# Appendix 31

# Whale Tail 2024 Report on the Implementation of Measures to Avoid and Mitigate Serious Harm

AGNICO EAGLE

MEADOWBANK COMPLEX

WHALE TAIL MINE

# 2024 REPORT ON THE IMPLEMENTATION OF MEASURES TO AVOID AND MITIGATE SERIOUS HARM TO FISH

In Accordance with

DFO Fisheries Act Authorization 16-HCAA-00370

and

DFO Fisheries Act Authorization 20-HCAA-00275

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March, 2025

## EXECUTIVE SUMMARY

In July, 2018, and July, 2020, Agnico Eagle Mines Ltd. (Agnico Eagle) was issued Fisheries Act Authorizations (FAAs) 16-HCAA-00370 and 20-HCAA-00275 for the Whale Tail Mine.

Conditions 2.1 - 2.3 of FAA 16-HCAA-00370 and Conditions 2.1 and 2.2 of 20-HCAA-00275 describe a suite of measures and standards to avoid and mitigate impacts to fish and fish habitat that are required to be implemented while mine activities are ongoing, to ensure impacts to fish and fish habitat are limited to those authorized.

This report has been developed in fulfillment of Condition 3 of these FAAs, which indicates that Agnico Eagle will monitor the implementation of these avoidance and mitigation measures and provide a stand-alone report to DFO annually.

In fulfillment of Condition 3.1, this document summarizes the implementation of the specified measures and standards to avoid and mitigate serious harm to fish. Photos and/or figures of the mitigation measures are included, as applicable (according to Condition 3.1.3 of 16-HCAA-00370 and Condition 3.1.1 of 20-HCAA-00275), along with a commentary on effectiveness based on relevant monitoring results, and any required contingency measures in the event that the mitigation did not function successfully (according to Condition 3.1.4/3.1.2).

As required by FAA 16-HCAA-00370 Condition 3.1.1, an evaluation of the effectiveness of the FAA-listed monitoring programs (and other relevant monitoring programs) in validating changes to fish and fish habitat predicted in the Project FEIS is provided in Section 12.5.1.3 of the 2024 Meadowbank Complex Annual Report to the NIRB as a component of the Post-Environmental Assessment Monitoring Program.

In summary, all measures and standards to avoid and mitigate serious harm to fish identified in Condition 2 of FAA 16-HCAA-00370 and 20-HCAA-00275 were implemented as required in 2024 for Whale Tail Mine infrastructure and activities. The need for contingency mitigation and remedial actions was identified in relation to observed deposition of gravel/road material at bridges crossing along the WTHR (and AWAR). In these cases, the road gravel has apparently been entrained by passing vehicles and fallen through the bridge deck. Agnico Eagle has advised DFO of plans to implement corrective measures. In addition, contingency mitigation was required to be implemented in response to one blast monitoring exceedance. Otherwise, the FAA-listed and FEIS-planned mitigation measures and standards (see Appendix A) were considered effective in limiting impacts of construction activities to fish and fish habitat to those authorized.

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## SECTION 1 • INTRODUCTION

In July, 2018, and July, 2020, Agnico Eagle Mines Ltd. (Agnico Eagle) was issued Fisheries Act Authorizations (FAAs) 16-HCAA-00370 and 20-HCAA-00275 for the Whale Tail Mine. Approved fish habitat offsetting related to these FAAs is described in the *Fish Habitat Offsetting Plan for Whale Tail Pit* (March, 2018) and the *Whale Tail Pit Expansion Project - Fish Habitat Offsetting Plan* (March, 2020; amended October, 2024).

In response to Condition 3 of these FAAs, this report was developed to describe the monitoring and reporting of specified measures and standards to avoid and mitigate serious harm to fish. In particular, this report addresses Condition 3.1 of both FAAs:

**Condition 3.1:** ***The Proponent shall monitor the implementation of avoidance and mitigation measures referred to in section 2 of this authorization, and provide a stand-alone report to DFO, by March 31, annually and indicate whether the measures and standards to avoid and mitigate serious harm to fish were conducted according to the conditions of this authorization.***

In fulfillment of Condition 3.1, Section 2 of this document summarizes the implementation of the specified measures and standards to avoid and mitigate serious harm to fish, as identified in Section 2 of FAA 16-HCAA-00370 and 20-HCAA-00275. Where appropriate and available, dated photographs with GPS coordinates (or other identifiers) and inspection reports are provided or referenced, as required in FAA 16-HCAA-00370 Condition 3.1.3 and FAA 20-HCAA-00275 Condition 3.1.1.

