownership, care, control or management of the Designated Project in whole or in part occurred during reporting period.
2.14	Consult with Indigenous groups and relevant authorities prior to initiating any changes to the Designated Project that may result in adverse environmental effects, and shall notify the CEAA in writing no later than 60 days prior to initiating the change(s).	Design Optimization Report sent to Indigenous communities, Ontario Ministry of the Environment, Conservation and Parks (MECP) and IAAC for review/comment in October 2019. A project update was deemed filed and no amendment required by IAAC on April 14, 2021 regarding the clearing of additional trees in the temporary camp location.

Condition Number	Description	Activities Undertaken
2.15	In notifying CEAA pursuant to condition 2.14, GGM shall provide a description of the potential adverse environmental effects of the change(s) to the Designated Project, the proposed mitigation measures and follow-up requirements to be implemented by GGM and the results of the consultation with Indigenous groups and relevant authorities.	Design Optimization Report and Addendum provided to Indigenous communities, Ontario Ministry of the Environment, Conservation and Parks (MECP) and Impact Assessment Agency in October 2019 and April 2020.. A project update was deemed filed and no amendment required by IAAC on April 14, 2021 regarding the clearing of additional trees in the temporary camp location.
3.1	Salvage and relocate fish prior to conducting any Designated Project activity requiring removal of fish habitat in a manner consistent with any authorization issued under the Fisheries Act and its regulations. The Proponent shall salvage and relocate fish in consultation with Indigenous groups and to the satisfaction of Fisheries and Oceans Canada and other relevant authorities. 3.1.1 GGM shall discuss, prior to the start of fish salvaging and relocating activities, with each Indigenous group, opportunities for their participation in these activities.	Fish salvages were not conducted in the 2021 monitoring year. The realignment of Goldfield Creek is anticipated to occur in the 2022 reporting period and GGM will conduct this activity in accordance with condition 3.1.
3.2	Develop, prior to the start of blasting activities in or near water, and implement, during blasting activities in or near water, mitigation measures to avoid or prevent adverse effect to fish and fish habitat from the use of explosives in a manner consistent with the Fisheries Act and its regulations. When developing these measures, the Proponent shall take into account Fisheries and Oceans Canada's Measures to avoid causing harm to fish and fish habitat including aquatic species at risk as it pertains to the use of explosives in or near water. The Proponent shall submit these measures to CEAA before implementing them.	N/A: Blasting near fish and fish habitat did not occur in the 2021 monitoring year. Hence, the NVMMP, as it relates to fish and fish habitat, was not implemented in 2021.

Condition Number	Description	Activities Undertaken
3.3	Design, install and operate the water intake structures in Kenogamisis Lake in a manner which reduces the incidental capture of fish by entrainment and impingement through the use of an appropriately sized fish screen, taking into account Fisheries and Oceans Canada's Freshwater Intake End-of-Pipe Fish Screen Guideline and in a manner consistent with the Fisheries Act and its regulations.	One surface water intakes was installed in the Southwest Arm of Kenogamisis Lake. The intake is located north of the confluence of the Southwest Arm Tributary with the lake. Design of the water intake structure was in a manner consistent with the Fisheries Act and its regulations completed during reporting period. The pump was installed on a flotation module that is anchored to the bottom of the lake and the pipeline floats on the lake surface using buoys. The pump was submerged in a mesh cage under the floating module with a maximum opening mesh size of 2.54 mm to meet the Freshwater Intake End-of-Pipe Fish Screen Guidelines (DFO 1995).
3.4	Comply with the Metal and Diamond Mining Effluent Regulations and the pollution prevention provisions of the Fisheries Act.	GGM began sampling TETP effluent as per the MDMER requirements in September 2021, when the TETP began discharging. The biological sampling requirements of MDMER are not yet required.
3.5	Collect and direct contact water from the waste rock storage areas (including any temporary storage location of excavated historical tailings), overburden storage area and ore stockpile to contact water collection ditches for reuse in Designated Project activities, and treat excess water that cannot be reused.	Excess soil was stored in WRSA C. Contact water from the portion of WRSA C that was used for soil storage was collected via Pond B1 where it was sent to the TETP for treatment prior to discharge. No other WRSAs or the overburden storage area and ore stockpile were operational during the reporting period.
3.6	Collect and direct, during operation, contact water from the tailings management facility, including the final location of the excavated historical tailings, to the collection ponds associated with the tailings management facility.	N/A: no construction or operation activities occurred during reporting period.
3.7	Install, prior to operation, and use a cyanide destruction circuit to reduce cyanide concentrations in tailings before the tailings are directed to the tailings management facility during operation.	N/A: no construction or operation activities occurred during reporting period.

Condition Number	Description	Activities Undertaken
3.8	Maintain the contact water collection ditches around the waste rock storage areas, overburden storage area, ore stockpile and the tailings management facility after operation and as necessary to comply with the Metal and Diamond Mining Effluent Regulations and the pollution prevention provisions of the Fisheries Act.	Excess soil was stored in WRSA C. Contact water from the portion of WRSA C that was used for soil storage was collected via Pond B1 where it was sent to the TETP for treatment prior to discharge. No other WRSAs or the overburden storage area and ore stockpile were operational during the reporting period.
3.9	GGM shall not connect the pit lake to Kenogamisis Lake until such time that water in the pit lake complies with the pollution prevention provisions of the Fisheries Act.	N/A: no construction or operation activities occurred during reporting period.
3.10	GGM shall treat contact water taking into account the Canadian Council of Minister of the Environment's Canadian Water Quality Guidelines for Protection of Aquatic Life.	GGM began operation of the TETP in September 2021, taking into account the Canadian Council of Minister of the Environment's Canadian Water Quality Guidelines for Protection of Aquatic Life
3.11	GGM shall mitigate, in consultation with Indigenous groups and relevant authorities, the adverse environmental effects on water quality, including in the Southwest Arm, Central Basin and Barton Bay of Kenogamisis Lake, Goldfield Creek Tributary, Mosher Lake and the Southwest Arm Tributary, caused by the presence of unexcavated historical tailings. In doing so, the Proponent shall promote runoff and reduce infiltration by: 3.11.1 covering the exposed portions of the in situ historical tailings. The Proponent shall complete the covering of the in situ historical tailings as soon after tailings have been excavated as technically feasible; and 3.11.2 managing contaminated soils near the historical Hardrock and Macleod-Mosher plant sites and the unexcavated historical tailings.	N/A: no historical tailings were moved during the reporting period.
3.12	GGM shall develop, to the satisfaction of Fisheries and Oceans Canada and Environment and Climate Change Canada and in consultation with Indigenous groups, any offsetting plan(s) related to any residual serious harm to fish associated with the carrying out of the Designated Project. The Proponent shall implement the plan. The Proponent shall submit any approved offsetting plan(s) to the Agency prior to implementation.	Offsetting plan developed in consultation with Indigenous communities, DFO and ECCC during reporting period and approved by DFO in April 2020

Condition Number	Description	Activities Undertaken
3.13	GGM shall, for any fish habitat offsetting measure(s) proposed in any offsetting plan(s) referred to in condition 3.12 that may cause adverse environmental effects not considered in the environmental assessment, develop and implement, following consultation with Indigenous groups, Fisheries and Oceans Canada and Environment and Climate Change Canada, measures to mitigate those effects. The Proponent shall submit these measures to the Agency before implementing them.	Offsetting plan developed in consultation with Indigenous communities, DFO and ECCC during reporting period and approved in April 2020
3.14	GGM shall develop, prior to construction, and implement, during all phases of the Designated Project and in a manner consistent with the Fisheries Act and its regulations, measures to control erosion and sedimentation in the project development area. The Proponent shall submit these measures to the Agency before implementing them. Among other measures, the Proponent shall maintain stream bank stability using ditches and diversion berms.	As per the requirements of Condition 3.14, GGM has developed and implemented measures to control erosion and sedimentation for the Mine (GGM 2020a). Erosion and sediment control monitoring results related to potential effects on fish and fish habitat are presented in the 2021 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2021).
3.15	GGM shall develop, prior to the start of blasting activities in or near water and in consultation with relevant authorities, a follow-up program to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects of blasting on fish and fish habitat, including aquatic listed species at risk. The Proponent shall implement the follow-up program during blasting activities. As part of the implementation of the follow-up program, the Proponent shall: 3.15.1 monitor instantaneous pressure and peak particle velocity during the first blasting event; 3.15.2 if the results of the monitoring referred to in conditions 3.15.1 demonstrate that modified or additional mitigation measures are required to protect fish and fish habitat, including aquatic listed species at risk, from blasting, develop, prior to the next blasting event and in consultation with relevant authorities, modified or additional mitigation measures pursuant to condition 2.7; and 3.15.3 implement the modified or additional mitigation measures referred to in condition 3.15.2 during all subsequent blasting events. The Proponent shall submit these measures to the Agency before implementing them.	A Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan was completed in March 2021, which included a follow-up program to validate the EIS and the effectiveness of the mitigation measures as it pertains to the potential effects of blasting on fish and fish habitat. A single blast occurred in the 2021 reporting period but was not located near fish and fish habitat.

