

Table 1: The Agency seeks clarification on the following mitigation measures and commitments by the proponent to support the Agency's understanding of the effects of the Project to the environment. If these clarifications result in changes to the document "R.1 Goliath Gold Project Mitigation, Monitoring and Commitments (March 6, 2019)", update that document and resubmit it to the Agency.

ltem No.	Context	Mitigation, Monitoring Requirement, or Commitment proposed by the proponent in the response to IR#2	Clarification of the commitment
1	Mercury concentration in the pit lake The Agency notes that during and after operations, water discharged into the Blackwater Creek would be treated to meet the background concentrations for mercury in Blackwater Creek (0.00001 mg/L), as mentioned in Table 6.3.4.3-1 of the revised EIS.	MMC-7.14: The pit lake will be monitored as it is filling to determine whether batch treatment will be required to ensure the water meets PWQO, or background concentrations if background levels are greater than the PWQO, prior to the discharge from the pit lake to a tributary of Blackwater Creek.	Clarify whether water in the pit lake would be treated to meet the same concentration for mercury as is committed for Blackwater Creek (0.00001 mg/L).
	Since the pit lake would be connected with Blackwater Creek upon filling during abandonment, the Agency seeks clarification on the appropriate water quality criteria for mercury that will be targeted for treatment of pit lake water.	MMC-7.2: During Operations, effluent discharged from the Project to Blackwater Creek will meet the Provincial Water Quality Objectives (PWQO) for the parameters listed below, or background concentrations if background levels are above the PWQO. Where there is no PWQO for a parameter, the commitment will be to meet the Canadian Water Quality Guidelines (CWQG). For total mercury, the commitment will be that effluent discharged to Blackwater Creek will meet background concentrations for that watercourse. Background concentrations for Blackwater Creek are defined as the 75th percentile in accordance MOECC receiving water assessment policy. Detailed parameters will be determined through engagement with appropriate Provincial and Federal regulatory bodies [Cmt_034].	
2	Beaver Management Strategy Beaver is an important species to the Métis Nation of Ontario that is traditionally hunted and commercially trapped. Additional communities, such as Eagle Lake First Nation and Wabigoon Lake Ojibway Nation have indicated that beavers are important for hunting and trapping. The Agency notes that mitigation measures proposed by the proponent refer to beavers as nuisance wildlife, which is not reflective of Indigenous communities' perspectives and use of beavers for traditional and commercial purposes.	 MIT 126: Prior to construction activities, Treasury Metals will engage with the local trapping council, Indigenous communities and the MNRF to prepare a plan for the removal of nuisance wildlife (i.e., beaver) within the Blackwater Creek watershed. MMC-13.9: Prior to overburden removal, any beaver dams within the Project footprint will be removed and the impoundments will be allowed to draw down. This will reduce the number of fish that will remain in isolated sections of Blackwater Creek Tributary 1 and Blackwater Creek Tributary 2. 	The mitigation measures regarding beavers should be revisited in consideration of the factors outlined in the Context column. Any plans to address potential effects on beavers should be prepared and implemented in consultation with the Indigenous communities.

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The Agency has correctly re-stated Treasury Metals commitment regarding the quality of water to be released from the pit lake (MMC-7-14 and MMC-7.15). Water to be released from the pit lake will meet PWQO, or background concentrations if background levels are greater than the PWQO, prior to the discharge from the pit lake to a tributary of Blackwater Creek. Treasury Metals will monitor the pit lake as it is filling (MMC-7.14) and once filled (MMC-7.15) to determine whether batch treatment will be required to ensure the commitments are met.

As the background values are lower than the PWQO, the commitment for mercury released from the pit lake would be 0.0002 mg/L, the current PWQO for mercury. In contrast, the background concentration of mercury in Blackwater Creek upstream of the Project (SW-11, see Figure 5.8.1-1 of the revised EIS [April 2018]) is calculated to be 0.00002 mg/L, based on the average of the available data, or 0.00001 mg/L, based on the 75th percentile of the available data.

Treasury Metals may need to obtain environmental approvals for closure, and will comply with any monitoring and mitigation requirements set out.

