



NUNAVUT WATER BOARD

**WATER LICENCE NOS: 2AM-WTP1826 and 2AM-
MEA1525**

**REASONS FOR DECISION
INCLUDING RECORD OF PROCEEDINGS**



NUNAVUT WATER BOARD

In the Matter of:

Applicant: Agnico Eagle Mines Limited

Subject: Application for a new Type “A” Water Licence 2AM-WTP1826 and for consequential Amendments to Type “A” Water Licence 2AM-MEA1525

Date: May 29, 2018

Precedence: Where there is any inconsistency or conflict between *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*, the *Nunavut Agreement* prevails to the extent of the inconsistency or conflict. Where there is any inconsistency or conflict between the *NWNSRTA* and any other act of Parliament, except the *Nunavut Land Claims Agreement Act*, the *NWNSRTA* prevails to the extent of the inconsistency or conflict.



RECORD OF PROCEEDINGS

Applicant: Agnico Eagle Mines Limited

Address: Suite 400, 145 King Street East
Toronto, ON M5C 2Y7

Purpose: Application for a New Type “A” Water
Licence 2AM-WTP1826 and
consequential Amendments to Type “A”
Water Licence 2AM-MEA1525

Original Application
for Amendment to
2AM-MEA1525: July 8, 2016

Application
Received from: Agnico Eagle Mines Limited –
Meadowbank Mines Division

Dates of Public
Hearing: September 26 and 27, 2017

Date Public Hearing
Record Closed: April 4, 2018

**ATTENDEES:****NWB****Representatives:**

NWB Panel P17 (Whale Tail Pit) Members:	Vice Chairman (at time of Public Hearing) and Panel Chairman Member Member	L. Toomasie R. Mrazek A. Ningark
Nunavut Water Board Staff:	Executive Director Director Technical Services Director of Board Administration and Communication Acting Manager of Licensing and Senior Technical Advisor Licensing Administrator Legal Counsel (Meadows Law)	S. Autut D. Hohnstein B. Kogvik K. Kharatyan R. Dwyer T. Meadows
Nunavut Impact Review Board:	Manager of Impact Assessment Assistant Technical Advisor	S. Granchinho W. Nicoll
Interpreters:	Inuktitut Inuktitut	B. Kogvik A. Alooq
Court Reporter:	Dicta Court Reporting, Inc.	E. Royal, CSR(A)
Sound Technician	W. Nicoll (Nunavut Impact Review Board)	

Applicant:

Agnico Eagle Mines Limited:	Environmental Superintendent Whale Tail Project Lead General Supervisor, Environment Geotechnical Coordinator Community Coordinator Consultant (Golder Associates) Consultant (Golder Associates) Consultant (Golder Associates) Legal Counsel (Lawson Lundell)	J. Quesnel R. Vanengen E. Voyer M. Groleau C. Ramcharan V. Bertrand M. Julien C. Prather C. Kowbel
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Parties:

Interveners:

Kivalliq Inuit Association	Director of Lands	L. Manzo
	IIBA Coordinator/Lands Inspector	J. Hart
	Land Use Inspector	J. Tulugak
	Consultant (Geology and Mining Development)	A. Sexton
All Federal Interveners	Legal Counsel (Department of Justice)	S. Gruda-Dolbec
Environment and Climate Change Canada	Senior Environmental Assessment Coordinator	M. Pinto
	Water Quality Experts Support	T. Auser
Fisheries and Oceans Canada	Senior Fisheries Protection Biologist	M. D'Aguiar
	Fisheries Protection Biologist	L. Watkinson
Indigenous and Northern Affairs Canada	Director, Resource Management	K. Costello
	Regional Coordinator, Water Resources	I. Parsons
	Water Policy Analyst	A. Belanger
	Consultant (ARCADIS Canada Inc.)	T. Brown
Written Record of Submissions:	Available from the Board's public registry using the following link: ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP---%20Agnico/2%20ADMIN/3%20SUBMISSIONS/	



Hearing Record
(including Hearing
Transcript):

Available from the Board's public registry using the following
link:

[ftp://ftp.nwb-
oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-
%20Mining/2AM-WTP----
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ABBREVIATIONS

Short Form	Full Name
Agnico Eagle	Agnico Eagle Mines Limited
CIRNA	Crown-Indigenous Relations and Northern Affairs (formerly Minister of INAC)
DFO	Fisheries and Oceans Canada
DIO	Designated Inuit Organization
ECCC	Environment and Climate Change Canada
INAC	Indigenous and Northern Affairs Canada
KIA or KivIA	Kivalliq Inuit Association
MMER	<i>Metal Mining Effluent Regulations</i>
NIRB	Nunavut Impact Review Board
<i>Nunavut Agreement</i>	<i>The Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada</i>
NPC	Nunavut Planning Commission
<i>NuPPAA</i>	<i>Nunavut Planning and Project Assessment Act</i>
NWNSRTA	<i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i>
NWB	Nunavut Water Board
NWR	<i>Nunavut Waters Regulations</i>
PHC	Pre-Hearing Conference
PH	Public Hearing
RIO	Regional Inuit Association
TM	Technical Meeting

REASONS FOR DECISION

Executive Summary

This decision is in relation to an application submitted by Agnico Eagle Mines Limited (the Applicant or Agnico Eagle) to the Nunavut Water Board (NWB or Board), for a new Type “A” Water Licence to authorize the use of water and deposit of waste associated with a new gold Mining undertaking¹ to be located at the Whale Tail Pit Project site (the Whale Tail Pit). Reflecting that the mill and mining infrastructure at the existing Meadowbank Gold Mine would be used to process the ore from the Whale Tail Pit mine site, the application also requested consequential amendments to the existing Type “A” Water Licence No.: 2AM-

¹ As defined under Schedule 1, Item 2 of the *Nunavut Waters Regulations*, SOR/2013-69 to be an undertaking involving::

Exploration or prospecting — including bulk sampling — for minerals other than petroleum or gas, the operation of a mine, the processing of minerals other than petroleum or gas, the restoration of the site of a mine and any other mining activity other than an industrial activity described in item 1, column 2.



MEA1525 for the Meadowbank Mine. As discussed by the parties during the Pre-Hearing Conference for these matters, as the request for a new Type “A” Water Licence and the amendment of the existing Licence No.: 2AM-MEA1525 are in relation to a single project, the NWB has processed the two requests together as a single application (collectively referred to as the Application).

The Application requests that the new Type “A” Water Licence be granted for a term of 8 years to develop the Whale Tail Pit Project using open-pit mining at the Whale Tail Pit gold deposit. The Whale Tail Pit is located approximately 150 kilometres (km) north of the Hamlet of Baker Lake and approximately 50 kilometres (km) northwest of the Meadowbank Gold Mine site, within the Kivalliq Region of Nunavut. The application received by the NWB on July 8, 2016 originally requested only an amendment to the existing Meadowbank Water Licence to authorize these activities.