Condition Number	Description	Activities Undertaken
3.16	<p>GGM shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects on fish and fish habitat caused by changes in water quality in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary. The Proponent shall implement the follow-up program during all phases of the Designated Project, including the environmental effects monitoring requirements set out in Schedule 5 of the Metal and Diamond Mining Effluent Regulations. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>3.16.1 monitor, at least quarterly during all phases of the Designated Project, nutrient levels, algae abundance, and dissolved oxygen levels in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary;</p> <p>3.16.2 monitor, at least quarterly during the time that effluent is discharged in Kenogamisis Lake, concentrations of arsenic, unionized ammonia and total phosphorus in Kenogamisis Lake;</p> <p>3.16.3 monitor, at least quarterly during all phases of the Designated Project, concentrations of arsenic in Mosher Lake, Barton Bay and the Southwest Arm Tributary; and</p> <p>3.16.4 if the results of the monitoring referred to in conditions 3.16.1, 3.16.2 or 3.16.3 demonstrate that modified or additional mitigation measures are required to protect fish and fish habitat from changes to water quality, develop and implement modified or additional mitigation measures pursuant to condition 2.7. The Proponent shall submit these measures to the Agency before implementing them.</p>	<p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021a) was completed in February 2021 and addresses seven specific Conditions of the Decision Statement for the Project (3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1). The first monitoring report was completed in December 2021 (GGM 2021b) and was provided to IAAC.</p>

Condition Number	Description	Activities Undertaken
3.17	<p>GGM shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on fish and fish habitat of from changes in groundwater quality caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>3.17.1 monitor groundwater seepage flows, levels and quality at sites located upgradient, downgradient and cross-gradient of the tailings management facility, waste rock storage areas, overburden storage area, ore stockpile and historical Macleod and Hardrock tailings, using as benchmarks the concentrations predicted by the Proponent in Table 9-20 of the Environmental Impact Statement; and</p> <p>3.17.2 if the results of the monitoring referred to in condition 3.17.1 demonstrate that modified or additional mitigation measures are required to mitigate adverse environmental effects on fish and fish habitat of changes in groundwater quality caused by the Designated Project, develop and implement modified or additional mitigation measures pursuant to condition 2.7. The Proponent shall submit these measures to the Agency before implementing them.</p>	<p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan was completed in February 2021 and addresses seven specific Conditions of the Decision Statement for the Project (3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1). The first monitoring report that addressed Condition 3.17 and others was completed in December 2021 (GGM 2021b) and was provided to IAAC.</p>
4.1	<p>Carry out the Designated Project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's Avoidance Guidelines and the risk of incidental take. The Proponent's actions when carrying out the Designated Project shall be in compliance with the Migratory Birds Convention Act, 1994, the Migratory Birds Regulations and the Species at Risk Act.</p>	<p>Tree clearing occurred within the appropriate timing window for the protection of migratory birds. Limited tree clearing also occurred in late winter, within the restrictive timing window. During this late winter period, nest sweeps were conducted prior to tree clearing, as required. Results will be presented in the Environmental Impact Statement Conditions of Approval 4 and 7, Annual Report (currently in draft)</p>
4.2	<p>Undertake, in consultation with Indigenous groups and relevant authorities, progressive reclamation of the project development area. The Proponent shall identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, plant species native to the area of the Designated Project to use for revegetation as part of the progressive reclamation, including species suitable to create habitat for migratory birds.</p>	<p>Final Closure Plan filed January 9, 2020 Draft Revegetation Plan and draft Goldfield Creek Realignment Biodiversity Monitoring Plan (Appendices K and L, respectively of BMMP) were developed and sent to Indigenous communities and MNRF for review/comment in October 2019. The BMMP was finalized (GGM 2020c)</p>

Condition Number	Description	Activities Undertaken
4.3	Compensate, in consultation with relevant authorities, the loss of barn swallow (<i>Hirundo rustica</i>) nesting sites as a result of the Designated Project, taking into account Ontario's Recovery Strategy for Barn Swallow (<i>Hirundo rustica</i>). In doing so, the Proponent shall install, prior to construction, and maintain, during three years, artificial barn swallow (<i>Hirundo rustica</i>) nesting structures.	N/A: removal of barn swallow nesting sites or installation of replacement habitat did not occur during reporting period.
4.4	Establish, during construction, a speed limit of no more than 65 kilometres per hour on all roads within the project development area, including the portion of Highway 11 to be realigned by the Proponent located within the project development area, and shall require employees and contractors associated with the Designated Project to abide by this limit.	Within the PDA, construction of East Access Road occurred during the reporting period. The assigned speed limit to this road is 30 km/hr, which is less than the required 65 km/hr. Construction of Highway 11 did not occur during the reporting period and therefore, there was no reduction in the speed limit of Highway 11 during the reporting period.
4.5	Establish, during operation and decommissioning, a speed limit of no more than 65 kilometres per hour on all roads within the project development area, excepting the portion of Highway 11 located within the project development area, and shall require employees and contractors associated with the Designated Project to abide by this limit.	N/A: operation or decommissioning did not occur during reporting period.

Condition Number	Description	Activities Undertaken
4.6	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the use by migratory birds of surface water facilities in the project development area. As a part of the implementation of the follow-up program, the Proponent shall:</p> <p>4.6.1 monitor, at times migratory birds may be present in the project development area, the use by migratory birds of the tailings management facility, contact water collection ditches and collection ponds during all phases of the Designated Project until such time that water quality in these structures meet legislative requirements and water quality objectives. The water quality objectives are to be established using an ecological risk based approach, developed in consultation with Indigenous groups and relevant authorities;</p> <p>4.6.2 monitor, at times migratory birds may be present in the project development area, the use by migratory birds of the pit lake from the start of filling of the pit lake and until the end of decommissioning; and</p> <p>4.6.3 if results of the monitoring referred to in conditions 4.6.1 or 4.6.2 indicate that migratory birds use the tailing management facility, the contact water collection ditches, the collection ponds or the pit lake, develop and implement deterrent measures pursuant to condition 2.7. The Proponent shall submit these measures to the Agency before implementing them.</p>	<p>The plan to address Condition 4.6 is presented in Appendix E of the BMMP (GGM 2020b), which has been developed based on consultation with Indigenous communities.</p>

Condition Number	Description	Activities Undertaken
4.7	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of all mitigation measures to avoid harm to migratory birds, their eggs and nests, including the mitigation measures used to comply with conditions 4.1 to 4.5. As part of the development of the follow-up program, the Proponent shall identify performance indicators that shall be used by the Proponent to evaluate the effectiveness of the progressive reclamation referred to in condition 4.2. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>4.7.1 conduct migratory bird surveys annually for the first five years following completion of construction to assess migratory bird use of the project development area. The Proponent shall determine the methodology for the migratory bird surveys in consultation with Indigenous groups and relevant authorities. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the initial surveys, if additional surveys within the project development area are required after the first five years following completion of construction and at what frequency and in which locations these additional surveys shall occur;</p> <p>4.7.2 monitor the effectiveness of the progressive reclamation referred to in condition 4.2, including the establishment of native plant species to create habitat for migratory birds, annually during operation and during the first five years of decommissioning and every five years thereafter until the proponent has determined, in consultation with Indigenous groups and relevant authorities, that the performance indicators have been met;</p> <p>4.7.3 monitor barn swallow (<i>Hirundo rustica</i>) nesting activity and use of the artificial nesting structures referred to in condition 4.3 annually during the first three years following the installation of the nesting structures and at times barn swallow (<i>Hirundo rustica</i>) may be present in the project development area; and</p> <p>4.7.4 monitor collisions between vehicles associated with the Designated Project and migratory birds within the project development area during all phases of the Designated Project.</p>	<p>The plan to address Condition 4.7 is presented in the BMMP (GGM 2020b), which has been developed based on consultation with Indigenous communities.</p> <ul style="list-style-type: none"> • Condition 4.7.1: N/A - migratory birds surveys will be conducted post construction as required • Condition 4.7.2: N/A – progressive rehabilitation will be conducted during operation and closure as required • The plan to address Condition 4.7.3 is presented in Appendix I of the BMMP • The plan to address Condition 4.7.3 is presented in Appendix D of the BMMP

Condition Number	Description	Activities Undertaken
5.1	Develop, prior to construction and in consultation with Indigenous groups, measures to mitigate emissions of dust generated by the Designated Project, including dust from vehicles associated with the Designated Project on roads located within the project development area and dust generated during the transport of historical tailings, that take into account the standards and criteria set out in the Canadian Council of Ministers of the Environment's Canadian Ambient Air Quality Standards and Ontario's Ambient Air Quality Criteria. The Proponent shall submit these measures to the Agency before implementing them. The Proponent shall implement these measures during construction, operation and the first five years of decommissioning.	Measures to mitigate emissions of dust developed as part of the Air Quality Management and Monitoring Plan (AQMMP)(GGM 2020c) were sent to Indigenous communities for review/comment in October 2019 and ECCC in July 2020.
5.2	Proponent shall install prior to operation, and use during ore crushing and transfer, crushers with dust collection systems.	N/A: crushers not used during reporting period.

