

Potential conditions under the *Canadian Environmental Assessment Act, 2012*

The Canadian Environmental Assessment Agency is contemplating the following potential conditions in relation to the Goliath Gold Project (the Designated Project) located in Ontario for recommendation to the Minister of Environment and Climate Change (the Minister) for inclusion in a Decision Statement issued under the *Canadian Environmental Assessment Act, 2012*. If the Minister decides that the carrying out of the Designated Project is unlikely to cause significant adverse environmental effects as defined under subsections 5(1) and 5(2), or if the Minister decides that the Designated Project is likely to cause significant adverse environmental effects and the Governor in Council decides such effects are justified in the circumstances, the Designated Project would be allowed to proceed, and any conditions established by the Minister under the *Canadian Environmental Assessment Act, 2012* would become legally binding.

1 Definitions

- 1.1 *Abandonment* means the phase of the Designated Project during which the open pit is filled with water and continues until the Proponent completes reclamation of the site of the Designated Project and the open-pit lake is connected with Blackwater Creek.
- 1.2 *Adaptive management* means a planned and systematic process for continuously improving environmental management practices by learning about their outcomes as described in the Canadian Environmental Assessment Agency's *Operational Policy Statement: Adaptive Management Measures under the Canadian Environmental Assessment Act*.
- 1.3 *Agency* means the Canadian Environmental Assessment Agency.
- 1.4 *Baseline* means the environmental conditions prior to initiating construction of the Designated Project as described in the environmental impact statement.
- 1.5 *Construction* means the phase of the Designated Project during which the Proponent undertakes the site preparation, building or installation of any components of the Designated Project, including periods during which these activities may temporarily cease.
- 1.6 *Contact water* means water which has come into contact with any mine site components.
- 1.7 *Days* means calendar days.
- 1.8 *Decommissioning* means the phase of the Designated Project during which the Proponent permanently ceases commercial production and commences the removal from service of any components of the Designated Project, and that continues until the Proponent completes the removal from service of any of these components of the Designated Project.
- 1.9 *Deleterious substance* means "deleterious substance" as defined in subsection 34(1) of the *Fisheries Act*.

- 1.10 *Designated Project* means the Goliath Gold Project as described in section 2 of the environmental assessment report prepared by the Canadian Environmental Assessment Agency (Canadian Environmental Assessment Registry Reference Number 80019).
- 1.11 *Designated Project area* means the geographic area occupied by the Designated Project.
- 1.12 *Effluent* means “effluent” as defined in subsection 1(1) of the *Metal and Diamond Mining Effluent Regulations*.
- 1.13 *Environment and Climate Change Canada* means the Department of the Environment as established under subsection 2(1) of the *Department of the Environment Act*.
- 1.14 *Environmental assessment* means “environmental assessment” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.15 *Environmental effects* means “environmental effects” as described in section 5 of the *Canadian Environmental Assessment Act, 2012*.
- 1.16 *Environmental Impact Statement* means the April 2018 document entitled *Revised Environmental Impact Statement* (Canadian Environmental Assessment Registry Reference Number 80019, Document Number 28).
- 1.17 *Fish* means “fish” as defined in subsection 2(1) of the *Fisheries Act*.
- 1.18 *Fish habitat* means “fish habitat” as defined in subsection 2(1) of the *Fisheries Act*.
- 1.19 *Fisheries and Oceans Canada* means the Department of Fisheries and Oceans as established under subsection 2(1) of the *Department of Fisheries and Oceans Act*.
- 1.20 *Follow-up program* means “follow-up program” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.21 *Heritage value* means the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations.
- 1.22 *Indigenous groups* means the following Aboriginal Peoples: Eagle Lake First Nation, Asubpeeschoseewagong Netum Anishinabek (Grassy Narrows First Nation), Métis Nation of Ontario, Naotkamegwanning First Nation, Wabauskang First Nation, and Wabigoon Lake Ojibway Nation.
- 1.23 *Migratory bird* means “migratory bird” as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*.
- 1.24 *Mitigation measures* means “mitigation measures” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.25 *Offsetting plan* means “offsetting plan” as defined in section 1 of the Applications for Authorization under Paragraph 35(2)(b) of the *Fisheries Act Regulations* and “compensation plan” as described in subsection 27.1 of the *Metal and Diamond Mining Effluent Regulations*.