Subsequently in October 2016, the NWB directed that for various reasons, including the distance between the Whale Tail Pit and the Meadowbank Mine, the fact that the assessment of the effects of the Whale Tail Pit Project was conducted under a separate Nunavut Impact Review Board Review, and that the Whale Tail Pit is located in a different water management area than the Meadowbank Mine, the Applicant should submit an application for a new Type “A” Water Licence specific to the Whale Tail Pit and an application to amend the existing Meadowbank Water Licence. Agnico Eagle subsequently confirmed that the materials submitted should be considered by the Board as an application for a new Type “A” Water Licence at the Whale Tail Pit and an application for consequential amendments to the existing Meadowbank Mine Water Licence 2AM-MEA1525 to reflect the additional activities at the Meadowbank Mine site in support of mining at the Whale Tail Pit.

In terms of pre-licensing requirements, the Nunavut Planning Commission found the Whale Tail Pit Project Proposal to be in conformity with the Keewatin Regional Land Use Plan on June 17, 2016. The NWB participated in a coordinated process with the Nunavut Impact Review Board’s (NIRB) Review of the potential ecosystemic and socio-economic impacts associated with the proposed Project, including conducting joint NIRB/NWB Technical Meetings and a Pre-Hearing Conference and conducting the NWB’s Public Hearing for the Application immediately following the conclusion of the NIRB’s Final Hearing for the Project. On November 6, 2017, the NIRB released its Final Hearing Report and recommended the Whale Tail Pit Project be allowed to proceed to the permitting stage. On February 15, 2018 the Minister of Crown-Indigenous Relations and Northern Affairs (CIRNA, formerly Minister of INAC) accepted the NIRB’s recommendations, and the Whale Tail Pit Project Proposal was authorized to proceed. On March 15, 2018, the NIRB issued Project Certificate [No. 008] to the Whale Tail Pit Project.



Key steps in the NWB's specific processing of the Application included:

- providing Notice of the Application;
- conducting a completeness check;
- conducting a technical review, including requesting technical review comments from interveners and any interested members of the public;
- jointly hosting with the NIRB, a Technical Meeting and Pre-hearing Conference held in person in the nearest community, Baker Lake, Nunavut, on April 28-29 and May 1-2, 2018, which included a Community Session on the evening of April 27, 2018;
- publishing notice of the NWB's Public Hearing on July 17, 2017; and
- conducting an in person Public Hearing for the file on September 26-27, 2018, in Baker Lake, immediately following the NIRB Final Hearing for the Whale Tail Project, in Baker Lake. As part of the Public Hearing, a Community Session was hosted by the NWB on the evening of September 26, 2017, with residents of Baker Lake in attendance.²

At the conclusion of the Public Hearing, the NWB's decision-making Panel for the file (Panel P17 or Whale Tail Pit Panel) indicated that because the impact assessment process for the Whale Tail Pit Project was not yet completed, the NWB was required to keep the Public Hearing Record open in order to allow the KIA, DFO, ECCC and INAC to file additional written materials that may be necessary to address the outcome of the impact assessment process. In February 2018, following the Minister's approval of the NIRB's recommendation that the Project be allowed to proceed, the NWB gave all parties and the public a final opportunity to comment before the NWB closed the Public Hearing Record for the file. Following the Board's receipt and review of the additional submissions, the Panel P17 issued its decision to close the Public Hearing Record for the Application on April 4, 2018 and remitted the file to the Whale Tail Pit Panel for decision-making.

On the basis of:

- the information provided with the Application by Agnico Eagle;
- technical review of the Application by the Board, interveners and the public;
- commitments and responses to information requests from the parties during the technical review of the Application;

² For a complete list of attendees at the Public Hearing and Community Session, see APPENDIX E – Sign-in Sheets – List of Participants in the Public Hearing.



- comment submissions received throughout the Board’s consideration of the Application;
- the final written submissions filed with the Board in advance of, and following the Public Hearing; and
- the information provided during the Public Hearing and Community Session,

the three-member panel of the Board, the Whale Tail Pit Panel, duly appointed by the Board to consider the Application met on April 26, 2018 to deliberate and make a decision in respect of the Application. The Whale Tail Pit Panel decided the following, by way of Motions #2018-06-P17-05 and #2018-06-P17-06:

- To grant Agnico Eagle’s request for a new Type “A” Water Licence No. 2AM-WTP1826 and to amend Water Licence No. 2AM-MEA1525 (renumbered to 2AM-MEA1526 to reflect the change to the term of the existing Licence) in accordance with the terms and conditions outlined in this Decision and in the attached Water Licence No.: 2AM-WTP1826 (the Licence) and Amendment to Water Licence No. 2AM-MEA1526 (the Amended Licence);
- Specific terms and conditions of note in the Licence and Amended Licence include the following:
 - the term of Water Licence No. 2AM-WTP1826 will be 8 years, expiring in 2026;
 - the term of Water Licence No. 2AM-MEA1525 will be amended to add one year to the term and will be renumbered to Water Licence No. 2AM-MEA1526, also set to expire in 2026;
 - the security required to be posted under Part C of the new Type “A” Licence 2AM-WTP1826 reflects the submissions of the parties that security in the global amount of **\$26,286,000** is required to reclaim the undertaking, but the NWB has taken note that as set out in the *Whale Tail Security Management Agreement* only 50% of this amount or **\$13,143,000** will be held under the Licence, with the remaining 50% to be held under the land lease to be issued by the Kivalliq Inuit Association;
 - the security required to be held under Part C of the Licence may be reviewed by the Board (in the form of an amendment) if: the *Whale Tail Security Management Agreement* is terminated; when there is a change in the phase of the undertaking from construction to commercial operation to abandonment and reclamation; or upon a material change to the Project that may have a material effect on the amount of security that should be held under the Licence;
 - Part D of the Licence provides specific information regarding the effluent quality limits that must not be exceeded during discharges to Mammoth Lake, or to the tundra, where appropriate;



- Part E of the Licence sets out the volume of water Agnico Eagle is authorized to use and specifies that the NWB authorizes water use from Nemo Lake of up to one hundred seventy five thousand (175,000) cubic metres *per* year during construction, forty five thousand seven hundred and fifty (45,750) cubic metres *per* year for dust suppression on the roads and one hundred and ninety two thousand (192,000) cubic metres *per* year during operations;
- Agnico Eagle is also authorized to obtain sixty three thousand one hundred and fifty (63,150) cubic metres *per* year water for camp use in 2018, and two thousand four hundred (2,400) cubic metres *per* year for the purposes of explosive mixing and associated use, commencing when the Licence is approved by the Minister through to closure.
- In addition, the total authorized volume of waters from Whale Tail Lake (South Basin) for re-flooding of the pit, and any remaining operations shall not exceed ten million five hundred thousand (10,500,000) cubic metres *per* year during closure; and
- The monitoring requirements under the Licence are as set out in Part I and Schedule I. These include the monitoring requirements with respect to discharges directly to the receiving environment as well as general aquatics monitoring and verification monitoring necessary to meet reporting requirements.