Condition Number	Description	Activities Undertaken
5.3	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes to air quality. As part of the follow-up program, the Proponent shall:</p> <p>5.3.1 identify, as part of the development of the follow-up program, monitoring locations for air contaminants within areas used by Indigenous groups for traditional purposes or within areas representative of air quality in areas used by Indigenous groups for traditional purposes;</p> <p>5.3.2 monitor, during construction, operation and the first five years of decommissioning, total suspended particulates, particulate matter (PM10), fine particulate matter (PM2.5) and nitrogen dioxide at the monitoring locations identified pursuant to condition 5.3.1, using as benchmarks the standards and criteria set out in the Canadian Council of Ministers of the Environment's Canadian Ambient Air Quality Standards and Ontario's Ambient Air Quality Criteria. The Proponent shall monitor total suspended particulates, fine particulate matter (PM2.5) and nitrogen dioxide at least monthly and shall monitor particulate matter (PM10) in real-time;</p> <p>5.3.3 monitor, at least annually during construction and for the first two years of operation, airborne benzene and benzo(a)pyrene at the monitoring locations identified pursuant to condition 5.3.1. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first two years of operation and at what frequency this additional monitoring shall occur; and</p> <p>5.3.4 monitor, during construction and for the first two years of operation, silt content on roads within the project development area. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first two years of operation and at what frequency this additional monitoring shall occur.</p>	<p>The AQMMP (GGM 2020c) was developed to validate the EIS and effectiveness of the mitigation measures as it pertains to the potential for adverse environmental effects on the health of Indigenous Peoples of changes to air quality (EIS Condition 5.3.1, 5.3.2, 5.3.3 and 5.3.4).</p>

Condition Number	Description	Activities Undertaken
5.4	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in water and fish. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>5.4.1 monitor, at least quarterly during construction and the first five years of operation, mercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.04 micrograms per litre. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first five years of operation and at what frequency this additional monitoring shall occur; and</p> <p>5.4.2 monitor, at least quarterly during construction and the first five years of operation, methylmercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.0001 micrograms per litre. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first five years of operation and at what frequency this additional monitoring shall occur.</p>	<p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan was completed in February 2021 and addresses s federal Conditions of Approval 5.4. The information presented in Fish and Fish Habitat Federal EIS Follow-Up Monitoring Reports will be carried forward, where necessary, and assessed in the subsequent Health of Indigenous Peoples Follow-up Report (GGM 2020d).</p>

Condition Number	Description	Activities Undertaken
5.5	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in country foods caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of vegetation, fish and wildlife that shall be monitored and shall determine, in consultation with Indigenous groups and relevant authorities, the sampling and analytical methodology that shall be applied for the monitoring of each species, including how samples will be collected. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>5.5.1 monitor, at least every two years, during the first six years of operation, mercury, methylmercury and arsenic concentrations in walleye {Sander vitreus} tissue according to the methodology determined pursuant to condition 5.5. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first six years of operation and at what frequency this additional monitoring shall occur; and</p> <p>5.5.2 monitor, at least every two years, during the first six years of operation, concentrations of metals, including mercury and arsenic, in small mammals according to the methodology determined pursuant to condition 5.5. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first six years of operation and at what frequency this additional monitoring shall occur.</p>	N/A: Monitoring required by Condition 5.5 is required during the Mine operation phase and operation did not commence during the reporting period.
5.6	Participate in any regional initiative that is established for the analysis of contaminants in moose (Alces alces) tissue in the region, should there be any such initiative(s) during construction or operation of the Designated Project.	N/A: There was no initiative that established for the analysis of contaminants in moose tissue in the region during the reporting period.

Condition Number	Description	Activities Undertaken
5.7	Develop, in consultation with Indigenous groups and relevant authorities, a Community Relations Management Plan to share the results of the follow-up programs referred to in conditions 5.3, 5.4 and 5.5 with Indigenous groups and relevant authorities, including any potential health risks, in plain language, and the modified or additional mitigation measures developed and implemented by the Proponent pursuant to condition 2.7. The Proponent shall develop the Community Relations Management Plan prior to construction and shall implement and maintain it up to date during the periods of time that the follow-up programs referred to in conditions 5.3, 5.4 and 5.5 are implemented.	Draft Communications Plan developed and sent to Indigenous communities and MECP for review/comment in October 2019. Finalized and submitted to IAAC in September 2020.
6.1	Establish, in consultation with Indigenous groups and prior to undertaking construction activities that will restrict access to the Southwest Arm of Kenogamisis Lake, alternate unrestricted access to the Southwest Arm of Kenogamisis Lake and shall maintain that alternate access during all phases of the Designated Project, to the extent that such access is safe.	The East Access Road, was identified on the site plan and consulted on with Indigenous communities in 2019. The alternate Road was constructed during the reporting period (June – August 2022) and is currently open to public access.
6.2	Maintain unrestricted access along Goldfield Road during all phases of the Designated Project and to the Goldfield Creek diversion channel starting when the Proponent has completed the progressive reclamation referred to in condition 4.2 and until the end of decommissioning, to the extent that such access is safe.	Access to Goldfield Road was unrestricted during the reporting period. Construction of the Goldfield Creek diversion channel did not occur during the reporting period.
6.3	Only conduct blasting activities between 10:00 am and 4:00 pm and shall not conduct blasting on statutory holidays and on days of cultural importance that the Proponent shall identify in consultation with Indigenous groups, unless required for safety reasons or unless the Proponent has advised Indigenous groups pursuant to condition 6.4.2 of any update to the blasting schedule.	Blasting occurred during the reporting period (a single blast during late September 2021). Adherence to requirements of condition 6.3 was maintained.

Condition Number	Description	Activities Undertaken
6.4	<p>Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a Community Relations Management Plan to share information related to Designated Project activities and about the adverse environmental effects of the Designated Project with Indigenous groups. The Proponent shall implement and maintain the Community Relations Management Plan up-to date during all phases of the Designated Project. The Community Relations Management Plan shall include procedures, including timing and methods, for sharing information on the following:</p> <p>6.4.1 the location and timing of Designated Project activities that may permanently or temporarily affect navigation within the project development area and in the Southwest Arm of Kenogamisis lake, including the locations of the effluent discharge location and the freshwater intakes in Kenogamisis lake; and</p> <p>6.4.2 the dates and times of all regularly-scheduled blasting events to be conducted by the Proponent and how the Proponent will notify Indigenous groups of any update to the blasting schedule on a daily basis if the Proponent must conduct blasting activities before 10:00 am or after 4:00 pm or on a statutory holiday or day of cultural importance for Indigenous groups.</p>	<p>Draft Communications Plan developed and sent to Indigenous communities and MECP for review/comment in October 2019. Finalized and submitted to IAAC in September 2020.</p>
6.5	<p>Develop, as part of the Community Relations Management Plan referred to in condition in 6.4 and in consultation with Indigenous groups, procedures for Indigenous groups to communicate to the Proponent their concerns about adverse environmental effects caused by the Designated Project related to access to and use of lands for traditional purposes, including navigation and consumption of country foods, and procedures for the Proponent to document and respond in a timely manner to the concerns received and demonstrate how issues have been addressed, including through the implementation of additional or modified mitigation measures. The Proponent shall implement these procedures during all phases of the Designated Project.</p>	<p>Draft Communications Plan developed and sent to Indigenous communities and MECP for review/comment in October 2019. Finalized and submitted to IAAC in September 2020.</p>

Condition Number	Description	Activities Undertaken
6.6	<p>As part of the progressive reclamation referred to in condition 4.2, GGM shall:</p> <p>6.6.1 identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, species of importance to Indigenous Peoples (including medicinal, edible and ceremonial plants) to use for revegetation as part of the progressive reclamation to create harvesting opportunities; and</p> <p>6.6.2 develop, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, measures to manage the spread of invasive species. The Proponent shall submit these measures to the Agency before implementing them.</p>	<p>Draft Revegetation Plan and draft Invasive Species Management Plans were developed and sent to Indigenous communities and the MNRF for review/comment in October 2019 and were finalized and sent to IAAC in December 2020. The Invasive Plants Management Plan is presented in Appendix B of the BMMP.</p>
6.7	<p>Develop, prior to construction and in consultation with Indigenous groups, a protocol for receiving complaints related to the exposure to noise from the Designated Project. The Proponent shall submit the protocol to the Agency prior to construction and shall implement it during all phases of the Designated Project. The Proponent shall respond to any noise complaint(s) within 48 hours of the complaint being received and shall implement corrective actions, if required to reduce exposure to noise, in a timely manner.</p>	<p>Draft Complaint Protocol developed and sent to Indigenous communities for review/comment in October 2019. Finalized and submitted to IAAC in September 2020.</p>
6.8	<p>Provide access to the project development area to Indigenous groups prior to construction, to the extent that such access is safe, to harvest traditional plants. In doing so, the Proponent shall:</p> <p>6.8.1 notify Indigenous groups at least 120 days in advance of vegetation clearing to allow Indigenous groups to harvest traditional plants within the project development area; and</p> <p>6.8.2 notify Indigenous groups and the Agency if the Proponent must prohibit access to the project development area to harvest traditional plants for safety reasons. The Proponent shall notify Indigenous groups at least 48 hours before access must be prohibited, unless access must be prohibited for emergency purposes.</p>	<p>Opportunity to harvest provided to Indigenous communities on September 5, 2019.</p> <p>No access prohibitions occurred during reporting period.</p>

Condition Number	Description	Activities Undertaken
6.9	Develop, prior to construction and in consultation with Indigenous groups, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes, including access to the Southwest Arm of Kenogamisis Lake referred to in condition 6.1 and access along Goldfield Road and to the Goldfield Creek diversion channel referred to in condition 6.2. The Proponent shall implement the follow-up program during all phases of the Designated Project.	Current Use of Lands and Resources for Traditional Purposes Follow-Up Plan finalized in consultation with Indigenous communities in September 2020.
7.1	Develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a bald eagle (<i>Haliaeetus leucocephalus</i>) protection plan that takes into account Ontario's Management Plan for the Bald Eagle (<i>Haliaeetus leucocephalus</i>) in Ontario and Ontario's Bald Eagle Habitat Management Guidelines. The Proponent shall implement the protection plan during construction and operation. As part of the implementation of the protection plan, the Proponent shall: 7.1.1 conduct, once prior to construction and annually until vegetation clearing is completed within the project development area, surveys of active bald eagle (<i>Haliaeetus leucocephalus</i>) nests within the project development area and within 800 meters of the project development area, and provide the results of the surveys to Indigenous groups, relevant authorities and the Agency no later than 60 days after the end of each survey; and 7.1.2 develop, in consultation with Indigenous groups and relevant authorities, and implement measures to protect active nest(s) found pursuant to the surveys referred to in condition 7.1.1. At a minimum, these measures shall include restrictions on access and on Designated Project activities, including site preparation and vegetation clearing, that the Proponent may undertake from March 1 to August 31 within 400 metres of any active nest. The Proponent shall submit these measures to the Agency prior to implementing them, including the period(s) of time during which these measures will apply.	Draft Bald Eagle Protection Plan was developed and sent to Indigenous communities and the MNRF for review/comment in October 2019 and IAAC in October 2020. The Bald Eagle Protection Plan is presented in Appendix G of the BMMP. A bald eagle aerial survey was completed during the reporting period.
8.1	Close mine shaft openings prior to any drawdown works to reduce the likelihood of little brown myotis (<i>Myotis lucifugus</i>) and northern myotis (<i>Myotis septentrionalis</i>) establishing bat hibernacula in underground workings.	N/A: no drawdown works in mine shafts occurred during reporting period.