While presented somewhat differently between the two FAAs, these measures and standards may be summarized as:

1. The Proponent shall provide detailed engineering plans to DFO for review and approval for construction works that have the potential to impact fish and fish habitat, at least 90 days prior to the commencement of the works;

2. Sediment and erosion control measures must be in place and shall be upgraded and maintained, such that release of sediment is avoided at the location of the authorized work, undertaking, or activity. And: *Before commencing any works, undertakings and/or activities that have the potential to release sediment into waters frequented by fish, the Proponent shall prepare and implement site specific sediment and erosion control plans for any near or in-water works under the guidance of a certified Professional in erosion and sediment control (CPESC or equivalent);*

3. Adherence to the *General Fish-out Protocol for Lakes and Impoundments in the Northwest Territories and Nunavut* (Tyson et al., 2011) and approved fish-out work plans;

4. Adherence to the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO, 1995) (FAA 16-HCAA-00370) or the *Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater* (https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html) (FAA 20-HCAA-00275) for any and all intake in waterbodies that support fish;

5. Development of a Blasting Mitigation Plan, which shall adhere to the guidance in *Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000 – 2002* (Cott and Hanna, 2005) and *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters* (Wright and Hopky, 1998) as modified by the DFO for use in the north;

6. Adherence to the *Protocol for Winter Water Withdrawal from Ice-Covered Waterbodies in the Northwest Territories and Nunavut* (DFO, 2010); and

7. Ensure that all project infrastructure in watercourses is designed and constructed in such a manner that it does not unduly prevent or limit the movement of water or fish species in fish bearing streams and rivers, unless otherwise authorized by Fisheries and Oceans Canada.

Section 2 of this report also provides a commentary on the effectiveness of the measures and standards, based on results of relevant monitoring programs, including those specified under Condition 2.4 of FAA 16-HCAA-00370 and Condition 2.3 of FAA 20-HCAA-00275 where applicable:

1. Most recent Core Receiving Environment Monitoring Program;

2. Most recent Water Quality and Flow Monitoring Plan;

3. Most recent Water Quality Monitoring and Management Plan for Dike Construction and Dewatering; and

4. Most recent Blast Monitoring Program.

In the event that avoidance and mitigation measures did not function properly according to monitoring results, Section 2 of this report further provides details of any contingency measures that were required to be followed to prevent further impacts (in fulfillment of FAA 16-HCAA-00370 Condition 3.1.4 and FAA 20-HCAA-00275 Condition 3.1.2).

Finally, while not included in this report, Section 12.5.1.3 of the 2024 Meadowbank Complex Annual Report to the NIRB further provides an evaluation of the effectiveness of the above-described monitoring programs (and other relevant monitoring programs) in validating changes to fish and fish habitat predicted in the Project FEIS, as required by FAA 16-HCAA-00370 Condition 3.1.1 (discussed in Section 3).

# SECTION 2 • AVOIDANCE AND MITIGATION MEASURES

A commentary on the implementation of each FAA-listed measure to avoid or mitigate serious harm to fish and fish habitat in 2024 is provided below.

## 2.1 DETAILED ENGINEERING PLANS

According to FAA 16-HCAA-00370 (Condition 2.4.1) and 20-HCAA-00275 (Condition 2.3.5), "*The Proponent shall provide detailed engineering plans to DFO for review and approval for construction works that have the potential to impact fish and fish habitat, at least 90 days prior to the commencement of the works*."

Detailed engineering plans ("design reports") for all construction works are submitted to the NWB for review at least 60 days prior to the intended construction initiation. These reports are available for DFO comment during the NWB review period, and construction is not initiated until a positive response is received from NWB. Any designs with the potential to impact waters frequented by fish are also provided directly to DFO, with at least 90 days' notice ahead of the intended construction start date.

In 2024, no construction activities were designed at the Whale Tail Mine with the potential to impact fish or fish habitat, so no design plans were required to be submitted to DFO.

## 2.2 SEDIMENT AND EROSION CONTROL

According to FAA 16-HCAA-00370 (Condition 2.2) and 20-HCAA-00275 (Condition 2.1), *"before commencing any works, undertakings and/or activities that have the potential to release sediment into waters frequented by fish, the Proponent shall prepare and implement site specific sediment and erosion control plans for any near or in-water works under the guidance of a certified Professional in erosion and sediment control (CPESC or equivalent)."*

Further: *"Sediment and erosion control measures must be in place and shall be upgraded and maintained, such that release of sediment is avoided at the location of the authorized work, undertaking, or activity."*

Section 2.2.1 below describes the preparation and implementation of any required sediment and erosion control plans. In addition, the ongoing monitoring and maintenance of sediment and erosion control measures for previously constructed water management infrastructure is described in Section 2.2.2.

### 2.2.1 Preparation and Implementation of Sediment and Erosion Control Plans

Sediment and erosion control measures for any construction work, undertaking, or activity are described in design reports that are prepared by professionals and stamped by a Professional

Engineer. Any such designs with the potential to impact waters frequented by fish are provided directly to DFO, with 90 days' notice.

During construction activities, sediment and erosion control measures are implemented for projects, as described in the Design Reports. Following the completion of construction activities, Construction Summary Reports are submitted to the NWB, and are available for DFO review. Construction Summary Reports fully describe the mitigation measures that were implemented (either according to design reports, or contingency measures as necessary) to reduce sedimentation and erosional concerns. Construction summary reports include as-built designs and photographic records (before, during, after construction).

When construction activities occur, a summary of sediment and erosion control measures is also provided here. In 2024, no construction activities were designed or conducted at the Whale Tail Mine with the potential to impact waters frequented by fish.