SECTION I **FILE BACKGROUND AND REGULATORY HISTORY**

The Whale Tail Pit Project

The Application³ is in relation to water uses and waste deposits associated with the development of a gold mine at the site of the Amaruq property. The Whale Tail Pit is a proposed open pit located in the Amaruq property, a 408 square kilometer (km²) site located on Inuit Owned Land approximately 150 kilometres (km) north of the Hamlet of Baker Lake and approximately 50 km northwest of Agnico Eagle's Meadowbank Gold Mine in the Kivalliq Region of Nunavut. Agnico Eagle has proposed the development of the Whale Tail Pit project in order to continue employment and transition operations between the Meadowbank Gold Mine project, which is at the end of its operational stage and the Meliadine Gold Mine Project, which is in early construction. Construction of the Whale Tail Pit was proposed to take approximately one (1) year beginning in early 2018, with operations expected to commence in late 2018 and continuing for three (3) to four (4) years, from 2019

³ Unless otherwise referenced, this description of the Whale Tail Pit Project is paraphrased from the Application and supporting materials filed with the NWB by Agnico Eagle.



to 2022, followed by closure of the site over approximately seven (7) years, ending in post closure monitoring.

During the NWB's Public Hearing on September 26-27, 2017, the Applicant provided an updated mine development schedule:

The Whale Tail Pit construction – site preparation to construction by July 2018. We have our operational window from 2019 to 2022. The closure stage is 2022 to 2029. And based on our security and the final closure plan -- not the final closure plan but our security agreement with Indigenous and Northern Affairs Canada and the Kivalliq Inuit Association, our post-closure stage is from 2030 to 2046.⁴

Development of the Whale Tail Pit is intended to allow for access to an estimated 8.3 million tonnes (Mt) of ore, and produce 46.7 Mt of waste rock and 5.8 Mt of overburden. Ore would be trucked by road at a rate of 9,000 to 12,000 tonnes per day to the existing Meadowbank Gold Mine for milling. Approximately 8.3 Mt of tailings produced from the milling process would be stored within the existing Meadowbank Gold Mine's Tailings Storage Facility (TSF), with approximately 5.3 Mt stored within the current footprint of the south cell of the TSF and approximately 3 Mt within the north cell of the TSF by constructing internal dike structures within the north cell. In addition, existing ancillary infrastructure supporting the Meadowbank Gold Mine would be used in support of the Whale Tail Pit Project, including the use of Agnico Eagle's existing marine infrastructure to support open-water shipping during the construction phase and annual resupply during operations and the use of the existing mill at the Meadowbank site. The mine product, doré gold bars would also be flown to market directly from the Meadowbank Gold Mine site.

Current Application

The Application being considered by the Nunavut Water Board (NWB) was originally filed by Agnico Eagle Mines Limited (Agnico Eagle or Applicant) on July 8, 2016, seeking to amend the existing Type "A" Water Licence No. 2AM-MEA1525, which applies to the Meadowbank Gold Mine. The amendments proposed in the Application sought to authorize the use of additional water and deposit of waste associated with the development of the mining undertaking at the Whale Tail Pit, a satellite deposit located on the Amaruq property.

⁴ J. Quesnel, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 15-22, p. 39.



On October 3, 2016, the NWB advised the Applicant and the parties that the NWB had determined that a separate Type “A” Water Licence would be required to govern the uses of water and deposits of waste taking place at the Whale Tail Pit. The NWB also indicated that the original Application filed with the NWB would be considered as both an application for a new Type “A” Water Licence to authorize the use of water and deposit of waste associated with activities at the Whale Tail Pit, and an application to authorize the consequential amendments to the existing Water Licence No. 2AM-MEA1525 that may be required to reflect the additional water uses and waste deposits associated with the use of the Meadowbank Gold Mine infrastructure for processing the additional ore mined at the Whale Tail Pit. On October 15, 2016, Agnico Eagle confirmed that the Applicant agreed that the original July 8, 2016 Application should be brought forward in accordance with the NWB’s direction, seeking a new Type “A” Water Licence, Application No.: 2AM-WTP---- combined with consequential amendments to Water Licence No. 2AM-MEA1525.

On December 7, 2016 and January 26, 2017, the Applicant provided responses to the comments provided by parties in the context of their completeness review of the Application. On April 7, 2017, the Applicant provided a further submission in response to the technical review comments of parties filed by March 28, 2017. On June 8, 2017 to July 14, 2017, Agnico Eagle provided additional submissions associated with its commitments from the joint NIRB/NWB Technical Meeting. On February 6, 2018 and March 26, 2018, the Proponent provided its responses to parties’ final submissions filed after the Public Hearing but before the close of the NWB’s Public Hearing Record.

The Application for the Project consists primarily of the documents listed in detail under [APPENDIX D – List of Submissions and Correspondence](#), which included the following key information:

- Main Application Document (including Executive Summaries in English and Inuktitut);
- Information on the proposed use of water, disposal of waste, and associated activities for the mining and milling undertaking, including information related to planning and design, construction, operation, and reclamation phases of the Project; and
- Information on the regulatory requirements, environmental setting, project description, water management, supporting management plans and summary information. .

All documentation associated with the NWB’s review of the Application, including the supporting documents referenced above are available on the NWB’s FTP site and can be accessed using the following link:



<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP----%20Agnico/>

Licensing History

Type “B” Licences for the Project

Water Licence NWB2MEA9899 (As Renewed 2BB-MEA1828)

The original Water Licence NWB2MEA9899 related to the exploration activities at the Meadowbank project and was issued by the NWB in 1998. This licence was subsequently renewed in 2000, 2002, 2005, 2008 and 2013. Amendment No. 1 to the renewed Water Licence 2BE-MEA1318 on July 31, 2014, extended the exploration project area to include the Amaruq property area. On December 1, 2016, the licence was amended again to allow for water use and the deposit of waste in the development of a portal/ramp and rock quarry at the Amaruq Exploration Project along with other exploration works. With this amendment, the Water Licence 2BE-MEA1318 became 2BB-MEA1318. On February 7, 2018, the Board authorized the renewal of the exploration licence 2BB-MEA1318, and Water Licence 2BB-MEA1828 was issued by the Board effective from March 7, 2018.