Condition Number	Description	Activities Undertaken
9.1	Take all reasonable measures to prevent accidents and malfunctions that may result in adverse environmental effects.	Several management plans have been developed to prevent accidents and malfunctions (ie. Spill Prevention and Contingency Plan, Erosion and Sediment Control Plan, Construction Environmental Management Plan, Site Emergency Response Plan, etc.)
9.2	Prior to construction, consult with Indigenous groups and relevant authorities on the measures to be implemented to prevent accidents and malfunctions.	Emergency Preparedness and Response Plan for Construction finalized in February 2020 (GGM 2020e).
9.3	<p>Prior to construction and in consultation with Indigenous groups and relevant authorities, develop an accident and malfunction response plan in relation to the Designated Project. The accident and malfunction plan shall include:</p> <p>9.3.1 the types of accident and malfunction that may cause adverse environmental effects; and</p> <p>9.3.2 the measures to be implemented in response to each type of accident and malfunction referred to in condition 9.3.1 to mitigate any adverse environmental effect(s) caused by the accident or malfunction.</p>	Emergency Preparedness and Response Plan for Construction finalized in February 2020 (GGM 2020e).
9.4	<p>In the event of an accident or malfunction with the potential to cause adverse environmental effects, the Proponent shall immediately implement the measures appropriate to the accident or malfunction referred to in condition 9.3.2 and shall:</p> <p>9.4.1 notify, as soon as possible, Indigenous groups and relevant authorities of the accident or malfunction, and notify CEAA in writing no later than 24 hours following the accident or malfunction. For the notification to Indigenous groups and the Agency, the Proponent shall specify:</p> <p>9.4.1.1 the date the accident or malfunction occurred;</p> <p>9.4.1.2 a summary description of the accident or malfunction;</p> <p>9.4.1.3 a list of any substances potentially released into the environment as a result of the accident or malfunction.</p> <p>9.4.2 submit a written report to the Agency no later than 30 days after the day on</p>	N/A: no accidents or malfunctions with the potential to cause adverse environmental effects occurred during reporting period.

Condition Number	Description	Activities Undertaken
	<p>which the accident or malfunction occurred. The written report shall include:</p> <p>9.4.2.1 a detailed description of the accident or malfunction and of its adverse environmental effects and any associated potential health risks;</p> <p>9.4.2.2 a description of the measures that were taken by the Proponent to mitigate the adverse environmental effects caused by the accident or malfunction;</p> <p>9.4.2.3 any view(s) from Indigenous groups and advice from relevant authorities received with respect to the accident or malfunction, its adverse environmental effects, the associated potential health risks and the measures taken by the Proponent to mitigate these adverse environmental effects;</p> <p>9.4.2.4 a description of any residual adverse environmental effects and any modified or additional measures required by the Proponent to mitigate residual adverse environmental effects; and</p> <p>9.4.2.5 details concerning the implementation of the accident or malfunction response plan referred to in condition 9.3.</p> <p>9.4.3 submit a written report to the Agency no later than 90 days after the day on which the accident or malfunction occurred that includes a description of changes made to avoid a subsequent occurrence of the accident or malfunction and of the modified or additional measure(s) implemented by the Proponent to mitigate and monitor residual adverse environmental effects and to carry out any required progressive reclamation, taking into account the information submitted in the written report pursuant to condition 9.4.2. The report shall include all additional views from Indigenous groups and advice from relevant authorities received by the Proponent since the views and advice referred to in condition.</p>	

Condition Number	Description	Activities Undertaken
9.5	<p>The Proponent shall develop a communication plan in consultation with Indigenous groups. The Proponent shall develop the communication plan prior to construction and shall implement and keep it up to date during all phases of the Designated Project. The plan shall include:</p> <p>9.5.1 the types of accident and malfunction requiring the Proponent to notify the respective Indigenous groups;</p> <p>9.5.2 the manner by which Indigenous groups shall be notified by the Proponent of an accident or malfunction and of any opportunities for the Indigenous groups to assist in the response to the accident or malfunction; and</p> <p>9.5.3 the contact information of the representatives of the Proponent that the Indigenous groups may contact and of the representatives of the respective Indigenous groups to which the Proponent provides notification.</p>	Draft Communications Plan developed and sent to Indigenous communities and MECP for review/comment in October 2019. Finalized and submitted to IAAC in September 2020.
10.1	Submit a schedule to CEAA for all conditions set out in the CEAA Decision Statement no later than 60 days prior to the start of construction. This schedule shall detail all activities planned to fulfill each condition set out in the Decision Statement and the commencement and estimated completion month(s) and year(s) for each of these activities.	Submitted to IAAC January 22, 2021
10.2	Submit a schedule to CEAA outlining all activities required to carry out all phases of the Designated Project no later than 60 days prior to the start of construction. The schedule shall indicate the commencement and estimated completion month(s) and year(s) and duration of each of these activities.	Submitted to IAAC January 22, 2021
10.3	Submit to CEAA, in writing, an update to schedules referred to in conditions 10.1 and 10.2 every year no later than December 31, until completion of all activities referred to in each schedule.	Submitted to IAAC January 22, 2021
10.4	Provide revised schedules to CEAA if any change is made to the initial schedules referred to in conditions 10.1 and 10.2 or to any subsequent update(s) referred to in condition 10.3, upon revision of the schedules.	Submitted to IAAC January 22, 2021
10.5	Proponent shall provide Indigenous groups with the schedules referred to in conditions 10.1 and 10.2 and the updates or revisions to the initial schedules pursuant to condition 10.3 and 10.4 at the same time the Proponent provides these documents to CEAA.	GGM provides Indigenous Groups updates to the construction schedule referenced in 10.1 and 10.2 during each regularly scheduled EAS meeting.

Condition Number	Description	Activities Undertaken
11.1	Proponent shall maintain all records required to demonstrate compliance with the conditions set out in the CEAA Decision Statement. The Proponent shall retain the records and make them available to the Agency throughout construction and operation and for 25 years following the end of operation or until the end of decommissioning of the Designated Project, whichever comes first. The Proponent shall provide the aforementioned records to the Agency upon demand within a timeframe specified by the Agency.	Records required to demonstrate compliance with the conditions are maintained in GGM's document control system and can be made available upon request.
11.2	GGM shall retain all records referred to in condition 11.1 at a facility in Canada and shall provide the address of the facility to CEAA. The Proponent shall notify the Agency at least 30 days prior to any change to the physical location of the facility where the records are retained, and shall provide to the Agency the address of the new location.	GGM has maintained records relevant to the December 10, 2018 Decision Statement. In 2019, these records were retained in GGM's electronic document control system and at Greenstone Mine 8000 Highway 11 P.O. Bag 10 Geraldton, ON POT 1M0
11.3	GGM shall notify CEAA of any change to the contact information of the Proponent included in the CEAA Decision Statement.	IAAC was updated on the following GGM contact information: Shane Hayes Environmental Superintendent Mobile: 807-228-0373 Greenstone Mine 8000 Highway 11 P.O. Bag 10 Geraldton, ON POT 1M0

2.2 Compliance with Condition 2.1 General Conditions (Condition 2.9.2)

Condition 2.1 (General Conditions) is:

2.1 The Proponent shall ensure that its actions in meeting the conditions set out in this Decision Statement during all phases of the Designated Project are considered in a careful and precautionary manner, promote sustainable development, are informed by the best information and knowledge available at the time the Proponent takes action, including community and Indigenous traditional knowledge, are based on methods and models that are recognized by standard-setting bodies, are undertaken by qualified individuals, and have applied the best available economically and technically feasible technologies.

GGM has complied with Condition 2.1 by continuing to engage the services of several qualified consultants and engineering firms to implement activities during reporting period. GGM established environmental advisory committees with Indigenous groups and their consultants to review and discuss permit applications, environmental management and monitoring plans, and other topics of interest to the Indigenous groups.

2.3 Influence of Consultation (Condition 2.9.3)

The conditions that require consultation are listed in Table 2 along with how views and information received during consultation have been considered in implementing the conditions.