### 2.2.2 Maintenance of Sediment and Erosion Control Measures

Under the Freshet Action Plan and Erosion Management Plan, visual inspections of Whale Tail Mine water management infrastructure (including but not limited to bridges, culverts, ditches, Whale Tail South Channel, IVR Diversion Channel) are conducted daily to weekly by dedicated personnel starting in May to document and address any turbidity or erosional concerns, and to ensure mitigation measures in place are functioning as intended to avoid transport of sediment towards receiving environment waterbodies. The frequency of inspections depends on season and erosional potential identified.

During inspections, any erosional concerns are assessed for all locations, such as: bed erosion upstream and downstream of watercourse crossing structures, scour under bridge abutments and abutment foundations, erosion along cutslopes and fillslopes of embankments (rill and gully erosion) etc. Mitigation measures are implemented as needed to prevent erosional concerns.

Water quality monitoring for turbidity/TSS is then conducted as required based on visual observations during inspections, to inform management action and/or to comply with License conditions. When turbid water is observed in any location with potential for interaction with the receiving environment (e.g. Whale Tail Haul Road culverts) grab samples are collected and analyzed for turbidity, and at Agnico Eagle's onsite laboratory for TSS. When onsite TSS results are elevated, samples are additionally analyzed by a commercial accredited laboratory, and results exceeding 30 mg/L are reported to appropriate regulators.

For some constructed non-contact water management infrastructure (IVR Diversion Channel, Whale Tail South (WTS) Channel), sampling is conducted on a regular schedule, according to NWB Water License requirements, with analysis by an accredited laboratory. TSS limits apply for the WTS and IVR Channels. Any discharge to the receiving environment exceeding license limits (30 mg/L in a grab sample) is reported to the appropriate regulators.

For Whale Tail Haul Road infrastructure (culverts, bridges), no erosion or turbidity concerns were identified during daily to weekly inspections in 2024, no water quality samples were required to be collected, and no contingency mitigation measures (e.g. straw booms or woodchip booms) were required to be installed.

For Whale Tail Mine onsite infrastructure (e.g. sumps, ponds, ditches, culverts, areas of recent construction), no major erosional or turbidity concerns were observed requiring management action. Water quality samples were collected monthly during open water from the WRSF Pond, WTS Channel, and IVR Diversion Channel. All results for the Whale Tail South Channel and IVR Diversion Channel were below NWB Water License limits for TSS (30 mg/L grab, 15 mg/L for the monthly mean).

Historically, overland flow across the emulsion plant road, near the Mammoth Dike, has presented potential for erosional concerns that could lead to sediment release towards Kangislulik Lake. In 2020, culverts were installed to manage ponding overland flow during freshet. Culverts became blocked with snow and ice, causing meltwater to flow over the road during freshet. Since 2022, mitigation measures for this issue have included installing plywood covers and/or prioritizing snow and ice removal prior to freshet at the culvert inlet and outlet. In 2024, no water flow over the road was recorded. A low level of turbidity in meltwater flowing through the culverts was visually identified at the beginning of the freshet. To avoid transportation of sediment to Kangislulik Lake (located approx. 50 – 100 m downslope, to the north), woodchip booms were again installed on the downstream side of the road, where required (culvert 1). In all cases, water was visually clear before it reached Kangislulik Lake.

Results of receiving environment TSS monitoring in the nearest downstream waterbody (Kangislulik Lake (KAN)) were reviewed in the context of this report to confirm the success of these measures. As shown in Figure 1, TSS remained below the CREMP trigger value in Kangislulik Lake throughout 2024.