The mitigation measures for beavers have been revisited and revised in the Goliath Gold Project Mitigation, Monitoring and Commitments List (May 2019). To clarify, for Project operations the term "nuisance" wildlife is not intended to be pejorative, but refers to wildlife that could negatively affect the safety of the Project operations and its employees. Beaver would only be considered "nuisance" wildlife if their activities were identified as posing a risk to the safe management of water and runoff at the Project.

Treasury Metals is mindful that mammals such as beavers and other wildlife are important to Indigenous community members who practice traditional land and resource use. The language in the Goliath Gold Project Mitigation, Monitoring and Commitments List (May 2019) has been revised to more appropriately capture Treasury Metals intentions with respect to wildlife management plans. Specifically, the list has been revised to state the following:

 MMC-11.56 (new): Treasury Metals will consult with the local trapping council, Indigenous communities and the MNRF in the preparation and implementation of a Wildlife Management Plan the removal of wildlife that pose a threat to





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				 the safety of Project operations or workers (e.g., beaver) with the Blackwater Creek Watershed or Project Study Area. <u>MMC-13.9 (revised)</u>: Prior to overburden removal, any beaver dams within the Project footprint will be removed at the impoundments will be allowed to draw down. Beaver daremoval will be conducted in accordance with the Wildlife Management Plan as per MMC-11.56. Removal of beaver dams will reduce the number of fish that will remain in isolated sections of Blackwater Creek Tributary 1 and Blackwater Creek Tributary 2.
the o scheo would	relates to Indigenous use in proximity to perations area, providing a blasting dule and time window for when blasting d likely occur would allow Indigenous	MMC-3.2: A blasting schedule and plan will be developed to notify the public when blasting will occur and to describe all blasting activities on site. This plan will be developed though consultation with local stakeholders and regulatory officials.	Clarify the commitment made for blasting schedule and plan, while taking into account the factors outlined in the Context column.	 Treasury Metals commitments with respect to the blasting schedule was identified as MMC-3.2 in the Goliath Gold Proje Mitigation, Monitoring and Commitments List. The commitme has been modified as follows: <u>MMC-3.2 (revised)</u>: Prior to construction, a blasting
of the The <i>I</i> blasti	mmunities to plan for disruption to their use the land and waters surrounding the project. e Agency notes that a time window for usting is not provided in the revised EIS or in e response to IR#2, but a commitment was		schedule and plan will be developed to notify Indigenous community members and other members of the public whe blasting will occur and to describe all blasting activities on site. This plan will be developed though consultation with local Indigenous community members, stakeholders and regulatory officials.	
made The A	e to produce a blasting schedule and plan. Agency seeks clarification on this blasting			Treasury Metals has made an additional commitment to the Goliath Gold Project Mitigation, Monitoring and Commitments List (MMC-3.21) to reflect that Treasury Metals is committed working collaboratively with Indigenous communities to ensure
provie time v	dule and plan, including the feasibility of ding a set window when blasting would occur, in ultation with Indigenous communities,			informed and engaged dialogue throughout the life of the Project including on issues related to blasting and how it might impact traditional land and resource use.
taking when cultur	g into account: statuary holidays except n necessary for safety reasons, days of ral importance, and communications dule to provide advance notice of blasting.			• <u>MMC-3.21 (new)</u> : Treasury Metals is committed to working collaboratively with Indigenous communities to ensure informed and engaged dialogue throughout the life of the Project and has proposed the formation of an Environmen Management Committee to aid in continued dialoged. The Environmental Management Committee is intended to provide a forum for discussing environmental matters with the potentially affected Indigenous communities such the incorporation of traditional knowledge or items of cultural significant that might have been collected since completion of the EA process. Environmental matters that the Environmental matters are provided by the environmental matters.
				Environmental Management Committee would review include but not limited to the blasting schedule and how it may interfere with days of cultural significance. As part of

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4	Chanterelle mushrooms sampling The Agency seeks clarification on the sampling frequency and reporting of chanterelle mushrooms and collocated soil samples that informs both Indigenous communities and consumers about the quality of chanterelle mushrooms for consumption.	MMC-20.74: "Treasury Metals will collect opportunistic chanterelle mushrooms samples and collocated soil samples, as required, and send all samples for chemical analysis to capture any potential effects of the Project on the quality of chanterelle mushrooms for consumption harvested by Indigenous communities for commercial or subsistence purposes, and in turn socio-economic effects. The results of the annual opportunistic chanterelle mushrooms sampling program will be shared with the Indigenous communities. Additionally, Treasury Metals will include the results of the chanterelle mushrooms sampling program (if any) in the annual"	Clarify a timeline of chanterelle mushrooms sampling within areas of current use that is consistent with harvesting to adhere to annual reporting. Additionally, clarify the development of a sampling methodology with Indigenous communities that is reflective of Indigenous use and the sensitivity of harvested chanterelle mushrooms, prior to construction.