Table 2: Summary of Influence of Consultation

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>2.14 The Proponent shall consult with Indigenous groups and relevant authorities prior to initiating any changes to the Designated Project that may result in adverse environmental effects, and shall notify the Agency in writing no later than 60 days prior to initiating the change(s).</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>Design optimization report reviewed by environmental advisory committees, however no changes that may result in adverse environmental effects were identified.</p>
<p>3.1 The Proponent shall salvage and relocate fish prior to conducting any Designated Project activity requiring removal of fish habitat in a manner consistent with any authorization issued under the <i>Fisheries Act</i> and its regulations. The Proponent shall salvage and relocate fish in consultation with Indigenous groups and to the satisfaction of Fisheries and Oceans Canada and other relevant authorities.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN • MNRF 	<p>GGM did no fish salvage during the reporting window, however the Licence to Collect Fish for Scientific Purposes has been obtained from MNRF and distributed through the Indigenous Environmental Advisory Sub-Committees.</p>
<p>3.11 The Proponent shall mitigate, in consultation with Indigenous groups and relevant authorities, the adverse environmental effects on water quality, including in the Southwest Arm, Central Basin and Barton Bay of Kenogamisis Lake, Goldfield Creek Tributary, Mosher Lake and the Southwest Arm Tributary, caused by the presence of unexcavated historical tailings.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>GGM regularly consults with Indigenous groups through the EAS and the Indigenous Technicians that sit on the committees. Mitigation measures during the reporting period included water quality monitoring, kd sampling, mercury sampling in the SWAT, erosion and sediment control measures, and commissioning of the TETP.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>3.12 The Proponent shall develop, to the satisfaction of Fisheries and Oceans Canada and Environment and Climate Change Canada and in consultation with Indigenous groups, any offsetting plan(s) related to any residual serious harm to fish associated with the carrying out of the Designated Project. The Proponent shall implement the plan. The Proponent shall submit any approved offsetting plan(s) to the Agency prior to implementation.</p>	<ul style="list-style-type: none"> • AFN • AZA • DFO • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>The Goldfield Creek diversion and, proposed compensatory measures have been discussed as a Project component throughout the Federal EIS and Provincial EA process. Early consultation of the offsetting concept helped shape additional field work carried out in 2016 to further evaluate flows and informed a revised approach with respect to flow management through the Southwest Arm Tributary. Additional consultation helped to inform the detailed design and the final version of the plan with a focus on habitat design features within the Goldfield Creek diversion. The comments and discussion points received from consultation, have been incorporated into the plan.</p>
<p>3.13 The Proponent shall, for any fish habitat offsetting measure(s) proposed in any offsetting plan(s) referred to in condition 3.12 that may cause adverse environmental effects not considered in the environmental assessment, develop and implement, following consultation with Indigenous groups, Fisheries and Oceans Canada and Environment and Climate Change Canada, measures to mitigate those effects. The Proponent shall submit these measures to the Agency before implementing them.</p>	<p>N/A no adverse environmental effects not considered in the environmental assessment were identified.</p>	<p>N/A</p>
<p>3.15 The Proponent shall develop, prior to the start of blasting activities in or near water and in consultation with relevant authorities, a follow-up program to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects of blasting on fish and fish habitat, including aquatic listed species at risk. The Proponent shall implement the follow-up program during blasting activities.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>Draft follow-up program for monitoring of blasting developed as part of the Noise & Vibration Management and Monitoring Plan (NVMMP) and sent to Indigenous communities and the MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made in final version (July 2020) of the NVMMP.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>3.16 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects on fish and fish habitat caused by changes in water quality in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary. The Proponent shall implement the follow-up program during all phases of the Designated Project, including the environmental effects monitoring requirements set out in Schedule 5 of the <i>Metal and Diamond Mining Effluent Regulations</i>.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • MNRF • RSMIN 	<p>Consultation on proposed mitigation measures and methods as they pertain to adverse environmental effects on fish and fish habitat caused by changes in water quality in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary took place prior to the current monitoring period. Comments were incorporated into the Fish and Fish Habitat Federal EIS Follow-up Monitoring Plan, which was finalized on February 16, 2021. The plan was implemented in 2021 as required during the monitoring period.</p>
<p>3.17 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on fish and fish habitat of from changes in groundwater quality caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • MNRF • RSMIN 	<p>Consultation on proposed mitigation measures and methods as they pertain to adverse environmental effects on fish and fish habitat caused by changes in groundwater quality took place prior to the current monitoring period. Comments were incorporated into the Fish and Fish Habitat Federal EIS Follow-up Monitoring Plan, which was finalized on February 16, 2021. The plan was implemented in 2021 as required during the monitoring period.</p>
<p>4.2 The Proponent shall undertake, in consultation with Indigenous groups and relevant authorities, progressive reclamation of the project development area. The Proponent shall identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, plant species native to the area of the Designated Project to use for revegetation as part of the progressive reclamation, including species suitable to create habitat for migratory birds.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • MNRF • MTO • RSMIN 	<p>Through the Closure Plan approval process, the Closure Plan was consulted on through written comments and responses, meetings and community open houses with Indigenous Communities and provincial government agencies. Any required revisions were made in the filed Closure Plan. Draft Revegetation Plan and draft Goldfield Creek Realignment Biodiversity Monitoring Plan were developed and sent to Indigenous communities and MNRF for review/comment in October 2019. Comments received were responded to and discussed in meetings. Revisions based on the consultation are included in the BMMP (GGM 2020b).</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>4.3 The Proponent shall compensate, in consultation with relevant authorities, the loss of barn swallow (<i>Hirundo rustica</i>) nesting sites as a result of the Designated Project, taking into account Ontario's <i>Recovery Strategy for Barn Swallow (Hirundo rustica)</i>. In doing so, the Proponent shall install, prior to construction, and maintain, during three years, artificial barn swallow (<i>Hirundo rustica</i>) nesting structures.</p>	<p>N/A: removal of barn swallow nesting sites or installation of replacement habitat did not occur during the reporting period.</p>	<p>N/A</p>
<p>4.6 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the use by migratory birds of surface water facilities in the project development area.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Wildlife-Water Follow-up Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation are included in Appendix E of the BMMP (GGM 2020b).</p>
<p>4.7 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of all mitigation measures to avoid harm to migratory birds, their eggs and nests, including the mitigation measures used to comply with conditions 4.1 to 4.5.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Migratory Birds Follow-up Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation are included in Appendix J of the BMMP (GGM 2020b).</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>4.7.1 conduct migratory bird surveys annually for the first five years following completion of construction to assess migratory bird use of the project development area. The Proponent shall determine the methodology for the migratory bird surveys in consultation with Indigenous groups and relevant authorities. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the initial surveys, if additional surveys within the project development area are required after the first five years following completion of construction and at what frequency and in which locations these additional surveys shall occur;</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Migratory Birds Follow-up Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation are included in Appendix H of the BMMP (GGM 2020b).</p>
<p>4.7.2 monitor the effectiveness of the progressive reclamation referred to in condition 4.2, including the establishment of native plant species to create habitat for migratory birds, annually during operation and during the first five years of decommissioning and every five years thereafter until the Proponent has determined, in consultation with Indigenous groups and relevant authorities, that the performance indicators have been met;</p>	<p>N/A: not required during construction phase.</p>	<p>N/A</p>
<p>5.1 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, measures to mitigate emissions of dust generated by the Designated Project, including dust from vehicles associated with the Designated Project on roads located within the project development area and dust generated during the transport of historical tailings, that take into account the standards and criteria set out in the Canadian Council of Ministers of the Environment's <i>Canadian Ambient Air Quality Standards</i> and Ontario's <i>Ambient Air Quality Criteria</i>. The Proponent shall submit these measures to the Agency before implementing them. The Proponent shall implement these measures during construction, operation and the first five years of decommissioning.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft AQMMP was sent to Indigenous communities and the MECP for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed during EAS meetings. Revisions based on the consultation are included in the updated AQMMP (GGM 2020c).</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>5.3 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes to air quality.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft AQMMP was sent to Indigenous communities and the MECP for review/comment in October 2019 and ECCC in July 2020. Indigenous Peoples Health Risk Assessment Follow-up Plan sent to Indigenous communities for review/comment in January 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation were made in final version of the AQMMP (GGM 2020c) and the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020d).</p>
<p>5.3.3 monitor, at least annually during construction and for the first two years of operation, airborne benzene and benzo(a)pyrene at the monitoring locations identified pursuant to condition 5.3.1. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first two years of operation and at what frequency this additional monitoring shall occur;</p>		<p>N/A</p>
<p>5.4 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in water and fish.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>A Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan was completed in March 2021, which included a follow-up program to assess the predictions of the EIS and the effectiveness of mitigation measures that pertain to the potential for effects of blasting on fish and fish habitat. A single blast occurred in the 2021 reporting period but was not located near fish and fish habitat.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>5.4.1. monitor, at least quarterly during construction and the first five years of operation, mercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.04 micrograms per litre. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first five years of operation and at what frequency this additional monitoring shall occur; and</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN • MECP 	<p>Baseline water quality data to support this Follow-up plan were collected in 2021 with the Indigenous Technicians and reported to the EAS.</p>
<p>5.4.2 monitor, at least quarterly during construction and the first five years of operation, methylmercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.0001 micrograms per litre. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first five years of operation and at what frequency this additional monitoring shall occur.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN • MECP 	<p>Baseline water quality data to support this Follow-up plan were collected in 2021 with the Indigenous Technicians and reported to the EAS.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>5.5 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in country foods caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of vegetation, fish and wildlife that shall be monitored and shall determine, in consultation with Indigenous groups and relevant authorities, the sampling and analytical methodology that shall be applied for the monitoring of each species, including how samples will be collected. As part of the implementation of the follow-up program, the Proponent shall:</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>Indigenous Peoples Health Risk Assessment Follow-up Plan sent to Indigenous communities for review/comment in January 2020. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation will be made in final versions of the plan.</p>
<p>5.5.1 monitor, at least every two years, during the first six years of operation, mercury, methylmercury and arsenic concentrations in walleye (<i>Sander vitreus</i>) tissue according to the methodology determined pursuant to condition 5.5. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first six years of operation and at what frequency this additional monitoring shall occur; and</p>	<p>N/A: no operation activities occurred in 2021.</p>	<p>N/A</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>5.5.2 monitor, at least every two years, during the first six years of operation, concentrations of metals, including mercury and arsenic, in small mammals according to the methodology determined pursuant to condition 5.5. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first six years of operation and at what frequency this additional monitoring shall occur.</p>	<p>N/A: no operation activities occurred in 2021.</p>	<p>N/A</p>
<p>5.7 The Proponent shall develop, in consultation with Indigenous groups and relevant authorities, a communication plan to share the results of the follow-up programs referred to in conditions 5.3, 5.4 and 5.5 with Indigenous groups and relevant authorities, including any potential health risks, in plain language, and the modified or additional mitigation measures developed and implemented by the Proponent pursuant to condition 2.7. The Proponent shall develop the communication plan prior to construction and shall implement and maintain it up to date during the periods of time that the follow-up programs referred to in conditions 5.3, 5.4 and 5.5 are implemented.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft Communications Plan was sent to Indigenous communities and MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made in final version of the Communications Plan submitted to IAAC in September 2020.</p>
<p>6.1 The Proponent shall establish, in consultation with Indigenous groups and prior to undertaking construction activities that will restrict access to the Southwest Arm of Kenogamisis Lake, alternate unrestricted access to the Southwest Arm of Kenogamisis Lake and shall maintain that alternate access during all phases of the Designated Project, to the extent that such access is safe.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>The East Access Road, was identified on the site plan and consulted on with Indigenous communities in 2019. The alternate Road was constructed during the reporting period (June – August 2021) and is currently open to public access.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>6.4 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a communication plan to share information related to Designated Project activities and about the adverse environmental effects of the Designated Project with Indigenous groups. The Proponent shall implement and maintain the communication plan up-to-date during all phases of the Designated Project.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft Communications Plan was sent to Indigenous communities and MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made in final version of the Communications Plan submitted to IAAC in September 2020.</p>
<p>6.5 The Proponent shall develop, as part of the communication plan referred to in condition in 6.4 and in consultation with Indigenous groups, procedures for Indigenous groups to communicate to the Proponent their concerns about adverse environmental effects caused by the Designated Project related to access to and use of lands for traditional purposes, including navigation and consumption of country foods, and procedures for the Proponent to document and respond in a timely manner to the concerns received and demonstrate how issues have been addressed, including through the implementation of additional or modified mitigation measures. The Proponent shall implement these procedures during all phases of the Designated Project.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft Communications Plan was sent to Indigenous communities and MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made in final version of the Communications Plan submitted to IAAC in September 2020.</p>
<p>6.6.1 identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, species of importance to Indigenous Peoples (including medicinal, edible and ceremonial plants) to use for revegetation as part of the progressive reclamation to create harvesting opportunities; and</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Revegetation Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation will be made in final version of the Revegetation Plan.</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>6.6.2 develop, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, measures to manage the spread of invasive species. The Proponent shall submit these measures to the Agency before implementing them.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Invasive Species Management Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation will be made in final version of the Invasive Species Management Plan.</p>
<p>6.7 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, a protocol for receiving complaints related to the exposure to noise from the Designated Project. The Proponent shall submit the protocol to the Agency prior to construction and shall implement it during all phases of the Designated Project. The Proponent shall respond to any noise complaint(s) within 48 hours of the complaint being received and shall implement corrective actions, if required to reduce exposure to noise, in a timely manner.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft Complaint Protocol was sent to Indigenous communities and the MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made and it was finalized and submitted to IAAC in September 2020.</p>
<p>6.9 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes, including access to the Southwest Arm of Kenogamisis Lake referred to in condition 6.1 and access along Goldfield Road and to the Goldfield Creek diversion channel referred to in condition 6.2. The Proponent shall implement the follow-up program during all phases of the Designated Project.</p>	<p>N/A: follow-up program not developed in 2019.</p>	<p>N/A</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>7.1 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a bald eagle (<i>Haliaeetus leucocephalus</i>) protection plan that takes into account Ontario's <i>Management Plan for the Bald Eagle (Haliaeetus leucocephalus) in Ontario</i> and Ontario's <i>Bald Eagle Habitat Management Guidelines</i>. The Proponent shall implement the protection plan during construction and operation.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Bald Eagle Protection Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation were incorporated into the final version, which is presented in Appendix G of the BMMP (GGM 2020b).</p>
<p>7.1.2 develop, in consultation with Indigenous groups and relevant authorities, and implement measures to protect active nest(s) found pursuant to the surveys referred to in condition 7.1.1. At a minimum, these measures shall include restrictions on access and on Designated Project activities, including site preparation and vegetation clearing, that the Proponent may undertake from March 1 to August 31 within 400 metres of any active nest. The Proponent shall submit these measures to the Agency prior to implementing them, including the period(s) of time during which these measures will apply.</p>	<ul style="list-style-type: none"> • AFN • AZA • ECCC • GFN • LLFN • MNO • MNRF • RSMIN 	<p>A draft Bald Eagle Protection Plan was sent to Indigenous communities and the MNRF for review/comment in October 2019 and ECCC in July 2020. Comments received were responded to and discussed in meetings. Revisions based on the consultation were incorporated into the final version, which is presented in Appendix G of the BMMP (GGM 2020b).</p>
<p>9.2 The Proponent shall, prior to construction, consult with Indigenous groups and relevant authorities on the measures to be implemented to prevent accidents and malfunctions.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>A draft Emergency Preparedness and Response Plan for Construction developed and sent to Indigenous communities for review/comment in October 2019. Comments received were responded to and discussed in meetings. Revisions based on the consultation were made in final version of the Emergency Preparedness and Response Plan (GGM 2020e).</p>