- 1.26 *Operation* means the phase of the Designated Project during which the commercial production takes place, including periods during which commercial production may temporarily cease, and which continues until the start of decommissioning.
- 1.27 *Progressive reclamation* means reclamation which is carried out by the Proponent concurrently with all phases of the Designated Project to progressively return any physically disturbed areas to a state as close to the baseline as possible, as soon after the disturbance as practical.
- 1.28 *Property boundary* means the area surrounding the Designated Project area where the Proponent owns surface rights, as defined in Figure 4 of the environmental assessment report.
- 1.29 *Proponent* means Treasury Metals, Inc. and its successors or assigns.
- 1.30 *Qualified individual* means someone who, through education, experience and knowledge relevant to a particular matter, may be relied on by the Proponent to provide advice within his or her area of expertise. Knowledge relevant to a particular matter may include community and Indigenous traditional knowledge.
- 1.31 *Record* means “record” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.32 *Relevant authorities* means federal and/or provincial authorities that are in possession of specialist or expert information or knowledge, or that have a responsibility for the administration of a law or regulation, with respect to the subject matter of a condition set out in this document.
- 1.33 *Reporting year* means July 1 of a calendar year through June 30 of the subsequent calendar year.
- 1.34 *Response to Information Request Round 2* means the March 2019 document entitled From Treasury Metals Inc. to the Canadian Environment Assessment Agency re: Response to Information Requests Related to the Environmental Impact Statement Round 2 (Canadian Environmental Assessment Registry Reference Number 80019, Document Number 33).
- 1.35 *Structure, site or thing of historical, archaeological, paleontological or architectural significance* means a structure, site or thing that is determined by a qualified individual, on the basis of heritage value, to be associated with an aspect of the history or culture of the people of Canada, including Indigenous groups.
- 1.36 *Water frequented by fish* means “water frequented by fish” as defined in subsection 34(1) of the *Fisheries Act*.
- 1.37 *Wetland* means land saturated with water long enough to promote formation of water altered soils, growth of water-tolerant vegetation and various kinds of biological activity that is adapted to the wet environment.

Potential Conditions

These conditions may be established for the sole purpose of the Decision Statement issued under the *Canadian Environmental Assessment Act, 2012*. They do not relieve the Proponent from any obligation to comply with other legislative or other legal requirements of the federal, provincial, or local governments. Nothing in this document shall be construed as reducing, increasing, or otherwise affecting what may be required of the Proponent to comply with all applicable legislative or legal requirements.

2 General conditions

- 2.1 The Proponent shall ensure that its actions in meeting the conditions set out in this document 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.

Consultation

- 2.2 The Proponent shall, where consultation is a requirement of a condition set out in this document:
- 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 available and relevant to 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.
- 2.3 The Proponent shall, where consultation with Indigenous groups is a requirement of a condition set out in this document, 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.

Follow-up and adaptive management

- 2.4 The Proponent shall, where a follow-up program is a requirement of a condition set out in this document, 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.
- 2.6 The Proponent shall provide the follow-up programs referred to in conditions 3.12, 3.13, 3.14, 4.5, 4.6, 4.7, 5.5, 5.6, 6.5, 6.6, 7.3, 7.4, and 7.5 to the Agency 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.
- 2.7 The Proponent shall, where a follow-up program is a requirement of a condition set out in this document:
- 2.7.1 implement the follow-up program during all phases of the Designated Project, unless otherwise required through the condition;
 - 2.7.2 conduct the follow-up program according to the information determined pursuant to condition 2.4;
 - 2.7.3 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);
 - 2.7.4 determine whether modified or additional mitigation measures are required based on the monitoring and analysis undertaken pursuant to condition 2.7.3; and
 - 2.7.5 if modified or additional mitigation measures are required pursuant to condition 2.7.4, develop and implement these mitigation measures in a timely manner and monitor them pursuant to condition 2.7.3.

- 2.8 Where consultation with Indigenous groups is a requirement of a follow-up program, the Proponent 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.

Annual reporting

- 2.9 The Proponent shall, commencing in the reporting year during which the Minister issues their Decision Statement on the Designated Project, 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 document;
 - 2.9.2 how the Proponent complied with condition 2.1;
 - 2.9.3 for conditions set out in this document 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 3.12, 3.13, 3.14, 4.5, 4.6, 4.7, 5.5, 5.6, 6.5, 6.6, 7.3, 7.4, and 7.5;
 - 2.9.6 any modified or additional mitigation measures implemented or proposed to be implemented by the Proponent, as determined under condition 2.7; and
 - 2.9.7 any change(s) to the Designated Project in the reporting year for which the Proponent determined that condition 2.14 did not apply.
- 2.10 The Proponent shall submit to the Agency the annual report referred to in condition 2.9, including an executive summary in both official languages, no later than October 31 following the reporting year to which the annual report applies.

Information sharing

- 2.11 The Proponent shall 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 monitoring results related to contaminants in vegetation, fungi and wildlife, including fish, referred to in condition 7.4 the reports related to accidents and malfunctions referred to in conditions 9.4.2 and 9.4.3, the communication plans referred to in condition 6.4 and 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 abandonment of the Designated Project, whichever comes first. The Proponent shall notify the Agency and Indigenous groups of the availability of these documents within 48 hours of their publication.
- 2.12 When the development of any plan is a requirement of a condition set out in this document, the Proponent shall submit the plan to the Agency prior to construction, unless otherwise required through the condition.