Water Licence 8BC-AEA1525

Water Licence 8BC-AEA1525 was issued by the NWB to allow for the use of water and deposit of waste during the construction, operation, and eventual decommissioning of the Amaruq Exploration Access Road linking the Amaruq exploration project site to the Meadowbank Gold Mine site. The expiry date for this Licence is December 31, 2025. In the Application, the Applicant requested authorization to upgrade the exploration road and then to include the upgraded haul road within the scope of a new Type “A” Water Licence if issued by the NWB for the development of Whale Tail Pit, NWB File No. 2AM-WTP----.

Water Licence 2BC-WTP1819

Water Licence 2BC-WTP1819 was issued by the Board on March 15, 2018, to allow for the disposal of waste during construction of infrastructure and/or following activities at the Whale Tail Pit and Haul Road Site Preparation Project:

- Pre-construction delivery of material, fuel, and equipment;
- Construction of concrete pads, including options for supplies laydown area (the future site of the camp), and water treatment plant foundation; and
- Upgrade/widen Whale Tail Pit haul road from 6.5 m wide to 9.5 m wide, plus bypasses to ensure the safe pre-construction delivery of material and equipment (such as Vault Pit 777 haul trucks).



The expiry date for this licence is March 14, 2019. The Board believes that the term of this Licence is sufficient to allow the Licensee to conduct site preparation and pre-construction activities associated with preparing the Whale Tail Pit site for development. When the Board issued this short term Licence the Board stated that if the Board issues a Type “A” Water Licence for the Whale Tail Pit Project, the scope of activities of this Type “B” Water Licence would be incorporated into the new Type “A” Water Licence.

Type “A” Licences for the Project

Water Licence 2AM-MEA0815

The original Type “A” Water Licence 2AM-MEA0815 associated with the Meadowbank Gold Mine Project was issued by the NWB on June 9, 2008. This licence was subsequently approved by the Minister on July 10, 2008. Licence No. 2AM-MEA0815 authorized the use of water and deposit of waste in relation to the Mining Undertaking at the Meadowbank Gold Mine Project which is located approximately 70 km north of Baker Lake within the Kivalliq Region of Nunavut.

Amendment No. 1 to 2AM-MEA0815

Amendment No. 1 was issued by the NWB on May 6, 2010 and was subsequently approved by the Minister on June 18, 2010. Amendment No. 1 allowed Agnico Eagle to expand the Marshalling Area Bulk Fuel Storage Facility and fuel storage area, allowing an increase to fuel storage capacity from 40 million litres (ML) of diesel fuel to 60 ML by adding two additional 10 ML capacity diesel fuel tanks. In addition, Amendment No. 1 authorized the construction of an additional 2 ML tank for the bulk storage of Jet A fuel to refuel aircraft flying into the Meadowbank Gold Mine site.

Amendment No. 2 to 2AM-MEA0815

Amendment No. 2 was issued by the NWB on June 30, 2014 and was subsequently approved by the Minister on July 23, 2014. Amendment No. 2 authorized an increase to the use of water associated with the Meadowbank Gold Mine project from the licensed amount of 700,000 m³ per year of fresh water for all purposes (domestic camp use, mining, milling and associated uses), to a total amount of 1,870,000 m³ in 2013 and 1,150,000 m³ per year after 2013.

Short-Term Renewal of 2AM-MEA0815

The Short-Term Renewal was issued by the NWB on March 20, 2015 and was approved by the Minister on April 20, 2015. The Short-term Renewal extended the expiry of the Licence by an additional 180 days to allow time for the NWB to complete their full consideration of



the Renewal and Amendment Application, with all other terms and conditions of Licence 2AM-MEA0815 remaining unchanged.

Renewed and Amended Water Licence No. 2AM-MEA1525

The Renewed and Amended Licence was issued by the NWB on August 8, 2015. The Renewed and Amended Licence was subsequently approved by the Minister on September 2, 2015. The amendment to the scope of the Licence included provisions to authorize additional water use during re-filling of mined out open pits. This Licence will expire on July 22, 2025.

Amendment No. 1 to Water Licence No. 2AM-MEA1525

Amendment No. 1 was issued by the NWB to Agnico Eagle on June 6, 2016 and subsequently approved by the Minister on July 19, 2016. Amendment No. 1 involved amendments to terms and conditions in Part C of the Licence related to the reclamation security required to be held under the Licence. Amendment No. 1 amended Part C to reflect that Agnico Eagle, the Kivalliq Inuit Association (KivIA) and the Minister of Indigenous and Northern Affairs Canada (as the Minister then was) had entered into an agreement to allocate reclamation security for the Project under the Licence and under the Kivalliq Inuit Association's Commercial Land Lease.

Procedural History of this Application

The following listing summarizes some of the key steps in the procedural history of the NWB's processing of this Application. For a review of all process and procedure associated with the Application, interested parties should consult [APPENDIX D – List of Submissions and Correspondence](#).

July 8, 2016

- The Nunavut Water Board (NWB or Board) received an application for amendments to Type "A" Water Licence 2AM-MEA1525 and supporting documentation from Agnico Eagle Mines Limited (the Applicant or Proponent or Agnico Eagle).

October 3, 2016

- The NWB advised the Applicant and the parties that the NWB had determined that a separate Type "A" Water Licence would be required to govern the uses of water and deposits of waste taking place at the Whale Tail Pit. The NWB acknowledged receipt of the July 8, 2016 Application asking parties to review the scope and completeness of information provided and submit their comments to the NWB by November 3, 2016.



November 3, 2016

- NWB received comments on completeness and initial technical assessment from INAC, ECCC and DFO.

January 27, 2017

- NWB determined that the Application could proceed to the next steps in the NWB's regulatory process, provided Notice of the Application and jointly with NIRB invited parties to complete a full technical assessment of the Environmental Impact Statement/Application.

March 24, 2017

- NWB received technical review comments related to the water licence applications from DFO, ECCC, INAC and KivIA.

April 7, 2017

- NWB received Agnico Eagle's preliminary responses to technical review comments.

April 27-29 and May 1-2 2017

- The NIRB and NWB conducted a joint TM/PHC in Baker Lake.

June 8, 2017

- NIRB and NWB jointly released a TM/PHC Decision Report. The Decision Report indicates that the week of September 18, 2017 was proposed for the NIRB Final Hearing in respect of the Whale Tail Pit Project, followed by the NWB Public Hearing scheduled for the week of September 25, 2017. Both Hearings to be conducted in person in Baker Lake.

June 8, 2017 to July 14, 2017

- Agnico Eagle provided submissions in fulfillment of the agreed upon List of Commitments provided in the TM/PHC Decision Report.

