



301-5204 50th Avenue
Yellowknife, NT
X1A 1E2

07/16/2020

Your file *Votre référence*
12MN036

Our file *Notre référence*
12-HCAA-CA7-00007

Keith Morrison
Technical Advisor II
Nunavut Impact Review Board
PO Box 1360
Cambridge Bay, NU X0B 0C0

Via email to : info@nirb.ca

Subject: 12MN036 – Sabina Gold and Silver Corp. – Back River – Request for Comments on “Back River Project 2020 Modification Package”

Dear Keith Morrison

The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada (DFO) received your request for comments on June 29, 2020. DFO has reviewed the above modification package to answer the following NIRB questions

- a) Whether the proposed modification constitutes a significant modification to the original project as previously assessed and subsequently modified and approved by the NIRB
- b) Whether the proposed modification is consistent with the terms and conditions of the existing Project Certificate No. 007, or are changes to the Project Certificate necessary to reflect the modification; and
- c) Any matter of importance to the commenting party related to the Board’s processing of the project proposal

DFO has the following comments regarding the modification package, which speak to three different topics : increased water withdrawal in Goose Lake, the shoreline pad extension and increased water withdrawal along the Winter Ice Road (WIR) alignment.

References

- Sabina Gold & Silver Corporation. June 2020. Back River Project Modification Package, submitted to the Nunavut Impact Review Board.
- Fisheries and Oceans Canada. May 4, 2018. Letter of Advice-18-HCAA-0185, Implementation of mitigation measures to avoid and mitigate serious harm to fish

and fish habitat for the early development work activities at the Goose property for the Back River Project.

- Fisheries and Oceans Canada. December 20, 2018. Letter of Advice-18-HCAA-01626, Implementation of mitigation measures to avoid and mitigate serious harm to fish and fish habitat during the construction of the Winter Ice Road for the Back River Project
- Fisheries and Oceans Canada. November 22, 2019. Fisheries Act Authorization 12-HCAA-CA7-00007
- Fisheries and Oceans Canada. 2010. DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut.

Increased water withdrawal in Goose Lake and potential impacts to fish and fish habitat

In their modification package, Sabina Back River Gold Corporation (the Proponent) states that their modified project would require increased water withdrawal from Goose Lake. In total, the water withdrawal for the Goose property would increase by 70% from 518 000 m³ to 882 450 m³. Water withdrawal in Goose lake would go from 390 000 m³ to 608 700 m³.

Additional water withdrawal in Goose lake has the potential to affect Arctic Grayling spawning by delaying freshet at the Goose Lake outflow. In May 2018, DFO provided a Letter of Advice (LoA) to the Proponent (18-HCAA-00185) regarding the installation of 2 open bottom box culverts in Rascal Stream and increased water use in Goose Lake at an additional 297 m³ per day, or 108 405 m³ annually. The Proponent indicated that, based on their hydrological model, they are expecting the freshet to be delayed from 5 days during average year and 6 days during dry condition year and flow will cease during autumn 2 days earlier during average year and 4 days during dry condition year. This had the potential to impact Arctic Grayling access to spawning sites at the Goose Lake outflow and DFO recommended that the Proponent develop an additional monitoring plan to ensure that was not the case.

In the 2020 modification package, the increased water withdrawal from Goose Lake is 218 700 m³, more than twice the amount of the 2018 increase. This has the potential to create harmful alteration, disruption or destruction of fish habitat by further increasing the delay to freshet and potential access to spawning sites by Arctic Grayling. Accord to the Proponents hydrological models, during average conditions, flow during freshet is expected to be delayed by 6 days, increasing to 9 days in a 1/20 year dry conditions. Flow would cease 3 days early in average conditions and 6 days early in a 1/20 year dry conditions.

Although effects to Arctic Grayling Habitat could be considered a significant negative environmental effect of the project, DFO is confident these effects can be managed under sections 35(1) and 35(2)(b) the *Fisheries Act*. These provisions provide DFO with the regulatory instruments to ensure that effects to Arctic Grayling will be avoided, mitigated or offset. In addition, DFO has reviewed the Terms and Conditions (T&C) of Project

Certificate No. 007 and is confident that existing T&Cs can be used to ensure impacts to Arctic Grayling and its habitat are avoided, mitigated or offset.

Shoreline pad extension

The Proponent also proposes to expand its existing shoreline pad with a seaward expansion via the northern portion of the pad. The extension would result in a footprint of 420 m² and could result in permanent fish habitat destruction. However, regulatory mechanisms exist to offset this habitat loss and DFO does not consider this modification to be a significant modification of the existing project.

DFO suggests that the Proponent send a Request for Review for their shoreline pad expansion to initiate the review of the impacts under DFO's regulatory regime.

Increased water withdrawal along the Winter Road Alignment

Finally, the Proponent states that their project modification will require additional volumes of water to be withdrawn along the Winter Ice Road (WIR). Volumes would reach 324 000 m³ up from 108 000 m³. The Proponent identified 55 waterbodies that they could utilize for water withdrawal without residual effects to fish and fish habitat based on DFO's protocol for mitigating water withdrawal in ice-covered waterbodies in the North (DFO, 2010). According to a memo provided by Golder within the modification package, the proposed increase in water withdrawal would not result in additional measurable residual effects to fish and fish habitat than the previously approved project.

DFO does not think additional water withdrawal along the WIR is a significant modification to the original project given that the Proponent will continue to adhere to DFO guidance (DFO, 2010), has done an updated specific evaluation on water withdrawal impacts on each waterbody to be used along the WIR and will follow guidance provided in the Letter of Advice 18-HCAA-01626. This memo should be formally sent to DFO as a Request for Review to initiate the review of the impacts under DFO's regulatory regime.

In summary, DFO does not believe the proposed modification is a significant modification to the original project. Potential additional negative environmental effects resulting from the modifications can be avoided, mitigated or offset by the current regulatory instruments at DFO's disposal. DFO invites the Proponent to contact DFO to initiate discussions on the potential HADD to Arctic Grayling spawning habitat at the Goose lake outflow.

If you have any questions with the content of this letter, please contact Gabriel Bernard-Lacaille by email at Gabriel.bernard-Lacaille@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Sincerely,

Gabriel Bernard-Lacaille

Gabriel Bernard-Lacaille
Senior Biologist
Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

CC:

Edyta Ratajczyk, Biologist, Fish and Fish Habitat Protection Program
Dan Coombs, Senior Biologist, Fish and Fish Habitat Protection Program
Alasdair Beattie, Team Lead, Fish and Fish Habitat Protection Program
Matthew Pickard, Vice-President, Environment and Sustainability, Sabina