Change of Proponent

- 2.13 The Proponent shall notify the Agency 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.

Change to the Designated Project

- 2.14 The Proponent shall consult with Indigenous groups, Lac Seul First Nation, Lac Des Mille Lacs First Nation, 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).
- 2.15 In notifying the Agency pursuant to condition 2.14, the Proponent shall provide the Agency with 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 the Proponent and the results of the consultation with Indigenous groups, Lac Seul First Nation, Lac Des Mille Lacs First Nation, and relevant authorities.

3 Fish and fish habitat

- 3.1 The Proponent, if authorized under the *Fisheries Act* and its regulations, shall salvage and relocate fish prior to conducting any Designated Project activity requiring removal of fish habitat in a manner consistent with their authorization. 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.
- 3.2 The Proponent shall conduct in-water construction activities during timing windows of least risk for the area, unless otherwise agreed to by relevant authorities, taking into account Ontario's *In-water Work Timing Window Guidelines*. If in-water construction activities cannot be conducted during identified timing windows of least risk, the Proponent shall develop and implement additional mitigation measures, in consultation with Indigenous groups and Fisheries and Oceans Canada, to protect fish during sensitive life stages.
- 3.3 The Proponent shall design, install and operate the water intake structures in the Tree Nursery ponds of Thunder Lake Tributaries 2 and 3 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.
- 3.4 The Proponent shall manage acid generating and potentially acid generating tailings and waste during all phases of the Designated Project. In doing so, the Proponent shall:
- 3.4.1 cover all acid generating and potentially acid generating tailings with a permanent oxygen-limiting barrier prior to acid rock drainage;
 - 3.4.2 cover the waste rock storage area with a permanent oxygen-limiting barrier during decommissioning;

- 3.4.3 identify, in consultation with relevant authorities, the type of oxygen-limiting barrier to be used at the tailings storage facility and waste rock storage facility pursuant to conditions 3.4.1 and 3.4.2;
 - 3.4.4 not use any acid generating and potentially acid generating tailings and waste for construction purposes;
 - 3.4.5 line the tailings storage facility and low-grade ore stockpile with a low permeability liner prior to the deposition of any tailings or low-grade ore in a manner determined by a qualified individual. The Proponent shall consult with relevant authorities when deciding on the type of low permeability liner to be used at the tailings storage facility and low-grade ore stockpile; and
 - 3.4.6 permanently place all remaining low-grade ore into the open pit during decommissioning.
- 3.5 The Proponent shall comply with the *Metal and Diamond Mining Effluent Regulations* and the pollution prevention provisions of the *Fisheries Act*.
- 3.6 The Proponent shall manage mine effluents to comply with *Metal and Diamond Mining Effluent Regulations* and the *Fisheries Act* before it is deposited into the receiving environment. In doing so, the Proponent shall:
- 3.6.1 collect and treat contact water and seepage, from operation through abandonment, from the waste rock storage area, overburden stockpiles, low-grade ore stockpile, tailings storage facility, and open pit. When treating contact water and seepage, the Proponent shall take into account the water quality thresholds established in Table 8 of the environmental assessment report;
 - 3.6.2 construct and maintain all contact water collection ditches with a low-permeability liner to reduce seepage during all phases of the Designated Project. The Proponent shall consult with relevant authorities when deciding on the type of low permeability liner to be used in contact water collection ditches;
 - 3.6.3 combine contact water from the low-grade ore stockpile and waste rock storage area with other site contact water when acid rock drainage is not occurring. If acid rock drainage is occurring, the Proponent shall treat the contact water from the low-grade ore stockpile and waste rock storage area prior to combining with other site contact water. The Proponent shall have a qualified individual determine whether acid rock drainage is occurring; and
 - 3.6.4 direct contact water from the waste rock storage area, overburden stockpiles, and tailing storage facility to the open pit during decommissioning.
- 3.7 The Proponent shall develop prior to construction and implement during all phases of the Designated Project, measures to control erosion and sedimentation within the Designated Project area in a manner consistent with the *Fisheries Act* and its regulations. The Proponent shall submit these measures to the Agency before implementing them.
- 3.8 The Proponent shall not connect the pit lake water to the receiving environment until such time that water in the pit lake complies with the pollution prevention provisions of the *Fisheries Act*.