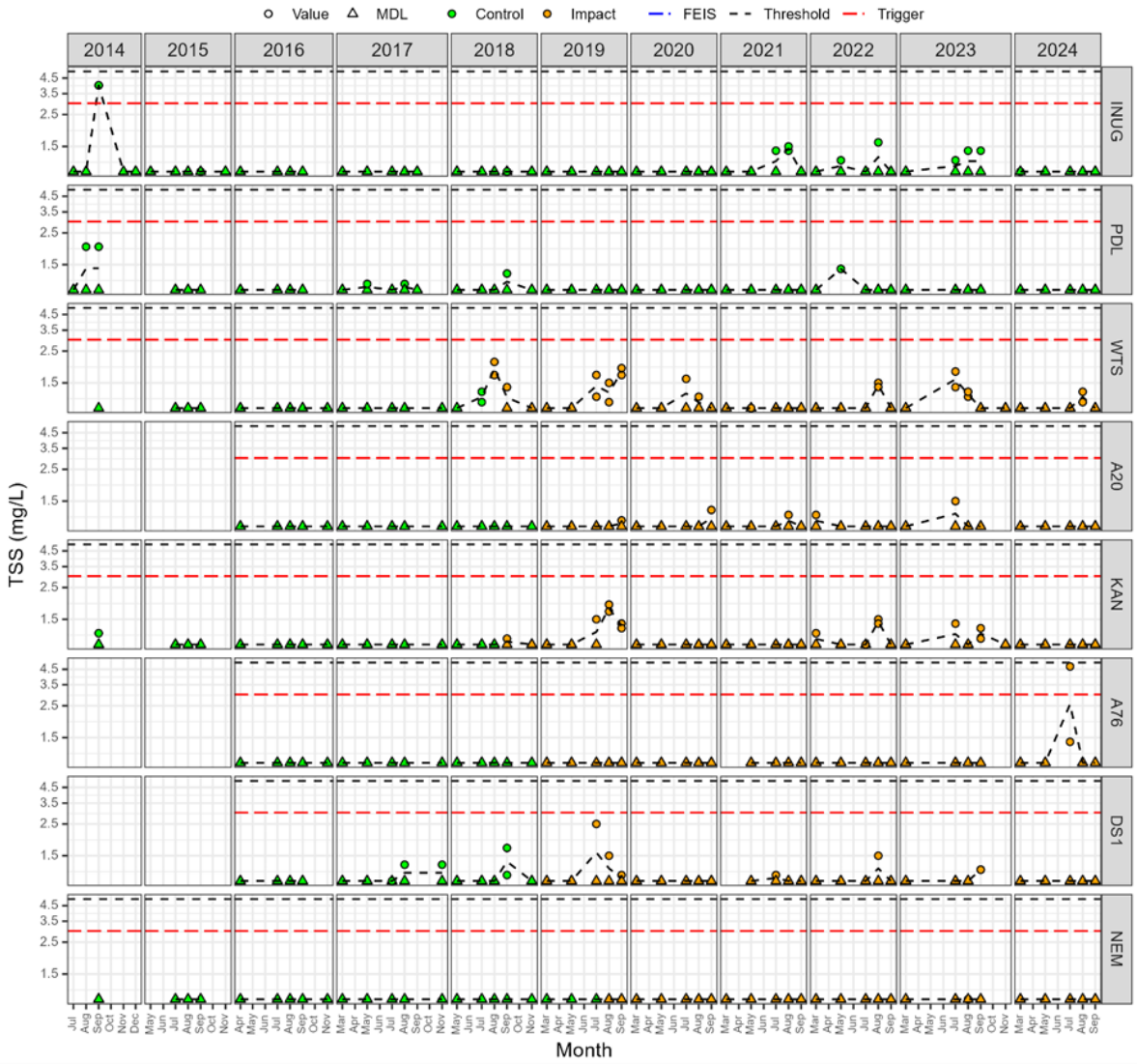


**Figure 1. Measured concentrations of TSS in Whale Tail area lakes (from the 2024 Core Receiving Environment Monitoring Report).**

## 2.3 ADHERENCE TO THE FISH-OUT PROTOCOL AND APPROVED FISH-OUT WORK PLANS

In accordance with the FAAs, Agnico Eagle adhered to the Fish-out Protocol for Lakes and Impoundments in the Northwest Territories and Nunavut (Tyson et al., 2011) and approved fish-out work plans for the Whale Tail Mine when fish-outs of Whale Tail Lake (North Basin) and the IVR area waterbodies were conducted in 2018 and 2020 (see previous versions of this report). Fish-outs were conducted in regular contact with DFO, and reports on fish-out activities were made available to DFO and also provided in the 2018 and 2020 Annual Report to the NIRB.

No fish-outs have occurred at the Whale Tail Mine since 2020.

## 2.4 ADHERENCE TO FRESHWATER INTAKE END-OF-PIPE FISH SCREEN GUIDELINES

In accordance with the Fisheries Act Authorizations, Agnico Eagle adheres to the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO, 1995) or the *Interim Code of Practice: End-of-Pipe Fish Protection Screens for Small Water Intakes in Freshwater* (https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html) for any and all intakes in waterbodies that support fish.

No new freshwater intakes in fish-bearing waterbodies were installed in 2024. The only operating freshwater intake in a fish-bearing waterway was the Nemo Lake intake. Construction of this intake occurred in 2018 and has been previously reported.

## 2.5 DEVELOPMENT OF A BLASTING MITIGATION PLAN

In accordance with Condition 2.3.3 of FAA 16-HCAA-00370 and Condition 2.2.3 of FAA 20-HCAA-00275, Agnico Eagle has developed a Blast Monitoring Program ( that adheres to the guidance in the document “Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000 – 2002” (Cott and Hanna, 2005) and “Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters” (Wright and Hopky, 1998) as modified by the DFO for use in the north.

A report on blast monitoring according to the Blast Monitoring Program is provided every year in the Meadowbank Complex Annual Report to the NIRB. Every blast is monitored with an Instantel Minimate Blaster to ensure that vibrations generated by blasting (peak particle velocity; PPV) are less than 13 mm/sec and the overpressure (instantaneous pressure change; IPC) is under 50 KPa at the nearest fish-bearing waterbody (on recommendation of DFO). The results of blast monitoring are systematically analyzed by the Engineering Department within 24 hours following the blasting operation. The blast monitoring results are interpreted and a blast mitigation plan is implemented immediately if the PPV or the IPC exceed the aforementioned guidelines. Further, Agnico Eagle will develop and submit specific

blast monitoring plan to DFO regarding monitoring and mitigation for blasting activity that occurs outside the limits of the current Blast Monitoring Program. None were required in 2024 for the Whale Tail Mine.

Based on comments from DFO received during the November 2022 meeting in review of the 2021 Report on the Implementation of Measures to Avoid and Mitigate Serious Harm to Fish (March, 2022), a historical summary of blast monitoring and mitigation for the Whale Tail Mine was provided and discussed in that report, for reference.

