

**Fortune Minerals Ltd.
Nico Mine**

Fisheries and Oceans Information Request

IR Number: DFO_1
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Marian River Bridge
DAR Section: 3.3.1.2, 12.3.2
ToR Section: Appendix B (25), Appendix E(6)(7)

Preamble:

The largest crossing associated with the Nico Property Access Road (NPAR) is proposed to be a clear span bridge located at the Marian River. Figure 3.3.1 of the Developer's Assessment Report (DAR) shows a conceptual design of the bridge including the abutments in relation to the 100-year high water level and the "survey water level". The methodology or baseline information for determining the "survey water level" was not provided.

Request:

In order for DFO to determine if any in-stream works may be required for the construction of the bridge, please provide details on how the "survey water level" was determined. Please also provide a short explanation of a "survey water level" in comparison to a "high water mark".

IR Number: DFO_02
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Pond 3, 4 and 5 – Contingency Pond
DAR Section: Figure 12.1-1 in Section 12.0 DAR; Figure 7.2-2 Annex C –
Aquatic Baseline Report for the proposed Nico Project
ToR Section:

Preamble:

Ponds 3, 4 and 5, which are connected to Peanut Lake, have been identified as the potential location for a contingency water storage pond, if required. Figure 12.1-1 shows all the waterbodies included in the local and regional study area for the environmental impact assessment. Ponds 3, 4 and 5 were included in the regional study area but not as part of the local study area.

Request:

Since ponds 3, 4 and 5 could be directly impacted by the contingency pond, please provide a rationale for why these ponds were not included as part of the local study area.

Figure 7.2-2 in Annex C of the Aquatic Baseline Report, shows the location of where fisheries baseline surveys were conducted. Ponds 3, 4 and 5 were not included in the fisheries baseline surveys. Please provide a rationale for not conducting baseline fisheries works in the ponds since they are not only directly impacted by the project but also seen to be connected to Peanut Lake that is known to contain fish.

IR Number: DFO_03
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Sediment and Erosion Control
DAR Section: 3, 9, 12, 13
ToR Section: Appendix B(25), Appendix E(4,6), Appendix G(4)

Preamble:

Promoting and implementing erosion and sediment control measures is considered to be a best management practice for any activities near water. Most impacts to fish and fish habitat caused by erosion and sedimentation are easily preventable and can be mitigated using standard techniques. Fish are highly susceptible to effects of sedimentation and erosion, such as gill abrasion, potential asphyxiation of eggs, loss of interstitial spaces inhabited by juvenile fish and invertebrate food species, effects to visual predators caused by turbidity, etc. In various sections of the DAR, Fortune makes references to “standard erosion control measures” including in Sections 3.14.11, 9.4.4, and 13.4.2.

Request:

It is referenced throughout the DAR that Fortune will use “standard erosion control measures” but specific details on where and what kinds of measures will be utilized to mitigate potential sediment and erosion issues are not provided. Areas of interest include the installation of the Peanut Lake diffuser, the installation of the water intake structure into Lou Lake, and all watercourse crossings.

IR Number: DFO_04
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Water Quantity
DAR Section: 3.9.3, Section 11, Appendix 11
ToR Section: 3.3.5, 3.3.6, Appendix 2(E)(a)

Preamble:

Drainage alterations, water withdrawals and changes to groundwater are among the activities presented in the DAR that could have potential impacts to flow and water levels in Peanut lake and other lakes within the watershed. Although the DAR discusses individual impacts to surface water and groundwater components within the watershed, it does not present a clear summary of the collective water quantity impacts.

Request:

Please submit a clear summary of the collective impacts of alterations to water quantity on Nico and Peanut Lakes and a prediction of how that may impact downstream lakes such as Burke and downstream into Marian River (including connecting waterways) at the various stages of the project (pre-development, construction, operation, closure before and after filling of the pit). This could include a summary of predicted inflows and outflows as well as water levels at the major waterbodies during the various stages of mine life as well as an assessment of potential impacts to fish and fish habitat that may result.

IR Number: DFO_05
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Water Intake Screen
DAR Section: 12.3.2.1.1
ToR Section: Appendix E

Preamble:

On Page 12-57, Fortune states that “the appropriate screen size will be determined in consultation with DFO for the planned pumping rates to prevent fish from entering pump during water withdrawal.”

Request:

Provide any current information on anticipated pump rates and intake designs proposed for Lou Lake. DFO will continue to work with Fortune in this area to ensure that any potential impacts to fish species within Lou Lake are minimized.

IR Number: DFO_06
Source: Fisheries and Oceans Canada
To: Fortune Minerals Ltd.
Subject: Habitat Alterations at Lou Lake and Peanut Lake
DAR Section: Section 12
ToR Section: 3.3.6, Appendix E(2)(a)

Preamble:

In Section 12 of the DAR, Fortune outlines the potential alterations to habitat in the immediate vicinity of the water intake structure at Lou Lake and the diffuser at Peanut Lake. It also summarizes the net changes to habitat in both these areas as well the potential changes to usage based on the fish species present at each site.

Request:

While Table 12.3-2 and Table 12.3-3 summarize the net changes in habitat units at Lou Lake and Peanut Lake, respectively, detailed information regarding these calculations are not provided. DFO requests that a detailed summary of these Habitat Unit (HU) calculations be provided, including areas and rationales for selected habitat suitability indices (HSIs), to assist in evaluating the summaries provided in the DAR.