- 3.9 The Proponent shall, during operation, withdraw water from Tree Nursery Ponds in amounts up to a maximum of 5 percent of daily flows into Tree Nursery Ponds from Thunder Lake Tributaries 2 and 3, provided water withdrawal does not cause adverse effects to fish and fish habitat, except if otherwise authorized.
- 3.10 The Proponent shall develop, to the satisfaction of Fisheries and Oceans 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.
- 3.11 The Proponent shall, for any fish habitat offsetting measure(s) proposed in any offsetting plan(s) referred to in condition 3.10 that may cause adverse environmental effects not considered in the environmental assessment, develop and implement, following consultation with Indigenous groups and relevant authorities, measures to mitigate those effects. The Proponent shall submit these measures to the Agency before implementing them.
- 3.12 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the predictions of the environment assessment and determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on fish and fish habitat, including spawning habitat, caused by blasting. The Proponent shall implement the follow-up program during construction and operation of the Designated Project.
- 3.13 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 determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects of the Designated Project on fish and fish habitat. 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 follow-up program, the Proponent shall:
- 3.13.1 conduct fish health surveys from operation through abandonment in Blackwater Creek, Thunder Lake Tributaries 2 and 3, Hoffstrom's Bay Tributary, Little Creek, Thunder Lake and Wabigoon Lake;
 - 3.13.2 monitor, during all phases of the Designated Project, surface water quality in Blackwater Creek, Thunder Lake Tributaries 2 and 3, Hoffstrom's Bay Tributary, Little Creek, Thunder Lake and Wabigoon Lake to verify the accuracy of environmental assessment predictions in Tables W9-1 to W9-3 in the *Water Addendum (R.3)* submitted as part of *Response to Information Request Round 2*;
 - 3.13.3 monitor surface water flows and levels in Blackwater Creek, Thunder Lake Tributaries 2 and 3, and Hoffstrom's Bay Tributary to verify the assessment predictions listed in Table 7 of the environmental assessment report;
 - 3.13.4 monitor, during all phases of the Designated Project, groundwater quality and quantity upgradient, downgradient and cross-gradient of the tailings storage facility, waste rock storage area, overburden stockpiles, low-grade ore stockpile and underground mine to verify that the predicted groundwater concentrations of

parameters are at or below the values identified in Table W8-1 and W8-3 in the *Water Addendum (R.3)* submitted as part of *Response to Information Request Round 2*; and

- 3.13.5 monitor the water quality of pit lake during filling until the end of abandonment to verify that the concentrations of parameters do not exceed the concentrations in the treatment column in Table W6-3 in the *Water Addendum (R.3)* submitted as part of response to *Information Request Round 2*.
- 3.14 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 the effectiveness of the mitigation measures as it pertains to acid rock drainage into the receiving environment from the Designated Project area, including from the waste rock storage area and the tailings storage facility. The Proponent shall implement the follow-up program from operation through abandonment and for a minimum of 15 years after abandonment ends. In doing so, the Proponent shall:
- 3.14.1 conduct geochemical testing of waste rock and tailings as they are being generated to verify the magnitude and onset of potential acid rock drainage in waste rock and tailings, taking into account the Mine Environment Neutral Drainage program's *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (2009)*; and
 - 3.14.2 verify that the oxygen-limiting barriers installed at the tailings storage facility and waste rock storage area pursuant to condition 3.4.1 and 3.4.2 are performing and will continue to perform as predicted in the environmental assessment report.

4 Migratory birds

- 4.1 The Proponent shall 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 *Guidelines to reduce risk to migratory birds*. 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*.
- 4.2 The Proponent shall control lighting required from construction through abandonment of the Designated Project, including direction, timing and intensity, to mitigate adverse effects on migratory birds, while meeting health and safety requirements.
- 4.3 The Proponent shall develop, prior to construction, and in consultation with relevant authorities, measures to mitigate the effects of Designated Project activities on migratory birds during sensitive periods. The Proponent shall implement the mitigation measures during all phases of the Designated Project. The Proponent shall submit these measures to the Agency before implementing them.
- 4.4 The Proponent shall compensate for the loss of barn swallow (*Hirundo rustica*) nesting sites as a result of the Designated Project in consultation with relevant authorities, taking into account Ontario's Recovery Strategy for barn swallow (*Hirundo rustica*). In doing so, the Proponent shall

install, prior to construction, and maintain, for three years following installation, artificial barn swallow (*Hirundo rustica*) nesting structures.