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commitment, Treasury Metals will share information specifically with respect to blasting with all Indigenous community members and will do so, via the notable events report to be posted publicly to the Treasury Metals website, and or delivered to each community in the form of a news letter. The Environmental Management Committee will provide the conduit for which Treasury Metals may amend their blasting schedule in sufficient time to accommodate concerns raised by members of the Indigenous communities. Changes in the blasting schedule in response to a request from the Environmental Management Committee, and or to address exceptional circumstances would be shared through the notable events report link on the Treasury Metals website.

To clarify, the exact timeline for chanterelle mushrooms harvesting was not specified and instead "opportunistic" was used to reflect that although the fruiting body of chanterelle mushrooms are most likely to emerge in September based on climate conditions, chanterelle mushrooms are not guaranteed to produce a fruiting body annually. Nonetheless, the language of MMC-20.74 in the Goliath Gold Project Mitigation. Monitoring and Commitments List has been revised to provide clarity with respect to the timeline of chanterelle mushroom monitoring and harvesting (if monitoring confirms presence) as well as a sampling methodology to demonstrate that the Indigenous communities will be consulted in the development of the monitoring plan. The sampling methods were adopted from peer reviewed scientific literature by Nearing et al. (2016), which examined contaminant uptake into edible mushrooms of the same class as chanterelle specifically in mushrooms collected from mine sites in Canada.

• MMC-20.74 (revised): "...Treasury Metals will collect chanterelle mushrooms samples and collocated soil samples, as available, and send all samples for chemical analysis to capture any potential effects of the Project on the quality of chanterelle mushrooms for consumption harvested by Indigenous communities for commercial or subsistence purposes, and in turn socio-economic effects. Full details of the chanterelle mushroom sampling methodology will be determined prior to construction in consultation with the Indigenous communities by way of the Environmental Management Committee, and adjusted as needed





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5	Invasive species surveys and monitoring The Agency seeks clarification on the area and the phases of the Project that would be surveyed and monitored for invasive species.	MMC-11.49: Surveys of existing invasive species populations will be conducted prior to construction, followed by a monitoring plan to ensure invasive species populations are not increasing in numbers or areas.	Clarify the areas (e.g. project study area, local study area, etc.) that would be surveyed and monitored for invasive species. Also clarify the phases of the project (e.g. construction, operation, etc.) during which monitoring for invasive species would be conducted.

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throughout the life of the Project by way of the Environmental Management Committee. However, it is expected that monitoring for chanterelle mushrooms presence will occur annually in the month of September and that if present samples will be collected, placed in a brown paper bag, rinsed, frozen prior to analysis and sent to an accredited laboratory. The results of the annual chanterelle mushrooms sampling program including abundance and chemical concentrations, will be shared with the Indigenous communities. Additionally, Treasury Metals will include the results of the chanterelle mushrooms sampling program (if any) in the annual environmental report...

Reference:

Nearing, M. M., Koch, I., & Reimer, K. J. (2016). Uptake and transformation of arsenic during the reproductive life stage of Agaricus bisporus and Agaricus campestris. Journal of Environmental Sciences, 49, 140-149.

The area where the invasive species surveys would occur would be the Project Study Area. An invasive species survey plan would be included as part of the overall environmental management plan and would be completed for site preparation and construction, operations and closure. The frequency of the surveys will be determined prior to construction. The text in the Goliath Gold Project Mitigation, Monitoring and Commitments List has been revised, and now reads as follows:

• MMC-11.49 (revised): An invasive species survey plan for monitoring the presence of invasive species within the Project Study Area will be included as part of the environmental management plan. Surveys of existing invasive species populations will be conducted prior to construction, followed by a monitoring plan for operations and closure to ensure invasive species populations are not increasing in numbers or areas. The frequency of the invasive species surveys will be determined prior to construction.