Condition Requiring Consultation	Communities and Agencies Consulted With	How GGM considered Views and Information Received During or as a Result of the Consultation
<p>9.3 The Proponent shall, prior to construction and in consultation with Indigenous groups and relevant authorities, develop an accident and malfunction response plan in relation to the Designated Project.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MNO • RSMIN 	<p>A draft Emergency Preparedness and Response Plan for Construction developed and sent to Indigenous communities for review/comment in October 2019. Comments received were responded to and discussed in meetings. Revisions based on the consultation were be made in final version of the Emergency Preparedness and Response Plan (GGM 2020e).</p>
<p>9.5 The Proponent shall develop a communication plan in consultation with Indigenous groups. The Proponent shall develop the communication plan prior to construction and shall implement and keep it up to date during all phases of the Designated Project.</p>	<ul style="list-style-type: none"> • AFN • AZA • GFN • LLFN • MECP • MNO • RSMIN 	<p>A draft Communications Plan was sent to Indigenous communities and MECP for review/comment in October 2019. Comments received were responded to and discussed in meetings. Any required revisions based on the consultation were made in the final version of the Communications Plan submitted to IAAC in September 2020.</p>

2.4 Follow-up Programs (Condition 2.9.4)

Condition 2.9.4 states that the annual report must include the information referred to in Conditions 2.4 and 2.5 for each follow-up program. Condition 2.4 and 2.5 are:

2.4 The Proponent shall, where a follow-up program is a requirement of a condition set out in this Decision Statement, determine, as part of the development of each follow-up program and in consultation with the party or parties being consulted during the development, the following information:

2.4.1 the methodology, location, frequency, timing and duration of monitoring associated with the follow-up program;

2.4.2 the scope, content and frequency of reporting of the results of the follow-up program;

2.4.3 the levels of environmental change relative to baseline conditions that would require the Proponent to implement modified or additional mitigation measure(s), including instances where the Proponent may require Designated Project activities to be stopped; and

2.4.4 the technically and economically feasible mitigation measures to be implemented by the Proponent if monitoring conducted as part of the follow-up program shows that the levels of environmental change referred to in condition 2.4.3 have been reached or exceeded.

2.5 The Proponent shall maintain the information referred to in condition 2.4 during the implementation of each follow-up program in consultation with the party or parties being consulted during the development of each follow-up program.

Table 3 presents a list of the required follow-up programs and references how GGM has included the information required by Conditions 2.4 and 2.5.

Table 3: Follow-up Program Requirements

Condition Requiring a Follow-up Program	Reference to Information Required as Per Condition 2.4 and 2.5
<p>3.15 The Proponent shall develop, prior to the start of blasting activities in or near water and in consultation with relevant authorities, a follow-up program to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects of blasting on fish and fish habitat, including aquatic listed species at risk. The Proponent shall implement the follow-up program during blasting activities.</p>	<p>Follow-up program for monitoring of blasting was developed as part of NVMMP and was finalized in July 2020. The NVMMP includes the methodology, location, frequency, timing, and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required; and the mitigation measures to be implemented as part of adaptive management.</p> <p>The NVMMP was implemented in September 2021 when blasting commenced.</p>

Condition Requiring a Follow-up Program	Reference to Information Required as Per Condition 2.4 and 2.5
<p>3.16 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects on fish and fish habitat caused by changes in water quality in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary. The Proponent shall implement the follow-up program during all phases of the Designated Project, including the environmental effects monitoring requirements set out in Schedule 5 of the <i>Metal and Diamond Mining Effluent Regulations</i>.</p>	<p>Fish and Fish Habitat</p> <p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021a) includes the methodology, location, frequency, timing, and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required; and the mitigation measures to be implemented as adaptive management.</p> <p>This Plan includes a water quantity and quality monitoring components. The first Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report was completed in December 2021. The sampling requirements identified in the Federal Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan differ from the requirements of the Environmental Effects Monitoring (EEM) requirements set out in Schedule 5 of the <i>Metal and Diamond Mining Effluent Regulations (MDMER)</i>. Both monitoring programs will be implemented, as required.</p>
<p>3.17 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on fish and fish habitat of from changes in groundwater quality caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project</p>	<p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021a) includes the methodology, location, frequency, timing and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required; and the mitigation measures to be implemented as adaptive management.</p> <p>The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan includes a groundwater quantity and quality monitoring component. The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan was implemented in March 2021.</p>
<p>4.6 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the use by migratory birds of surface water facilities in the project development area.</p>	<p>Regarding the use by migratory birds of surface water facilities in the project development area, Appendix E of the BMMP (GGM, 2020) includes the methodology, location, frequency, timing and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required; and the mitigation measures to be implemented as adaptive management.</p>