- 4.5 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the predictions of the environmental assessment and determine the effectiveness of all mitigation measures as it pertains to avoiding harm to migratory birds, their eggs and nests, including the mitigation measures used to comply with condition 4.1 through 4.4 . 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:
- 4.5.1 conduct pre-construction surveys in consultation with Environment and Climate Change Canada to confirm the distribution of migratory birds and their habitat within the Designated Project area, including fen habitat, as described in the *Goliath Gold Project- MMC-11.1 "Mitigation Monitoring, and Commitment List" submitted to the Agency as part of Information Request #2;*
 - 4.5.2 conduct migratory bird surveys during operation to assess changes in migratory bird populations caused by the Designated Project. The Proponent shall determine the methodology, including the frequency and location of these surveys, in consultation with Indigenous groups and relevant authorities;
 - 4.5.3 monitor noise levels within the Designated Project area during construction and operation. The Proponent shall determine the methodology, including the frequency and location of these surveys, in consultation with Indigenous groups and relevant authorities; and
 - 4.5.4 monitor barn swallow (*Hirundo rustica*) replacement habitat annually for three years after installation, to assess nesting activity and structure use, taking into account Ontario's *Recovery Strategy for the Barn Swallow (Hirundo rustica) in Ontario*.
- 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 Designated Project area. As a part of the implementation of the follow-up program, the Proponent shall:
- 4.6.1 monitor the use by migratory birds of the tailings storage facility and onsite contact water ponds from operation through abandonment until such time that water quality in these structures meet legislative requirements and the water quality predictions in Table 2 "Refined Ecological Toxicity Assessment for Mammals and Birds" in *Final Round 2 Wildlife Information Requests* submitted as part of *Response to Information Request Round 2;*
 - 4.6.2 monitor, the use by migratory birds, including barn swallow (*Hirundo rustica*), of the pit lake from the start of filling of the pit lake until such time that water quality in these structures meet legislative requirements and do not exceed the treated water quality predictions in Table W6-3 in the *Water Addendum (R.3)* submitted as part of *Response to Information Request Round 2;* and

- 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 tailings storage facility, the onsite ponds or the pit lake, develop and implement deterrent measures pursuant to condition 2.7 until such time that water quality in these structures meet legislative requirements and water quality predictions described in conditions 4.6.1 and 4.6.2. The Proponent shall submit these measures to the Agency before implementing them.
- 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 as it pertains to avoiding collisions with migratory birds. The Proponent shall implement the follow-up program from construction through decommissioning. As part of the implementation of the follow-up program, the Proponent shall:
 - 4.7.1 monitor collisions between project vehicles and migratory birds within the Designated Project area during construction, operation and decommissioning. If collisions between project vehicles and migratory birds are recorded within the Designated Project area, the Proponent shall develop measures to avoid collisions, in consultation with Indigenous groups and Environment and Climate Change Canada, and implement these mitigation measures pursuant to condition 2.7; and
 - 4.7.2 conduct common nighthawk (*Chordeiles minor*) roosting surveys along project roads within the Designated Project area beginning one year prior to construction and continuing annually through construction, operation and decommissioning. If common nighthawk (*Chordeiles minor*) is observed roosting along project roads within the Designated Project area, the Proponent shall develop modified or additional mitigation measures to avoid common nighthawk (*Chordeiles minor*) collisions with vehicles at these locations, in consultation with Indigenous groups and Environment and Climate Change Canada, and implement these mitigation measures pursuant to condition 2.7.

5 Wetlands

- 5.1 The Proponent shall maintain forested areas within the Designated Project area excluding areas required to construct project components.
- 5.2 The Proponent shall use measures other than broadcast spraying when applying herbicides to control invasive species, unless not technically and economically feasible.
- 5.3 The Proponent shall maintain, during construction and operation, a 120-metre buffer of undisturbed vegetation around water frequented by fish and wetlands located within the mine site, excluding activities required to construct project components.
- 5.4 As part of progressive reclamation referred to in condition 6.1, the Proponent shall reclaim wetlands and buffer strips around wetlands and water frequented by fish disturbed by the construction activities of the Designated Project. In doing so, the Proponent shall reclaim buffer strips around wetlands and water frequented by fish to a 120-metre width as soon after the disturbance as possible and as the construction work is completed.

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 predictions of the environmental assessment and determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects of the Designated Project on wetlands. In doing so, the Proponent shall:

5.5.1 monitor the extent of wetlands and wetland water levels inside the Designated Project Area to verify the predicted spatial limits of the groundwater drawdown zone identified in Figure TMI_871-WL(2)-02_Figure 1 found in the *Final Round 2 Wildlife Information Requests, February 1, 2019* submitted as part of the *Response to Information Request Round 2* during construction and operation.