August 14, 2017

- NWB received final written submissions in advance of the NWB's Public Hearing from DFO, ECCC, INAC and KivIA.

August 28, 2017

- Agnico Eagle's provided their final submissions in advance of the NWB's Public Hearing.

September 26-27, 2017



- NWB held a Public Hearing (PH) in Baker Lake. The PH Record remained open pending the issuance of the NIRB's Final Hearing Report and the Minister's Decision on NIRB Hearing Report in order to allow parties to provide additional information required to reflect the results of the NIRB's assessment of the Whale Tail Pit Project (such as providing additional information regarding the post-Hearing resolution of issues, Agnico Eagle providing a draft licence framework that was commented on by the parties, etc.).

October 17-18, 2017

- NWB received additional information from DFO, ECCC, INAC and KivIA.

February 13, 2018

- NWB received additional information from INAC.

February 6, 16 and 23, 2018

- NWB received Agnico Eagle's responses to parties' additional information.

February 15, 2018

- NWB received the Minister's decision accepting the NIRB's Final Hearing Report and recommendation that the Whale Tail Pit Project can proceed to the permitting stage.

February 23, 2018

- NWB invited all Parties and the public to provide any final written submissions to the NWB by March 16 before the NWB would close the Public Hearing Record and remit the Application to Panel P17 for decision-making.

March 16-19, 2018

- The NWB received final written submissions from INAC and ECCC.

March 26, 2018

- The Board received Agnico Eagle's final response to final written submissions.

April 4, 2018

- The NWB issued written direction that the Public Hearing Record was closed. On this basis the Application was remitted to the Whale Tail Pit for deliberations and issuance of a Decision Report, including Record of Proceedings to the Minister of CIRNA regarding whether or not to grant



Agnico Eagle's Application and issue a new Type "A" Water Licence and consequential amendments to existing Water Licence No.: 2AM-MEA1525.

NWB Timeline for Processing the Application

As set out under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*), s. 55.2, the NWB is required to process an Application for a Type "A" Water Licence within 9 months from the receipt of a complete application. However, as expressly noted in the *NWNSRTA*, s. 55.31⁵ this 9-month time period did not commence until the Nunavut Impact Review Board's (NIRB) screening and subsequent review of the Whale Tail Project Proposal was complete. In this case, and as set out below, the NIRB's Review of the Project Proposal was completed on March 15, 2018 when the NIRB, pursuant to Article 12, Section 12.5.12 of the *Nunavut Agreement* and s. 111(1) of the *NuPPAA*, issued NIRB Project Certificate [No. 008] for the Whale Tail Pit Project to Agnico Eagle Mines Limited.

Consequently, although the Board provided notice of a complete Application on January 27, 2017, as provided for under s. 55.31, the NWB's timeline for processing the Application did not commence until **March 15, 2018**. On this basis, the NWB has concluded that the NWB's decision-making has been completed and provided to the Minister well within the 9-month timeline required under s. 55.2 of the *NWNSRTA*.

Regulatory History of the Application

Pre-Licensing Processing of the Application

Nunavut Planning Commission Conformity Determination

On June 17, 2016 the Nunavut Planning Commission (NPC) issued correspondence to the NIRB, NWB and relevant parties indicating that Agnico Eagle Mines Limited's (Agnico Eagle or Applicant) "Whale Tail Pit" project proposal required screening by the NIRB as follows:

The NPC has determined that the above-noted project proposal is a significant modification to the project, as its purpose is to establish a mining operation in a previously unconsidered location, as well as an access road to this new site. The project proposal conforms to the Keewatin Regional Land Use Plan (KRLUP), subject to the attached

⁵ As stated in s. 55.31:

If the Board is cooperating and coordinating with ...the Nunavut Impact Review Board...the time limit referred to in section 55.2 does not begin to run until the ...Nunavut Impact Review Board...has completed its screening or review of the project.



conformity requirements from the KRLUP that are applicable to the project proposal.

The project proposal requires screening by the Nunavut Impact Review Board (NIRB) because it does not belong to a class of exempt works or activities set out in Schedule 12-1 of the Nunavut Land Claims Agreement. By this letter and additional enclosures, the NPC is forwarding the project proposal with this determination to the Nunavut Impact Review Board (NIRB) for screening.⁶

In addition, the NPC directed that the Proponent must comply with various conformity requirements applicable to the project proposal, which was then referred to the NIRB for assessment.

Nunavut Impact Review Board Review

On June 17, 2016, the NIRB received a referral to screen the Project from the NPC, with an accompanying positive conformity determination under the Keewatin Regional Land Use Plan. Agnico Eagle originally submitted the Whale Tail Pit Project proposal as a reconsideration of the Meadowbank Gold Mine Project Certificate terms and conditions.

On July 21, 2016, the NIRB provided its determination that the proposed Whale Tail Pit project proposal had not been assessed as part of the original Meadowbank Gold Mine project, and due to its location outside of the original Meadowbank Gold Mine project footprint, the Project would require a separate screening assessment under *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)* and the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*). Pursuant to Article 12, Section 12.4.4 of the *Nunavut Agreement* and s. 86 of the *NuPPAA*, the NIRB screened the project proposal. On August 18, 2016, NIRB issued a Screening Decision Report with the determination that the Project required further assessment best facilitated through a full environmental review under Article 12, Part 5 or 6 of the *Nunavut Agreement* and Part 3 of the *NuPPAA*.

On November 25, 2016, the NIRB commenced the Review of the Whale Tail Pit Proposal. On January 27, 2017, in joint correspondence issued with the NWB, parties were invited to provide the NWB and NIRB with their technical review comments in respect of the Environmental Impact Statement (EIS) and the Water Licence Application by March 28,

⁶ P. Scholz, Nunavut Planning Commission, Letter to Parties Re: NPC File #148297 Whale Tail Pit Project – Meadowbank Division, June 17, 2016.



2017. The joint correspondence also provided the parties and the public with notice of a joint Technical Meeting and Pre-hearing Conference (TM/PHC) that both Boards had directed their respective staff to hold in Baker Lake, in the weeks of April 24 and May 1, 2017.

On June 8, 2017, the NIRB and NWB released the jointly prepared Pre-hearing Conference Decision Report⁷ that provided a summary of the discussions and outcomes resulting from the joint NIRB and NWB Technical Meeting held in Baker Lake, Nunavut on April 27-29, 2017, and the Community Roundtable and PHC held in Baker Lake on May 1 and 2, 2017. The NIRB held its Final Hearing in Baker Lake from September 19 to September 22, 2017. On November 6, 2017, the NIRB released its Final Hearing Report⁸ that summarized the NIRB's review of the Whale Tail Pit Project as proposed by Agnico Eagle and that recommended the Project be allowed to proceed to the licensing stage.