Condition Requiring a Follow-up Program	Reference to Information Required as Per Condition 2.4 and 2.5
<p>4.7 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of all mitigation measures to avoid harm to migratory birds, their eggs and nests, including the mitigation measures used to comply with conditions 4.1 to 4.5. As part of the development of the follow-up program, the Proponent shall identify performance indicators that shall be used by the Proponent to evaluate the effectiveness of the progressive reclamation referred to in condition 4.2. The Proponent shall implement the follow-up program during all phases of the Designated Project.</p>	<p>Measures to avoid harm to migratory birds, their eggs and nests are included in Appendix J of the BMMP (GGM 2020b), which includes the methodology, location, frequency, timing and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required, and the mitigation measures to be implemented as adaptive management.</p> <p>Implementation of the BMMP, with respect to Condition 4.7, commenced in spring 2021 in association with tree clearing and site preparation</p>
<p>5.3 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes to air quality.</p>	<p>The AQMMP (GGM 2020c) includes the methodology, location, frequency, timing and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program, when adaptive management is required, and the mitigation measures to be implemented as adaptive management. The Indigenous Peoples Health Risk Assessment Follow-up Plan explains how monitoring results will be compared to predictions in the EIS.</p>
<p>5.4 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in water and fish.</p>	<p>The Indigenous Peoples Health Risk Assessment and Follow-up Plan (November 16, 2021) explains how monitoring results will be compared to predictions in the EA and includes the methodology, location, frequency, timing, and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program, when adaptive management is required, and the mitigation measures to be implemented as adaptive management.</p>

Condition Requiring a Follow-up Program	Reference to Information Required as Per Condition 2.4 and 2.5
<p>5.5 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in country foods caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of vegetation, fish and wildlife that shall be monitored and shall determine, in consultation with Indigenous groups and relevant authorities, the sampling and analytical methodology that shall be applied for the monitoring of each species, including how samples will be collected.</p>	<p>The Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020d) includes the methodology, location, frequency, timing, and duration of monitoring; the scope, content and frequency of reporting of the results of the follow-up program; when adaptive management is required; and the mitigation measures to be implemented as adaptive management.</p>
<p>6.9 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes, including access to the Southwest Arm of Kenogamisis Lake referred to in condition 6.1 and access along Goldfield Road and to the Goldfield Creek diversion channel referred to in condition 6.2. The Proponent shall implement the follow-up program during all phases of the Designated Project.</p>	<p>Current Use of Lands and Resources for Traditional Purposes Follow-up Plan developed (August 18,2020). Current Use of Lands and Resources for Traditional Purposes Follow-up Plan includes the methodology and location of monitoring and the scope, content and frequency of reporting of the results of the follow-up program.</p>

2.5 Results of Follow-up Programs (Condition 2.9.5)

GGM commenced construction on March 1, 2021. The follow-up programs that commenced during the reporting period include:

- Fish and Fish Habitat Follow-up Plan (federal conditions 3.14, 3.15, 3.16, 3.17)
- Biodiversity Management and Monitoring Plan (federal conditions 4.6 and 4.7)
- Indigenous Peoples Health Risk Assessment Follow-up Plan (Federal Condition 5.3, 5.4, 5.5)
- Current Use of Lands and Resources for Traditional Purposes Follow-up Plan (federal condition 6.9)
- AQMMP (federal condition 5.3).

2.5.1 Fish and Fish Habitat Follow-up Plan Results Summary

During the reporting period (October 1, 2020, through September 30, 2021), few activities occurred with the potential to affect fish and fish habitat in an appreciable way. This is because GGM did not excavate or move soil during the early stages of construction until the TETP began operating September 15, 2021, just 15 days prior to the end of the reporting period. Activities with the potential to affect fish habitat were limited because work around water was generally avoided, except for the installation of water intake and effluent discharge pipelines and the installation of culverts in a few small first order watercourses. These activities were completed following appropriate mitigation measures, including timing windows for the protection of fish. Dewatering of historical underground workings had not commenced, and construction dewatering was limited to shallow excavations so potential water table draw down effects were also not anticipated. Blasting was limited to a single blast event, that did not occur near fish habitat.

A Fish and Fish Habitat Follow-up Monitoring Plan (GGM 2021a) was prepared to address seven specific federal Conditions of Approval related to monitoring potential effects of the Project on fish and fish habitat (Conditions 3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1). The results of the 2021 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report are summarized below.

Condition 3.14 – Erosion and Sediment Control

As per the requirements of federal Condition 3.14, GGM has developed and implemented measures to control erosion and sedimentation in the Project Development Area (PDA) (GGM 2020a). Minimal work in and around fish habitat occurred during the 2021 reporting period because GGM was restricted from excavating and transporting soil until the TETP plant was commissioned on September 15, 2021, just 15 days prior to the end of the 2021 reporting period. Works completed around water during the 2021 reporting period included installation of the freshwater intake and TETP effluent discharge pipelines in Kenogamisis Lake. Soil erosion was reduced and managed at these locations primarily by locating this Project infrastructure in areas with an existing road base (i.e., coarse, stable soils) and by maintaining rooted vegetation along the lake shore. Pipelines were not buried in the nearshore area but laid on the ground surface. Silt fencing was also installed between disturbed areas and the lake.

Erosion and sediment controls were regularly inspected to verify the effectiveness of mitigation measures. Management practices were implemented to protect the environment, and to determine whether new management strategies were required. The following activities were undertaken as part of the regular erosion and sediment control monitoring:

- Work sites were inspected and monitored on an on-going basis for compliance with the Erosion and Sediment Control Plan.
- Earthworks were inspected daily to detect evidence of erosion and sedimentation and corrective measures were taken as necessary.
- Where required, work activities were ceased to address potential erosion and sediment control issues.
- Silt fence barriers were inspected daily and immediately following rainfall events.

- Silt fence was immediately repaired or replaced if it was not functioning as intended.
- Stand-by material of prefabricated silt fence barrier was maintained on the construction site and was available for rapid deployment.
- Erosion control structures were reinforced when significant rainfall events were forecasted.

Condition 3.16 – Surface Water Quality

The 2021 reporting period occurred during continued baseline monitoring conditions. As such, potential project related effects on fish and fish habitat because of changes in water quality were not identified and changes to the existing monthly water quality monitoring stations/locations are not recommended. The existing monitoring program (stations, locations, frequency) will be continued for the 2022 reporting year. Water quality trigger thresholds identified in the 2021 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report should be updated to account for the full range of background data and be consistent with other monitoring programs, namely the Multimedia Monitoring and Management Plan requirements (GGM 2021c).

Condition 3.17 - Groundwater

Project activities with reasonable potential to influence the quality and quantity of groundwater did not occur during the current monitoring period. Additional baseline data were therefore collected between October 1, 2019, and September 30, 2020. Baseline data collected during and prior to the reporting period will be used to update the water level and water quality trigger thresholds presented in the Federal Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021a). The existing groundwater quantity monitoring program, with the above recommendations, will be continued for the 2022 reporting year.

Condition 3.2 and 3.15 - Use of Explosives in or Near-Water

A single blast event occurred during the 2021 reporting period, at 2:05 pm on September 29, 2021. The blast charge was relatively small and occurred at a rock outcrop approximately 200 m east of the existing, historical head frame near the intersection of Highway 11 and Highway 584 (approximate UTM coordinates: 16U 0504064E 5503091N). This blast did not occur near fish habitat. Based on the charge size used, a setback distance of 47 m was calculated to meet the project overpressure threshold of 50 KPa for fish habitat as identified in the NVMMP. The closest fish habitat was approximately 470 m away from the blasting location (WC-E). Therefore, overpressure from the blasting was expected to be well under the applicable overpressure threshold in the fish habitat that was nearest to the blast. The existing blast monitoring requirements identified in the Federal Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan will continue throughout the 2022 reporting year.

Condition 5.4 (water) - Concentration of Mercury and Methylmercury in Water

The realignment of Goldfield Creek is planned to facilitate siting of the TMF and to offset for potential effects on fish and fish habitat. Goldfield Creek will be diverted into the existing SWAT, which will increase flow in the SWAT and result in an increase of the permanently inundated area by approximately 15 ha. The management and monitoring requirements of Condition 5.4 deal specifically with potential effects related to changes in mercury and methylmercury concentrations in the realigned section of Goldfield Creek. Water quality data collected during the current reporting period are considered baseline, since the Goldfield Creek realignment has not yet occurred. The existing plan for monitoring mercury and methylmercury concentrations in the SWAT will be continued for the 2022 reporting year. Consideration should be given to harmonizing provincial and federal monitoring requirements related to monitoring mercury and methylmercury in the SWAT.

Condition 5.4 (fish) - Fish Tissue Monitoring in the SWAT

The realignment of Goldfield Creek is planned to facilitate siting of the TMF and to offset for potential effects on fish and fish habitat. Goldfield Creek will be diverted into the existing SWAT, which will increase flow in the SWAT and result in an increase of the permanently inundated area by approximately 15 ha. The management and monitoring requirements of Condition 5.4 deal specifically with potential effects related to changes in mercury and methylmercury concentrations in the realigned section of Goldfield Creek. Fish tissue data collected during the current reporting period are considered baseline, since the Goldfield Creek realignment has not yet occurred. There are no recommended changes to the existing plan for monitoring mercury and methylmercury in fish tissue in the SWAT.