5.6 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 and determine the effectiveness of the mitigation measures as it pertains to the presence of snapping turtle (*Chelydra serpentina*) or their eggs within the Designated Project area. As part of the follow-up program the Proponent shall:

5.6.1 monitor for the presence of snapping turtles (*Chelydra serpentina*) within the Designate Project area during construction, operation and decommissioning. If the Proponent observes snapping turtle (*Chelydra serpentina*) or their eggs, the Proponent shall develop, in consultation with Indigenous groups and relevant authorities, mitigation measures pursuant to condition 2.7, which shall include, at a minimum, the relocation of snapping turtles outside of the Designated Project area; and

5.6.2 monitor collisions between project vehicles and snapping turtle (*Chelydra serpentina*) within the Designated Project area during construction, operation and decommissioning. If collisions between project vehicles and snapping turtles (*Chelydra serpentina*) are recorded within the Designated Project area, the Proponent shall develop mitigation measures to avoid collisions, pursuant to condition 2.7.

6 Current use of lands and resources for traditional purposes

6.1 The Proponent shall undertake, in consultation with Indigenous groups and relevant authorities, progressive reclamation of the Designated Project 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. In doing so, the Proponent shall:

6.1.1 identify, prior to the start of progressive reclamation and in consultation with Indigenous groups, 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

6.1.2 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.

- 6.2 The Proponent shall provide Indigenous groups with access, during all phases of the Designated Project, to areas within the property boundary for cultural purposes or for exercising Aboriginal rights, to the extent that such access and exercising of rights are safe. The Proponent shall advise Indigenous groups pursuant to condition 6.4.1.1 if access to the mine site or any part thereof must be prohibited for safety reasons. In doing so, the Proponent shall:
 - 6.2.1 develop, prior to construction and in consultation with Indigenous groups, and implement procedures for Indigenous groups to request and gain access to the Designated Project area;
 - 6.2.2 allow Indigenous groups and their members to access and navigate within the property boundary, excluding the Designated Project area, unaccompanied by employees or contractors associated with the Designated Project, to the extent that it is safe to do so. The Proponent shall have employees or contractors associated with the Designated Project accompany Indigenous groups when they access the Designated Project area; and
 - 6.2.3 provide personal protective equipment and information on where personal protective equipment should be worn within the property boundary to Indigenous groups and their members accessing areas within the property boundary.
- 6.3 The Proponent shall mitigate the adverse effects of blasting on the current use of lands and resources for traditional purposes by Indigenous groups. In doing so, the Proponent shall:
 - 6.3.1 conduct blasting activities between 10:00 am and 4:00 pm, unless required for safety reasons;
 - 6.3.2 conduct blasting outside of statutory holidays and days of cultural importance that the Proponent shall identify in consultation with Indigenous groups, unless required for safety reasons; and
 - 6.3.3 advise Indigenous groups pursuant to condition 6.4.1.2 of any update to the blasting schedule within 48-hours prior to the blasting schedule changes taking effect.
- 6.4 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a communication plan to share information with Indigenous groups on adverse environmental effects of Designated Project activities as they relate to impacts on Indigenous health and on the practice of Indigenous activities. The Proponent shall implement and maintain the communication plan during all phases of the Designated Project. The communication plan shall include:
 - 6.4.1 procedures, including timing and methods, for sharing information on the following:
 - 6.4.1.1 the location and timing of Designated Project activities that may affect quality of experience to Indigenous uses of lands for traditional purposes caused by changes in dust, noise or light within the property boundary

and that may permanently or temporarily affect navigation within or access to the Designated Project area;

- 6.4.1.2 the dates and times of all regularly-scheduled blasting events to be conducted by the Proponent, any update to the blasting schedule, or if the Proponent must conduct blasting activities before 10:00 am or after 4:00 pm or on statutory holidays or days of cultural importance for Indigenous groups; and
- 6.4.1.3 the results of the follow-up program referred to in conditions 3.12, 3.13, 3.14, 4.5, 4.6, 4.7, 5.5, 5.6, 6.5, 6.6, 7.3, 7.4, and 7.5, 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 for each follow-up program.

- 6.4.2 procedures for Indigenous groups to provide feedback to the Proponent about adverse environmental effects caused by the Designated Project related to access to and use of lands for traditional purposes, and procedures for the Proponent to document and respond in a timely manner to the feedback received and demonstrate how issues have been addressed, including through the implementation of additional or modified mitigation measures.

- 6.5 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 areas within the property boundary pursuant to condition 6.2. In doing so, the Proponent shall take into account any available traditional land use knowledge, including knowledge of plant gathering, hunting, trapping, fishing and cultural activities in areas within the property boundary. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the follow-up program, the Proponent shall:

- 6.5.1 monitor collisions between project vehicles and wildlife within the Designated Project area during construction, operation and decommissioning. If collisions between project vehicles and wildlife are recorded within the Designated Project area, the Proponent shall develop mitigation measures to avoid collisions, in consultation with Indigenous groups and relevant authorities, and implement these mitigation measures pursuant to condition 2.7.