In 2024, 80 blasts occurred and were monitored at the IVR pit. No blasts exceeded the peak particle velocity (PPV) limit of 13 mm/s or the instantaneous pressure change (IPC) limit of 50kPa. For the Whale Tail Pit, 146 blasts were monitored and none exceeded PPV or IPC limits. An additional nine blasts for the underground mine were monitored. One exceeded the PPV limit (May 20, 2024) and none exceeded the IPC limit. This is the first instance of an underground blast vibration exceedance recorded at the surface. DFO was notified by email (May 23) regarding the exceedance, investigation, and corrective measures to be implemented, consisted of:

- Integration of underground blast vibration data to the surface theorical model to help estimate underground blast vibration.
- Third party assessment of underground drill and blast parameters to evaluate potential vibration reduction.
- No underground stope blasting activities west of stope 320-ST-188 until analysis is completed and mitigation actions are put in place.

Further to the above corrective measures, the Drill and Blast department works to continually improve blast mitigation measures, and the following work standards were improved or implemented in 2024:

- Install a permanent blast monitoring station.
- Recalibrated vibration model with 2024 monitored data.
- Reduced maximum charge per delay in geological sensitive areas.
- Optimized maximum charge per delay for overlapping shockwaves of Underground blasts.

**Table 1. Instances of PPV and IPC measurements exceeding DFO limits at the Whale Tail Mine from 2018 to 2024.**

| Year | PPV Measurements > 13 mm/s | IPC Measurements > 50 kPa |
|---|---|---|
| 2018 | 2 | 0 |
| 2019 | 8 | 0 |
| 2020 | 4 | 0 |
| 2021 | 0 | 0 |
| 2022 | 2 | 0 |
| 2023 | 0 | 0 |
| 2024 | 1 | 0 |

## 2.6 ADHERENCE TO THE PROTOCOL FOR WINTER WATER WITHDRAWAL

In 2024, under-ice water withdrawal occurred for the freshwater intake from Nemo Lake only. Withdrawal volumes conformed with the *Protocol for Winter Water Withdrawal from Ice-Covered Waterbodies in the Northwest Territories and Nunavut* (DFO, 2010) – i.e. total under-ice withdrawal did not exceed 10% of the available water volume.

As described in Agnico Eagle's response to DFO's Technical Comment 2.2.2 on the Whale Tail Pit Expansion Project Water License Amendment application (October 7, 2019), the available under-ice volume of Nemo Lake was calculated as 6,169,226 $m^3$.

Conservatively, water withdrawals from September through June are assumed here to have occurred under ice. Estimated total under-ice water withdrawal from Nemo Lake for the winter of 2023-2024 was 93,899 $m^3$, which is less than 10% of the available under-ice volume (10% of 6,169,226 $m^3$ = 616,923 $m^3$).

## 2.7 PROJECT INFRASTRUCTURE IN WATERCOURSES

In accordance with the FAAs, Agnico Eagle will ensure that all project infrastructure in watercourses is designed and constructed in such a manner that it does not unduly prevent or limit the movement of water or fish species in fish bearing streams and rivers, unless otherwise authorized by Fisheries and Oceans Canada.

Further, as described in Section 2.1, Agnico Eagle will provide detailed engineering plans to DFO for review and approval for construction works that have the potential to impact fish and fish habitat, at least 90 days prior to the commencement of the works.

In 2024, no project infrastructure was designed or constructed in any fish-bearing stream or river. However, in October 2024, DFO advised Agnico Eagle that ongoing deposition of road material and/or gravel had been observed at bridge crossings along the WTHR (and AWAR).

This material is apparently entrained by passing vehicles and falling through openings in the bridge deck. In response, Agnico Eagle has advised DFO on November 29, 2024 that debris control measures will be installed at bridge crossing, and plans will then be developed to remove all recoverable gravel at impacted bridges. This program will be designed in consultation with DFO to ensure no unintended impact on fish and fish habitat during remedial activities. Photographic records of the corrective measures will be provided to DFO.

## SECTION 3 • VALIDATION OF FEIS-PREDICTED IMPACTS

In accordance with Condition 3.1.1 of DFO Authorization 16H-CAA-00370 and following Agnico Eagle's discussions with DFO and KivIA in October 2021 on the content of this report, a review of FEIS-predicted impacts to fish and fish habitat is provided in Section 12.5.1.3 of the 2024 Meadowbank Complex Annual Report to the NIRB as a component of the Post-Environmental Assessment Monitoring Program. This approach was proposed in an effort to reduce redundancy in reporting and better focus this report on the implementation and effectiveness of the DFO specified avoidance and mitigation measures, as listed in Section 2 of the FAAs. It is noted that validation of FEIS predictions is not a condition of the DFO FAA for the Whale Tail Pit Expansion Project (20-HCAA-00275) but nevertheless the PEAMP evaluation includes the relevant assessment of predictions for that Project phase.

In keeping with Condition 3.1.1 of 16-HCAA-00370, the purpose of the PEAMP evaluation is to:

1. Summarize predicted residual impacts to fish and fish habitat valued components (VCs).

2. For each prediction, present historical and current-year results from relevant monitoring programs.

3. When current monitoring results do not support an impact prediction (i.e. current-year measured impacts are outside of the range of predicted impacts), a trend analysis is conducted to review baseline and all monitoring data to date. A discussion of those results is provided.