Condition 5.5.1 - Fish Tissue Monitoring in Kenogamisis Lake

The management and monitoring requirements of Condition 5.5.1 deal specifically with potential effects related to changes in mercury and methylmercury in Walleye from Kenogamisis Lake. No activities related to monitoring fish tissue in Kenogamisis Lake occurred in the 2021 reporting period, nor were monitoring activities required. The first phase of monitoring is required after there has been a period of potential exposure to mine effluent or potentially changing water quality conditions in Kenogamisis Lake. Monitoring is required within 24 months from when the mine first began discharging effluent via the TETP, which occurred on September 15, 2021. The monitoring cycle is scheduled for every two years for the first six years of operation, after which time the need for additional monitoring will be evaluated.

Since fish tissue monitoring in Kenogamisis Lake was not required during the 2021 reporting period, modifications to the Plan related to sampling fish tissue in Kenogamisis Lake are not recommended. GMM will continue to implement the Kenogamisis Lake fish tissue monitoring program as scheduled.

2.5.2 Environmental Impact Statement Conditions of Approval 4 and 7 (Migratory Birds and Bald Eagle) Management and Monitoring Results Summary

Three specific Conditions of Approval related to monitoring potential effects of the Project on biodiversity are addressed including:

- Condition 4.1, avoidance of incidental take of migratory birds through nest sweeps of areas to be cleared during the breeding season.
- Condition 4.3, barn swallow habitat compensation.
- Condition 7.1, (including subsections 7.1.1, and 7.1.2), monitoring of bald eagle nests within 800 m of the PDA and implementation of a mitigation plan to avoid disturbance of bald eagle nests from Project activities during the breeding season.

Management plans for these conditions have been developed as part of the BMMP (GGM 2020b) and a report was submitted to IAAC under separate cover to address conditions 4.1, 4.3 and 7.1, collectively. That report confirms compliance and also the performance and/or effectiveness of the conditions to maintain the function of the valued ecosystem components (VECs).

Condition 4.1

A total of 251.6 ha of forested and naturally vegetated areas were swept for bird nests between April 21 and May 25, 2021. No vegetation clearing occurred between during the remainder of the migratory bird nesting season (i.e., between May 31 and August 31).

Two active nests were identified during the nest sweeps. In both cases, the species of bird that constructed the nest could not be identified due to height of nests in the trees. Each tree containing a nest was flagged with a 30 m buffer and locations communicated to GGM and clearing operators via UTM coordinates and maps.

Condition 4.3

Barn swallows (*Hirundo rustica*), an endangered species (ESA 2007, SARO 2011), occur in two buildings requiring removal by GGM in the Ministry of Transportation of Ontario (MTO) Patrol Yard. Removal is expected to occur in 2022 and will occur in accordance with the BMMP (GGM 2020b).

Condition 7.1.1 and 7.1.2

Four eagle nests were identified in 2019. Of the four eagle nests identified in 2019, three eagle nests (487, E-535, WP-008) remain, all of which were confirmed active in 2019. Eagle nest 487 is 650 m from the proposed TMF and nest E-535 is between 217 m and 352 m of various project components, including the proposed TMF. Nest WP-008 is greater than 800 m from any project component. Three nests identified in 2019 are no longer present while new nests identified to the east of the PDA (GGM11 and GGM12) are greater than 800 m from any project component. In summary, two nests (487 and E-535) observed in 2021 will require implementation of mitigation measures due to their respective proximities to site development.

Mitigation measures during construction are as follows:

- No vegetation removal or Project activities will occur within 200 m (i.e., the primary and secondary zones, as defined by MNR, 1987) of an active nest.
- The limits of the vegetation removal and construction area within 800 m of an active nest will be staked in the field. Activities will occur inside the marked limit of work.
- A 120 m vegetated buffer zone will be retained along the shoreline of the lake; and vegetation that is present between each nest and the lakeshore will be retained.
- Large and mature trees will be retained between each nest and the closest Project components to maintain a visibility barrier to Project activities to the extent possible
- Vegetation clearing activities and site preparation activities between 400 m and 800 m of active nests will not occur from March 1 to June 30 (the incubation and nestling period for bald eagle [MNR 1987; MNR 2010]).
- If vegetation clearing or site preparation activities are required within 200- 400 m of the nest, they should occur outside of the incubation, nestling, and fledging period (March 1 to August 31 [MNR 2010]).

These mitigation measures are specific to construction activities which are currently being undertaken. Operations mitigation for raptor nests will be implemented when Operations activity commences.

At the time of this report, the Federal conditions related to VECs have been implemented and demonstrated to be effective in meeting their intended objective.

2.5.3 Indigenous Peoples Health Risk Assessment Follow-up Plan Results Summary

The annual Indigenous Peoples Health Risk Assessment Follow-up Report was completed to satisfy the reporting requirements for the reporting period of October 1, 2020, to September 30, 2021 (i.e., the 2021 monitoring year). The report deals specifically with federal Conditions of Approval 5.3, 5.4 and 5.5 as outlined in the Decision Statement issued under Section 54 of the Canadian Environmental Assessment Act, 2012. Required sampling methods are provided in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020d).

GGM initiated installation of three continuous/non-continuous ambient monitoring stations in April, 2021. However, due to supply issues associated with the COVID-19 pandemic, installation of the monitoring equipment and equipment enclosures was delayed until November/December 2021.

Silt content sampling on roads did not occur in this reporting period but is planned is for specific haul roads during the summertime, when road construction is complete and when there is traffic on the roads.

The realignment of Goldfield Creek realignment has not yet occurred, and therefore a pre-post comparison of water quality and fish tissue data is not yet required. However, additional baseline data were collected in 2021 to build on the existing set of baseline water quality and fish tissue data, which will better characterize baseline conditions.

No activities related to monitoring fish tissue in Kenogamisis Lake occurred in the 2021 reporting period, nor were monitoring activities required by the Plan. The monitoring cycle is scheduled for every two years for the first six years of operation, after which time the need for additional monitoring will be evaluated.

Small mammal tissue and browse vegetation sample collection is not required during construction and will commence during the site operations phase, as outlined in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a).

Data collected in this reporting period is considered baseline. Baseline data and post-realignment data will be compared to HHRA predictions in future iterations of the Indigenous Peoples Health Risk Assessment Follow-up Report.

2.5.4 Current Use of Lands and Resources for Traditional Purposes Follow-up Plan Results Summary

As specified in Condition 6.1 of the federal Decision Statement:

“The Proponent shall establish, in consultation with Indigenous groups and prior to undertaking construction activities that will restrict access to the Southwest Arm of Kenogamisis Lake, alternate unrestricted access to the Southwest Arm of Kenogamisis Lake and shall maintain that alternate access during all phases of the Designated Project, to the extent that such access is safe”.

In follow up to a commitment made in the EIS/EA, GGM has included a public access road from Highway 11 along the east side of the PDA to maintain access to the Southwest Arm of Kenogamisis Lake. This EA commitment outcome was documented in the Outcome of Detailed Engineering Design Optimization Report (April 30, 2019). The Optimization Report was circulated to Indigenous groups and no concerns were identified.

As specified in Condition 6.2 of the federal Decision Statement:

“The Proponent shall maintain unrestricted access along Goldfield Road during all phases of the Designated Project and to the Goldfield Creek diversion channel starting when the Proponent has completed progressive reclamation referred to in condition 4.2 and until the end of decommissioning, to the extent that such access is safe”.

Goldfield Road is located outside of the PDA and no effects on Goldfield Road access have occurred as a result of the Project.

For the Goldfield Creek diversion channel, the main access point of Lahtis Road will be closed during construction and operation due to safety reasons (EIS/EA, Chapter 16). Lahtis Road was not closed during the reporting period. Signage was posted by GGM around the perimeter of the PDA, including the shoreline of Kenogamisis Lake, to alert local land and resource users of the presence of the Project. At Closure, Lahtis Road is planned to be re-opened to public traffic up to the point of the Goldfield Creek diversion (Closure Plan, Section 9.7 and 11.1). GGM will work with the Indigenous groups via their respective EAS’Cs to determine more precisely when Lahtis Road will be re-opened. During construction and operations, GGM will facilitate site tours for representatives if the Indigenous groups to access the Goldfield Creek diversion channel to observe its establishment and progress.

2.6 Adaptive Management (Condition 2.9.6)

Implementation of the follow-up programs will remain generally unchanged in the upcoming monitoring year, with exception of proposed changes to monitoring of the hydraulic gradient and drive point piezometers as described below.

2.6.1 Groundwater Sampling - Hydraulic Gradient

The Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan had a placeholder for the timing of a groundwater trigger threshold (Table 2.8 of GGM 2021a). The reversal of the horizontal hydraulic gradient between the historical Hardrock and MacLeod tailings and Kenogamisis Lake as a result of open pit dewatering was identified as a trigger threshold monitoring location for groundwater quantity. The frequency of measurement and comparison to trigger threshold was to be determined, as transient groundwater flow modelling needed to be completed to predict the timing of the reversal of the horizontal hydraulic gradient. Transient groundwater flow modelling was completed and the reversal in the horizontal hydraulic gradient between the historical MacLeod and Hardrock tailings and Kenogamisis Lake was predicted to occur at the end of year 4 of open pit development. Therefore, the reversal of the horizontal hydraulic gradient should be evaluated and compared to the trigger threshold beginning in year 5 of open pit development. If the reversal had not occurred by year 5 of open pit development, then the groundwater quantity trigger response plan presented in the Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan will be implemented. As presented in the Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan, the horizontal hydraulic gradient will be interpreted based on water level measurements at monitoring wells completed within the historical MacLeod and Hardrock tailings and surrounding area that will be monitored as per the groundwater monitoring program.

2.6.2 Groundwater Sampling - Additional Drive-Point Piezometer

To harmonize federal and provincial compliance monitoring plans, it is recommended that drive-point piezometer DP-C be added to the groundwater quality monitoring program, to monitor shallow groundwater quality within Goldfield Creek for potential effects of seepage from the TMF on groundwater quality.

3 References

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