On February 15, 2018 the NIRB received notification from the Minister of Crown-Indigenous Relations and Northern Affairs (CIRNA, formerly referenced as the Minister of INAC) that the NIRB's Final Hearing Report had been accepted pursuant to Article 12, Section 12.5.7(a) of the *Nunavut Agreement* and s. 105(a)(i) of the *NuPPAA*.

On March 15, 2018, the NIRB, pursuant to Article 12, Section 12.5.12 of the *Nunavut Agreement* and s. 111(1) of the *NuPPAA*, issued NIRB Project Certificate [No. 008] for the Whale Tail Pit Project to Agnico Eagle Mines Limited. NIRB Project Certificate [No. 008] sets out the terms and conditions that the NIRB had determined (and the Minister agreed) should govern the development, operation and reclamation of the Whale Tail Pit Project Proposal.

Nunavut Water Board Licensing Process

As noted above, the NWB received the Application on July 8, 2016. Pursuant to Article 13, Clause 13.3.6 of the *Nunavut Agreement* and s. 29 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*),⁹ the full Board has delegated its power to dispose of all matters relating to this Application, including the conduct of the in-

⁷ NIRB and NWB Pre-Hearing Conference Decision Report Concerning the Whale Tail Pit Project (NIRB File No. 16MN056) and An Application by Agnico Eagle Mines Limited for a new Type "A" Water Licence (NWB File No. 2AM-WTP---), June 8, 2017 (the NIRB's Final Hearing Report).

⁸ Nunavut Impact Review Board, Final Hearing Report, Agnico Eagle Mines Ltd., Whale Tail Pit Project, NIRB File No. 16MN056, November 6, 2017.

⁹ Section 29 (1) of the *NWNSRTA* states:

(1) The Board may establish panels of the Board and delegate any of its powers, duties and functions to them.



person Public Hearing in Baker Lake, to a three-member panel (P17 or the Whale Tail Pit Panel) of the NWB.

Following the internal and external preliminary review and comment period of the Application for scope and completeness, the NWB jointly with the NIRB issued a formal notice of the Application on January 27, 2017,¹⁰ and distributed the Application for a detailed sixty (60) day technical review period. The Notice also invited interveners and interested persons to make submissions to the NWB regarding the Application on or before March 28, 2017. This correspondence also included a notice of a joint NIRB/NWB Technical Meeting and Pre-hearing Conference (TM/PHC), in Baker Lake, Nunavut.

In advance of the TM/PHC, the Board provided interested parties with two opportunities for comment on the Application. The Board's first comment period requested parties to consider whether the Application was complete and to identify any outstanding issues that should prevent the Board from continuing to process the Application. This comment period closed on November 3, 2016. The second comment period requested parties to file substantive technical review comments on or before March 28, 2017.

From November 2016 onward, the following Intervenors or interested parties provided written technical review comments in respect of the Application:

- the Kivalliq Inuit Association (KivIA or KIA);
- Indigenous and Northern Affairs Canada (INAC) or as represented at the Ministerial level by the Minister of Crown-Indigenous Relations and Northern Affairs (CIRNA);
- Fisheries and Oceans Canada (DFO); and
- Environment and Climate Change Canada (ECCC).

On April 27-29, 2017, and May 1-2, 2017 the NIRB/NWB jointly hosted an in person TM/PHC in the community most directly affected by the activities proposed in the Application, Baker Lake, Nunavut, including hosting a Community Session for the Application on the evening of April 27, 2018. The meeting was attended by the Board staff, the Applicant, Intervenors and community members. The primary goal of the technical meeting was aimed at further defining the outstanding regulatory and technical issues related to the Application. The secondary goals of the meeting were to discuss the approach contemplated by the Applicant to address the outstanding major issues identified through Intervenors' technical review submissions including any information requests.

¹⁰ As required under s. 55(1) of the *NWNSRTA*.



It should also be noted that, as is the Board's normal practice, the Panel Members of the Board (Whale Tail Pit Panel, P17), the decision-makers for the Application, were not present at the TM/PHC or the Community Session, having delegated the conduct of these meetings to the Board's staff.

At the completion of the TM/PHC, the Applicant made a number of commitments to address the concerns or issues raised by the Interveners in their technical comments filed with the Board. (These commitments were summarized in the Commitment List which was attached as Appendix F to the NIRB and NWB joint Pre-Hearing Conference Report). All participants at the TM/PHC also confirmed that there were no outstanding issues that would prevent the Board from moving forward to the next step of the licensing process in respect of the Application.

On June 8, 2017, the NWB jointly with NIRB issued the Pre-Hearing Conference Decision Report (PHC Decision Report) with respect to the Project/Application.¹¹ On July 27, 2017, the NWB confirmed the dates for the Public Hearing in respect of this Application as September 26-27, 2017 in Baker Lake, Nunavut. As summarized in Appendix G of the PHC Decision Report, the NWB and the parties agreed that the following issues would be discussed at the Public Hearing:

- Integration between Existing Licences and Proposed Licence
 - Scope of consequential amendments/modifications to existing Water Licences 2AM-MEA1525 and 8BC-AEA1525
 - Term of the Licence
- Water Management
 - Scope of new Type "A" Water Licence applicable to the mining undertaking at Whale Tail Pit
 - Water Balance for all withdrawal sources (Nemo Lake)
- Water Use
 - Annual water use amounts from each source (including changes to allocations of existing licenced water uses)
- Updated Water Quality Predictions and Updates to Water Quality Models
- Water Quality and Flow Monitoring
 - Speciation of arsenic in Monitoring
 - Water Quality Modelling
 - Adaptive Management

¹¹ NIRB and NWB Pre-Hearing Conference Decision Report Concerning the Whale Tail Pit Project (NIRB File No. 16MN056) and An Application by Agnico Eagle Mines Limited for a new Type "A" Water Licence (NWB File No. 2AM-WTP----), June 8, 2017.