4. Previously reported trend analyses are updated, regardless of current year monitoring results. In this way, discussions and trend analyses will be presented in the PEAMP moving forward for all instances where impact predictions have historically been exceeded on one or more occasions.

5. Effectiveness of the monitoring programs at assessing impact predictions is discussed. A summary of the FEIS-planned mitigation measures for each VC is provided, along with a description of implementation in the current monitoring year.

Where monitoring results indicate that impact predictions can no longer be supported, a description will be provided of the proposed adaptive management approaches.

## SECTION 4 • SUMMARY

As described in Section 2 of this report, all of the measures and standards to avoid and mitigate serious harm to fish identified in Section 2 of FAA 16-HCAA-00370 and 20-HCAA-00275 were implemented as required in 2024 for Whale Tail Mine infrastructure and activities.

Contingency mitigation measures and remedial actions were identified to be required for Whale Tail Haul Road (and AWAR) bridge locations where ongoing deposition of gravel and/or road material into watercourses was observed. In addition, corrective measures (contingency mitigation) were implemented in response to one blast monitoring exceedance for the underground mine.

Otherwise, mitigation measures implemented as part of the Project (Appendix A) and as specified by DFO in Section 2 of the FAAs were considered effective in limiting impacts on fish and fish habitat to those authorized.

Further validation of all FEIS-predicted impacts is discussed in Section 12.5.1.3 of the 2024 Meadowbank Complex Annual Report to the NIRB as a component of the Post-Environmental Assessment Monitoring Program, using current-year and historical monitoring results from all relevant programs.

## REFERENCES

Cott P., and B. Hanna. 2005. Monitoring explosive-based winter seismic exploration in waterbodies, NWT 2000 2002. In Offshore Oil and Gas Environmental Effects Monitoring: Approaches and Technologies, edited by S.L. Armsworthy, P.J. Cranford, and K. Lee, 473-490. Columbus: Batelle Press.

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# APPENDIX A

## Summary of FEIS-Designed Mitigation Measures

A complete list of the Project's mitigation measures related to fish and fish habitat, as designed in the FEIS is provided in Table A-1, along with a commentary on implementation in 2024.

**Table A- 1. Mitigation measures described in the FEIS Addendum (Agnico Eagle, 2018; Table 3-C-7) to reduce impacts of the project to fish and fish habitat, and commentary on current implementation.**

| Project Activity | Planned Mitigation Measure (FEIS Addendum, Table 3-C-7) | Implementation (2024) |
|---|---|---|
| Mine infrastructure footprint | Best management practices for erosion and sedimentation control (e.g., ground cover, silt fences and curtains, runoff management), where needed. | **Yes** – Freshet Action Plan |
| Site water management (road infrastructure) and Whale Tail Haul Road operation | Where possible, in-stream works will be constructed in winter when watercourses are frozen. In-stream works will be conducted according to DFO timing windows to avoid critical periods for fish. | **N/A -** no construction in fish-bearing watercourses occurred |
| | Mining staff will not be allowed to hunt or fish while on their work rotation; Agnico Eagle will develop and enforce "no hunting, trapping, harvesting or fishing policy" for employees and contractors, which will be consistent with the Meadowbank Mine. | **Yes** |
| | Watercourses will be inspected upstream and downstream of the crossings for, erosion, scour, and flow blockages | **Yes** – Road Inspection |
| | Regular inspection of the road to identify any areas where ponding of water along the road represents a risk, and installing additional culverts or drains to alleviate risk, where required. | **Yes** – Road Inspection |
| | Rock aprons at culvert inlets and outlets will provide erosion protection and prevent localized erosion from concentrated high velocity flows above the peak 1:10 year rainfall event. | **Yes** – Road Inspection |
| | Use of staggered culvert configuration, and removal of snow at the culvert inlet and outlet prior to the freshet to promote drainage and increased conveyance of flow during spring thaw and freshet. | **Yes** – Road Inspection |
| Earthworks: Drilling, blasting and excavation (includes Quarry/Borrow Pit) and Crushing activities | Only the required amount of explosive will be used as necessary for the amount of rock or borrow material to be blasted | **Yes** – Blast Monitoring Program |
| | Applicable guidelines for set-back distances and quantities of explosives will be followed. | **Yes** – Blast Monitoring Program |
| | Where possible, stockpiling of rock and fill from quarries and borrow sites will be placed such that surface water is not diverted through the piles with runoff to surface waterbodies; drainage from quarries will not flow directly into any waterbodies or watercourses. | **Yes** - Mine Waste Rock Management Plan |
| | Borrow and rock quarry activity will be at least 31 m from the high water mark of any waterbody | **Yes** - Mine Waste Rock Management Plan, Whale Tail Haul Road Management Plan |
| | Borrow pits and quarry will be excavated and sloped for positive drainage | **Yes** - Mine Waste Rock Management Plan, Whale Tail Haul Road Management Plan |
| | Quarries will be inspected on a regular basis to monitor water ponding, particularly at spring melt. | **Yes** - Mine Waste Rock Management Plan, Road |