- 6.6 The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to assess the effectiveness of the progressive reclamation referred to in condition 5.4 and 6.1 and shall implement the program during all phases of the Designated Project. In doing so, the Proponent shall:

- 6.6.1 identify performance indicators that shall be used by the Proponent to evaluate the effectiveness of the progressive reclamation; and
- 6.6.2 monitor the effectiveness of the progressive reclamation, including the establishment of native plant species, from operation through abandonment until the Proponent has determined, in consultation with Indigenous groups and relevant authorities, that the performance indicators have been met.

7 Health and socio-economic conditions of Indigenous Peoples

- 7.1 The Proponent shall develop, prior to construction, measures to mitigate emissions of dust and fugitive particulate emissions generated by the Designated Project, including dust associated with use of mine vehicles on roads and the handling and storage of project materials located within the Designated Project area, 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 implement these measures from construction through decommissioning and shall submit these measures to the Agency before implementing them.
- 7.2 The Proponent shall develop, in consultation with Indigenous groups, measures to deter ungulates from the tailings storage facility, and implement these measures from the time that the tailings storage facility becomes operational through abandonment.
- 7.3 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 as a result of changes to air quality. The Proponent shall implement the follow-up program from the construction phase through decommissioning. As part of the follow-up program, the Proponent shall:
- 7.3.1 identify, prior to construction and in consultation with Indigenous groups, 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;
 - 7.3.2 monitor fine particulate matter (PM_{2.5}) and nitrogen dioxide at the monitoring locations identified pursuant to condition 7.3.1 using 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 fine particulate matter (PM_{2.5}) and nitrogen dioxide in real time; and
 - 7.3.3 monitor particulate matter (PM₁₀), including trace metals, at the monitoring locations identified pursuant to condition 7.3.1, using 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 particulate matter (PM₁₀), including trace metals, at a minimum frequency of monthly.
- 7.4 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 and determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects of the Designated Project on the health of Indigenous Peoples caused by changes in concentrations of contaminants of potential concern in vegetation, fungi and wildlife, including fish. As part of the development of the follow-up program, the Proponent shall determine in consultation with Indigenous groups, the vegetation, fungi, and wildlife species,

including fish, that shall be monitored, the locations where the monitoring shall be conducted, the contaminants to be monitored and the timing and frequency of the monitoring. The Proponent shall implement the follow-up program from construction through decommissioning. In doing so, the Proponent shall:

- 7.4.1 monitor beginning three months prior to construction and continuing through decommissioning, contaminants of potential concern, including arsenic, cobalt, lead, mercury, methylmercury, thallium and zinc in vegetation, fungi and wildlife species, including fish, at a minimum sampling frequency of annually; and
- 7.4.2 if the sampling and monitoring results referred to in condition 7.4.1 exceed the predictions made during the environmental assessment, implement any modified or additional mitigation measures pursuant to condition 2.7 based on the results of the follow-up program and update the human health risk assessment identified by the Proponent in the Final Human Health and Ecological Risk Assessment (February 2019), submitted as part of *Response to Information Request Round 2* using the results of the sampling and monitoring. The Proponent shall integrate the current and predicted consumption patterns of each Indigenous group identified during the environmental assessment in the updated human health risk assessment and any updated consumption pattern information provided by Indigenous groups as part of the follow-up program.

7.5 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 determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects of the Designated Project on the health of Indigenous Peoples caused by changes in concentrations of contaminants of potential concern in water. As part of the development of the follow-up program, the Proponent shall identify the locations where the monitoring shall be conducted, the contaminants to be monitored and the frequency of the monitoring. The Proponent shall implement the follow-up program from construction through abandonment. As part of the development of the follow-up program, the Proponent shall:

- 7.5.1 monitor sulphate concentrations in the effluent discharge into Blackwater Creek to verify that concentrations will not exceed 20 milligrams per litre;
- 7.5.2 monitor mercury concentrations in the effluent discharge into Blackwater Creek to verify that concentrations will not exceed background levels in Section 6, Table 6.8.2.1-1 of the revised Environmental Impact Statement; and
- 7.5.3 monitor thallium concentrations in Blackwater Creek, Thunder Lake Tributaries 2 and 3, Hoffstrom's Bay Tributary, Little Creek, Thunder Lake and Wabigoon Lake, beginning three months prior to construction and continue monitoring for a minimum of two years into operation, to verify the environmental assessment prediction for the Project Only contribution of thallium during Site Preparation and Construction and Operations in Table 3.5.3.4-1 of the Final Human Health and Ecological Risk Assessment (February 2019), submitted as part of *Response to Information Request Round 2*.