- Wastewater and Effluent Discharge Criteria
- Water Treatment
 - Water Treatment Methods Selected for the Undertaking (e.g., arsenic and phosphorous)
- Waste Rocks and Tailings Management
 - Design Changes at the Tailings Storage Facility at Meadowbank Site
 - Waste Rock Non-Potentially Acid Generating and Potentially Acid Generating Characterization
 - Thermal Modeling for Waste Rock Storage Facility design
- Mitigation Measures
- Management Plans and Reports
 - Content of plans
 - Updates to plans
 - Approval of plans
- Closure and Reclamation Planning
 - Pit and Whale Tail Lake (North Basin) Water Quality
 - Tailing Impoundment Area Water Quality
 - Tailing Storage and Waste Rock Storage Facility Cover
 - Updates to the Interim Closure and Reclamation Plan
 - Security Cost Estimate
- Water User Compensation
 - Confirmation from the Kivalliq Inuit Association (KIA) and Agnico Eagle that there are no outstanding issues of water user compensation

The NWB issued formal notice of the NWB's Public Hearing on July 17, 2017 by circulating the notice to the Board's distribution list and publishing the notice in Nunatsiaq News.¹² The Notice also advised any parties who wished to seek compensation for significant adverse effects caused by the use of waters or deposit of waste associated with the Application of their rights to file notice with the NWB of their request for compensation. Further the Notice communicated that failure to respond to the notice and advise the NWB of the intention to make representations about compensation at least 10 days before the Public Hearing may result in a loss of a parties' rights to subsequently seek compensation.¹³

In advance of the Public Hearing, the Board received written submissions from the following Interveners:

¹² Notice of the Public Hearing was given in accordance with s. 55(2) of the NWNSRTA.

¹³ As established by ss. 13, 55, 58 and 59 of the NWNSRTA



- the Kivalliq Inuit Association (KivIA or KIA);
- Indigenous and Northern Affairs Canada (INAC);
- Fisheries and Oceans Canada (DFO); and
- Environment and Climate Change Canada (ECCC).

On August 28, 2017, Agnico Eagle filed their final written submission responding to the Interveners' written submissions.

The NWB's Public Hearing was conducted in person on September 26 and 27, 2017, in Baker Lake, Nunavut. The Agendas for the Public Hearing are attached to this Report in [APPENDIX A – Agendas or Public Hearing and Community Session](#). The sign-in sheets, providing a list of attendees at the Public Hearing are provided in [APPENDIX E – Sign-in Sheets – List of Participants in the Public Hearing](#).

A complete list of submissions and correspondence in support of this Application is provided in [APPENDIX D – List of Submissions and Correspondence](#). A list of documentation filed as Exhibits during the Public Hearing is provided in [APPENDIX B – Exhibit List](#). All listed submissions, correspondence, exhibits and transcripts of the Public Hearing have been placed on the Board's public registry and are available from the NWB's ftp site at the following link:

<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP---%20Agnico/>

The Board's decision to hold an in-person Public Hearing in respect of this Application is consistent with the Board's obligation to give due regard and weight to Inuit culture, customs and knowledge, pursuant to Article 13, Clause 13.3.13(b) of the NLCA and s. 33 of the NWNSRTA.

SECTION II

SUMMARY OF FINAL HEARING SUBMISSIONS OF THE PARTIES

The Kivalliq Inuit Association (KIA or KivIA)

The Kivalliq Inuit Association (KIA or KivIA) is a Designated Inuit Organization under the *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*, representing the rights and values of the Inuit within the Kivalliq Region of Nunavut. The specific focus of the KivIA's representation relates to rights to water and wildlife compensation, landowner rights and negotiation of an



Inuit Impact and Benefit Agreement (IIBA). In their written submissions, the KivIA stated that based on commitments and additional information exchanged during the Nunavut Impact Review Board's Review: "...no issues are detailed for the freshwater environment and the atmospheric environment." ¹⁴

Freshwater Quality

The KivIA expressed concerns about freshwater quality, specifically in relation to the potential for arsenic and phosphorus levels to impact water quality on the site and receiving environment. KivIA stated:

Commitments 30, 36, 37 and 42 are related to the potential impacts of arsenic and phosphorus on the site and receiving environment water quality. AEM responded to these commitments with technical memorandum 1658927_Revision 1/6100/6130 Doc. 125. Given the expertise within INAC and ECCC on water quality issues the KivIA will relie [sic rely] on this expertise to resolve any water quality issues. ¹⁵

Atmospheric Environment

KivIA generally accepted Agnico Eagle's response¹⁶ regarding the use of dust-fall monitoring stations at specified points along the Whale Tail Pit Haul Road to validate and improve the modelling of the potential for dust deposition along the Whale Tail Pit Haul Road.

However, given the importance of dust as a potential issue for the residents of the Kivalliq Region, the KivIA requested that in order to verify Agnico Eagle's dustfall predictions, some of the monitoring provided in support of Agnico Eagle's conclusions should be continued for the operating life of the Whale Tail Pit Project. KivIA requested the following monitoring requirements be continued:

1. *Ongoing monitoring at affixed location 480 metres from the Vault pit haul road (ie. DF-4);*

¹⁴ Technical Review of the Final Environmental Impact Statement for the Whale Tail Project, prepared by Nunavut Tunngavik Inc. and the Kivalliq Inuit Association, prepared for the Nunavut Impact Review Board and the Nunavut Water Board, dated August 11, 2017.

¹⁵ Technical Review of the Final Environmental Impact Statement for the Whale Tail Project, prepared by Nunavut Tunngavik Inc. and the Kivalliq Inuit Association, prepared for the Nunavut Impact Review Board and the Nunavut Water Board, dated August 11, 2017 at p. 6.

¹⁶ Golder Associates Technical Memorandum 1658927 /6100/6130 to Ryan Vanengen, Agnico eagle Mines Limited; Commitment 7 – Comparison of Vault Haul Road Observations of Road Dust to Whale Tail EIS Haul Road Predictions, dated June 27, 2017.



2. *Dustfall measurements during June and August along transects perpendicular to the Baker Lake to Meadowbank AWAR.*¹⁷

At the Public Hearing, KivIA indicated that, based on the review of Atmospheric Environment as set out in the Environmental Impact Statement and discussed during the NIRB Review, Agnico Eagle had agreed¹⁸ to the KivIA's recommendations.

Terrestrial Environment

As KivIA's final submission was provided for both the Nunavut Impact Review Board's Review as well as the NWB's licensing process, KivIA included its concerns regarding impacts of the Whale Tail Project on caribou, monitoring and mitigation of potential impacts to caribou resulting from the Project. As none of these issues were directly relevant to the NWB's licensing process, they were not considered in respect of the Application before the NWB.

Water Compensation and Financial Security

At the Public Hearing, the KivIA indicated that discussions related to water compensation were ongoing between Agnico Eagle, the KivIA and INAC. In particular, the KivIA noted that work to update water user compensation based on the revised dates for construction, operations, closure and post-closure presented at the Public Hearing was on-going. The KivIA, noted that they hoped to have water user compensation issues confirmed before the Public Hearing Record closed for the Application.¹⁹

However, the NWB did not receive formal confirmation that the issues of water user compensation had been dealt with, as required by s. 63 of the *NWNSRTA*,²⁰ by Agnico Eagle and the KivIA until May 29, 2018²¹. As stated in s. 63, the NWB could not issue these Reasons for Decision and Water Licence 2AM-WTP1826 until this confirmation was received.