| **Project Activity** | **Planned Mitigation Measure** (FEIS Addendum, Table 3-C-7) | **Implementation (2024)** |
|---|---|---|
| | | Inspections, Freshet Action Plan |
| | Drainage from borrow pits and quarry will not flow directly into any waterbodies or watercourses. | **Yes** - Mine Waste Rock Management Plan, Whale Tail Haul Road Management Plan |
| | When there is ponded water in the rock quarry or borrow pits that could enter a waterbody or watercourse, a water quality sample will be collected and analyzed, and the results used to determine appropriate mitigation measures (e.g., prevent runoff from entering waterbody or watercourse). | **Yes** - Mine Waste Rock Management Plan, Whale Tail Haul Road Management Plan |
| | To avoid and mitigate Serious Harm to Fish, Agnico Eagle will continue to adhere to blasting requirements and will continue to use practices consistent with those used at the Meadowbank Mine. Agnico Eagle will engage with DFO, when required. | **Yes** – Blast Monitoring Program |
| | Use of non-acid generating material at watercourse crossings; testing will verify lack of acid rock drainage and metal leaching potential. | **Yes** - Mine Waste Rock Management Plan |
| | Any PAG or high metal leaching waste rock will be segregated at source and placed into designated areas within the waste rock storage facilities. | **Yes** - Mine Waste Rock Management Plan |
| General Construction /Decommissioning Activities | Best management practices for erosion and sedimentation control (e.g., silt curtains, runoff management, armouring of banks), where needed to limit disturbance to lakes and streams. | **Yes** Freshet Action Plan, Erosion Management Plan, site inspections |
| | In-stream works will be in winter, when possible, to avoid increased TSS and turbidity, and changes to water quality | **Yes** |
| | Where applicable, runoff from construction / decommissioning activities will be captured and managed to minimize suspended solids (e.g., discharged into an attenuation pond to settle out suspended sediments) | **Yes** – Design report |
| | Where possible, in-stream works will be constructed in winter when watercourses are frozen. In-stream works will be conducted according to DFO timing windows to avoid critical periods for fish. | **Yes** |
| | Bridge abutment installation will span majority of the active channel (i.e., outside of the high-water mark), and if feasible, construction will occur in winter | **N/A** – No bridge installation occurred |
| | Disturbed areas along the streambanks will be stabilized and allowed to revegetate upon completion of work | **Yes** – Streambanks allowed to revegetate |
| Site Water Management | A Surface Water Management Plan will be implemented | **Yes** – Water Management Plan |
| Dike Construction / Decommissioning causing release of sediment | Use of the Dewatering Dikes, Operations, Maintenance and Surveillance Manual developed by Agnico Eagle. | **N/A** – no dike construction or decommissioning occurred |
| | Best management practices for erosion and sedimentation control (e.g., ground cover, silt fences and curtains, runoff management), where needed. | **N/A** – no dike construction or decommissioning occurred |
| | During summer construction, turbidity curtains will be installed near the portion of the alignment where dike construction will occur, which is an approach demonstrated at other northern mining projects | **N/A** – no dike construction or decommissioning occurred |

| **Project Activity** | **Planned Mitigation Measure** (FEIS Addendum, Table 3-C-7) | **Implementation (2024)** |
|---|---|---|
| | Non- potentially acid generating, chemically inert material (i.e., granite) will be used to construct the dike to prevent leaching of metals into water. | **N/A** – no dike construction or decommissioning occurred |
| | Turbidity monitoring will be conducted at designated locations throughout open water and under-ice conditions, within and outside of the zone of the turbidity curtains. In the event that TSS concentrations approach monitoring thresholds, a review of local conditions and activities will be conducted. | **N/A** – no dike construction or decommissioning occurred |
| General mining activities and use of vehicles causing fugitive dust & other air emissions | Implement dust control measures, if needed on mine roads. | **Yes** – Air Quality and Dustfall Monitoring Plan |
| | Equipment and vehicles will comply with relevant non-road emission criteria at the time of purchase | **Yes** |
| | Enforcing speed limits (maximum speed 50 km/h) to suppress dust production. | **Yes** – Whale Tail Haul Road Management Plan, Road logs |
| | If deemed necessary through monitoring, dust from roads will be managed through use of dust suppressant | **Yes** – Air Quality and Dustfall Monitoring Plan |
| | The running surface of the road will be maintained thereby reducing the generation of dust. | **Yes** – Air Quality and Dustfall Monitoring Plan, Road maintenance |
| | Adherence to the Air Quality and Dustfall Monitoring Plan | **Yes** – Air Quality and Dustfall Monitoring Plan |
| | Most personnel arriving at or leaving the site will be transported by bus, thereby reducing the amount of traffic (and dust). | **Yes** |
| | Adherence to water quality monitoring and adaptive management in the CREMP to detect changes in water quality | **Yes** - CREMP |
| | Construction equipment and trucks will be equipped with industry-standard emission control systems. | **Yes** |
| | Compliance with regulatory emission requirements will be met. | **Yes** |
| | Exhaust emissions from non-road vehicles will be managed through regular and routine maintenance of vehicles | **Yes** – Maintenance logs |
| | $SO_2$ emissions from non-road vehicles and stationary equipment will be reduced through the use of low emission diesel fuel. | **Yes** |
| Waste Rock Storage Areas and Stockpiles | A Water Management Plan has been developed and describes the containment and management of contact water on-site. | **Yes** – Water Management Plan |
| | Contact water will be monitored and managed through the Storage and Attenuation Ponds. The IVR Diversion will divert clean runoff from the upper watershed of the IVR Pit to the Nemo Lake watershed. | **Yes** – Water Management Plan |
| | Seepage will be captured at sumps and diverted to the Attenuation Pond. | **Yes** – Water Management Plan |
| | Facility discharge water will be monitored for water quality, and treated as required, prior to discharge | **Yes** – Water Management Plan |
| | Performance of the dikes will be monitored throughout their construction and operating life. | **Yes** – Water Management Infrastructure OMS |