8 Physical and cultural heritage and structures, sites or things of historical, archaeological, paleontological or architectural significance

- 8.1 For any previously unidentified structures, sites or things of historical, archaeological, paleontological or architectural significance discovered within the Designated Project area by the Proponent or brought to the attention of the Proponent by an Indigenous group or another party during any phase of the Designated Project, the Proponent shall:
- 8.1.1 immediately halt work at the location of the discovery, except for actions required to be undertaken to protect the integrity of the discovery;
 - 8.1.2 delineate an area of at least 50 metres around the discovery as a no-work zone;
 - 8.1.3 have a qualified individual, whose expertise pertains to the requirements of Ontario's *Heritage Act*, conduct an assessment at the location of the discovery;
 - 8.1.4 inform the Agency and Indigenous groups within 24 hours of the discovery, and allow Indigenous groups to monitor archaeological works; and
 - 8.1.5 consult with Indigenous groups and relevant authorities on the manner by which to comply with all applicable legislative or legal requirements and associated regulations and protocols respecting the discovery, recording, transferring and safekeeping of previously unidentified structures, sites or things of historical, archaeological, paleontological or architectural significance.

9 Accidents and malfunctions

- 9.1 The Proponent shall take all reasonable measures to prevent accidents and malfunctions that may result in adverse environmental effects, including:
- 9.1.1 designing, constructing and operating project components, including the contact water ditches, minewater collection system and tailings storage facility to accommodate a 1-in-100 dry year and environmental design storm events identified in Table A of the *Additional Clarification Requests from May 14, 2019* submitted to the Agency as part of the *Response to Clarification for Information Request Round 2* of the Environmental Impact Statement (Canadian Environmental Assessment Registry Reference Number 80019, document number 36); and
 - 9.1.2 designing, constructing and operating the tailings management facility dams taking into account the Canadian Dam Association's *Dam Safety Guidelines*.
- 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.
- 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. The accident and malfunction plan shall include:
- 9.3.1 A description of the types of accidents and malfunctions that may cause adverse environmental effects;

- 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; and
 - 9.3.3 measures, as part of condition 9.3.2, to be implemented in response to a tailings storage facility dam failure, which shall include:
 - 9.3.3.1 the development and implementation of a recovery strategy that includes mitigating the effects of the release of potentially acid generating tailings into the receiving environment prior to the onset of acid rock drainage;
 - 9.3.3.2 monitoring metal concentrations in northern wild rice (*Zizania palustris*) in Blackwater Creek; and
 - 9.3.3.3 monitoring water, sediment and fish tissue in Wabigoon Lake in the vicinity of Christie's Island, Thunder Creek, and Bonny Bay for cadmium, cobalt, copper, cyanide, lead, mercury, selenium, and thallium. In addition, water monitoring for alkalinity, dissolved organic carbon, hardness, pH, ammonia, total phosphorus, total dissolved solids, suspended solids, and total organic carbon and sediment monitoring for methyl mercury, pH, total organic carbon and fraction of organic carbon.
- 9.4 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 9.3.3 and shall:
- 9.4.1 notify, as soon as possible, Indigenous groups and relevant authorities of the accident or malfunction, and notify the Agency 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:
 - 9.4.1.1 the date the accident or malfunction occurred;
 - 9.4.1.2 a summary description of the accident or malfunction; and
 - 9.4.1.3 a list of any substances potentially released into the environment as a result of the accident or malfunction.
 - 9.4.2 submit a written report to the Agency no later than 30 days after the day on which the accident or malfunction occurred. The written report shall include:
 - 9.4.2.1 a detailed description of the accident or malfunction and of its adverse environmental effects;
 - 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;
 - 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 and the measures taken by the Proponent to mitigate these adverse environmental effects;

- 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
 - 9.4.2.5 details concerning the implementation of the accident or malfunction response plan referred to in condition 9.3.
 - 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 the 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 9.4.2.3 were received by the Proponent.
- 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. The plan shall include:
 - 9.5.1 the types of accidents and malfunctions requiring the Proponent to notify the respective Indigenous groups;
 - 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
 - 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.

10 Schedules

- 10.1 The Proponent shall submit to the Agency a schedule for all conditions set out in this document 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 this document and the commencement and estimated completion month(s) and year(s) for each of these activities.
- 10.2 The Proponent shall submit to the Agency a schedule 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.
- 10.3 The Proponent shall submit to the Agency in writing an update to schedules referred to in conditions 10.1 and 10.2 every year no later than June 30, until completion of all activities referred to in each schedule.

- 10.4 The Proponent shall provide to the Agency revised schedules 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.
- 10.5 The 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 conditions 10.3 and 10.4 at the same time the Proponent provides these documents to the Agency.

11 Record keeping

- 11.1 The Proponent shall maintain all records relevant to the implementation of the conditions set out in this document. 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 abandonment 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.
- 11.2 The Proponent shall retain all records referred to in condition 11.1 at a facility in Canada and shall provide the address of the facility to the Agency. 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.