| **Project Activity** | **Planned Mitigation Measure** (FEIS Addendum, Table 3-C-7) | **Implementation (2024)** |
|---|---|---|
| Site Water Management | Manage pumping rates so total annual discharge from Whale Tail and Nemo Lake does not drop below the 10-year dry condition | **Yes** – Water Management Plan |
| | Water withdrawal rate(s) will be controlled to avoid effects on the source water lake(s). | **Yes** – Water Management Plan |
| | Capture and reuse site water to reduce freshwater requirements | **Yes** – Water Management Plan |
| | Pumped water from the dewatered lakes will be directed through properly designed structures to prevent erosion in the receiving waterbodies | **Yes** – Water Management Plan |
| | Pumped discharge will be directed to the lake environment, and not directly to outlets, to attenuate flow changes | **Yes** – Water Management Plan |
| | Best management practices for erosion and sedimentation control (e.g., silt curtains, runoff management, armouring of banks, sloping of banks), where needed | **Yes** – Water Management Plan |
| | Water Management Plan will be implemented | **Yes** – Water Management Plan |
| | A fish-out of the diked area of Whale Tail and Mammoth lakes, and smaller waterbodies in the northeast area for the Expansion Project, will be conducted before and during dewatering phase; the fish-out plan will be designed and implemented in consultation with DFO and local Inuit communities, and will consider recommendations in Tyson et al. (2011). | **N/A** - fish-out complete |
| | Appropriately sized fish screens, which meet DFO guidelines, will be fitted to pumps to limit fish access and to limit fish entrained to the smaller species and life stages | **Yes** |
| | Runoff and seepage from the Project site will be diverted to sumps and the attenuation pond (and treated if required) prior to release. | **Yes** – Water Management Plan |
| | Water quality in attenuation ponds will be monitored and managed such that the discharge meets discharge limits. | **Yes** – Water Quality and Flow Monitoring Plan |
| | Potential acid generating rock and metal leaching waste rock will be segregated at source and placed into designated areas within waste rock locations | **Yes** - Mine Waste Rock Management Plan |
| Fuel Storage and use (includes Chemical and Hazardous material Storage and Explosives Storage Area) | The Spill Contingency Plan will be implemented, including ready access to an emergency spill clean-up kit for cleaning up any spills | **Yes** - Spill Contingency Plan |
| | Hazardous materials and fuel will be stored according to regulatory requirements to protect the environment and workers and will be stored at the Meadowbank Mine. | **Yes** – Hazardous Management Plan |
| | Storage tanks (e.g., fuel, engine oil, hydraulic oil, and waste oil and coolant) will be double walled, or located in lined and bermed containment areas | **Yes** – Hazardous Management Plan |
| | Hazardous wastes will be temporarily stored at Whale Tail Pit site and then transported to the Meadowbank Mine in appropriate containers to prevent exposure until they are shipped off site to an approved facility | **Yes** – Hazardous Management Plan |
| | Individuals working on site and handling hazardous materials will have appropriate training (e.g. WHMIS) | **Yes** – Hazardous Management Plan |
| | Soils from petroleum spill areas will be deposited at the Meadowbank Mine Landfarm | **Yes** – Landfarm Management Plan |
| | Equipment will be re-fueled, serviced, or washed away from the watercourse crossings. | **Yes** – Best practices |

| **Project Activity** | **Planned Mitigation Measure** (FEIS Addendum, Table 3-C-7) | **Implementation (2024)** |
|---|---|---|
| | Fuel, lubricants, hydraulic fluids, and other chemicals will be stored at least 31 m away from the high water mark of any waterbody. | **Yes** – Weekly Inspection |
| | Construction equipment will be regularly maintained | **Yes** – Maintenance Logs |
| | Emergency spill kits will be available wherever toxic materials or fuel are stored and transferred | **Yes** – Spill Contingency Plan |
| | Enforced speed limits | **Yes** |
| Mining Activities and Water Management – effluent release | Adherence to Water Management Plan | **Yes** – Water Management Plan |
| | Runoff and seepage from the Project site will be diverted to sumps and the attenuation pond | **Yes** – Water Management Plan |
| | Treated sewage will be piped to the attenuation pond | **Yes** - Completed |
| | Water quality in Attenuation Ponds will be monitored and managed such that the discharge entering Mammoth Lake, Whale Tail Lake, or the alternative discharge locations (Lake 1 or Lake 5) meets discharge limits. If water quality does not meet discharge limits, it will be circulated and re-treated. | **Yes** – Water Management Plan, Water Quality and Flow Monitoring Plan |