¹⁷ Technical Review of the Final Environmental Impact Statement for the Whale Tail Project, prepared by Nunavut Tunngavik Inc. and the Kivalliq Inuit Association, prepared for the Nunavut Impact Review Board and the Nunavut Water Board, dated August 11, 2017 at p. 2.

¹⁸ Agnico Eagle Mines Limited – Meadowbank Division Whale Tail Pit Final Submission Responses, dated August 28, 2017.

¹⁹ L. Manzo, KivIA, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, lines 11-20, p. 275.

²⁰ 63 (1) The Board shall not issue a licence in respect of a use of waters or a deposit of waste that may substantially affect the quality, quantity or flow of waters flowing through Inuit-owned land, unless
(a) the applicant has entered into an agreement with the designated Inuit organization to pay compensation for any loss or damage that may be caused by the change;

²¹ Kimberley Gilson, Duboff Edwards Haight & Schachter Law Corporation to Stephanie Autut, Executive Director, NWB; Re: Whale Tail Project Licence Application, dated May 29, 2018.



With respect to financial security, in the Public Hearing presentation, KivIA stated that: *“the security deposit for the Whale Tail Project is currently being discussed by the KivIA, INAC and the Proponent. A final agreement on the security deposit will be completed with the proponent, KivIA and INAC in the near future.”*²²

However, by the end of the NWB’s Public Hearing, a completed Security Management Agreement that outlined how reclamation security would be allocated between KivIA, INAC and Applicant was submitted to the NWB and the Agreement, was described by KivIA as follows:

In regard to security deposit, we are getting the total amount of security and we also agree and signed the security management agreement which divide the security 50 percent for INAC and 50 percent for KIA for the purpose of this Whale Tail Project.²³

The Whale Tail Security Management Agreement, dated September 5, 2017, was also included within the KivIA May 29, 2018 correspondence to NWB.

KivIA Post – Public Hearing Submission

In the KivIA’s follow-up submission of October 17, 2017 providing comment on Agnico Eagle’s submission²⁴ at the Public Hearing, namely Exhibit 29 “Water Monitoring Reduction Framework”, KivIA noted that the memorandum *“incorporates the outcomes of a teleconference with Environment and Climate Change Canada (ECCC) on October 11, 2017, and is intended to support a submission to the Nunavut Impact Review Board (NIRB) and the Nunavut Water Board (NWB) prior to October 17, 2017.”*

The KivIA’s submission provided comments in respect of the three categories of monitoring that Agnico Eagle proposed, through the Water Monitoring Reduction Framework, to reduce over the course of the Licence, namely: 1) removal of parameters; 2) reduction in frequency; and 3) removal of a water quality monitoring station. The KivIA also provided submissions regarding the proposed reduction in security.

²² Technical Review of the Final Environmental Impact Statement for the Whale Tail Project, prepared by Nunavut Tunngavik Inc. and Kivalliq Inuit Association, prepared for Nunavut Impact Review Board and Nunavut Water Board, dated August 11, 2017.

²³ L. Manzo, KivIA, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, lines 6-10, p. 275.

²⁴ Richard Nesbitt, Neil Hutchinson (HESL) to Luis Manzo, Jeff Hart (KivIA), Alan Sexton (GeoVector Management Inc.), Technical Memorandum; Re: J170084 – Whale Tail Project – Monitoring and Security Reduction – Update, dated October 11, 2017.



Removal of Parameters

Although the KivIA found the general approach to reductions in monitoring over time to be acceptable, the KivIA identified that interpretative parameters, (i.e. those indicative of environmental changes and toxicity modifying factors) should not be candidates for removal despite not being used in operation or directly influenced by operations. Examples of these parameters included dissolved organic carbon, total dissolved solids, pH and, total hardness.

The KivIA recommended that a parameter may be removed from general monitoring if:

- That parameter meets the criteria outlined in KivIA's recommendations, and
- The result is less than an appropriate analytical detection limit (as agreed to by the Board and the KivIA and/or as outlined in pertinent regulations (e.g. the limits specified in the *Metal Mining Effluent Regulations*, SOR/2002-222)) in 12 consecutive samples spanning no less than 3 years, with samples collected at least once under ice and once in the open water season each year.

Reduction in Frequency

KivIA agreed with the conceptual approach to reducing the monitoring frequency at a particular station. However, the KivIA proposed a fourth additional criterion that must be met before the KivIA would recommend that the monitoring frequency at a monitoring station be reduced. The KivIA stated that reduced monitoring is recommended only: *If analysis of all data collected to date from the particular station do not indicate the presence of an increasing trend in any parameter.*²⁵ That is, the KivIA recommended that previous monitoring must demonstrate that the water chemistry at the particular station is stable.

Removal of Specific Water Quality Monitoring Stations

The KivIA indicated that there should be a mechanism to periodically check sites for unanticipated changes, especially those downstream of source areas such as the Waste Rock Storage Facility and the flooded pit lake. This type of monitoring is intended to ensure unanticipated and un-modeled influences associated with these project features in post-closure are detected and adaptively managed.

The KivIA agreed that the criteria proposed by Agnico Eagle for the discontinuation of a monitoring station would be acceptable to the KivIA, with the addition of the requirement that the analytical results from the station should not indicate a trend of increasing concentrations of any parameter. The KivIA also noted, that while the parties may have agreed in principle with Agnico Eagle's proposed approach, the KivIA recognized that the

²⁵ See Recommendation #5 in Richard Nesbitt, Neil Hutchinson (HESL) to Luis Manzo, Jeff Hart (KivIA), Alan Sexton (GeoVector Management Inc.), Technical Memorandum; Re: J170084 – Whale Tail Project – Monitoring and Security Reduction – Update, dated October 11, 2017.



NWB should reserve the discretion to have a specific hearing or other follow up, based on the scope of Agnico Eagle's request to modify the NWB's typical licence monitoring framework.

Reduction in Security

With respect to the proposed reduction in security requested by Agnico Eagle, KivIA indicated:

- Any reduction in security held by the federal government and KivIA should be justified by a review of all monitoring data to date and be calculated using the most recent version of RECLAIM (or equivalent) software.
- The Applicant should limit its submissions to the Board requesting a change in security to once annually as part of their Annual Report. This is intended to limit the financial and human resources required to review these requests by the Board and other interested parties.
- The Applicant should, as part of any application to the NWB for a reduction in closure or post closure monitoring, clearly outline which conditions of their proposed reduction framework are met according to the criteria above, including any forthcoming reduction triggers. *Monitoring will not be reduced until the updated plan is approved by the NWB with appropriate input from interested parties. A conceptual submission and implementation flow chart [as provided in the submission].*²⁶

The KivIA's submission of October 17, 2017 also included a Technical Memorandum²⁷ with recommendations regarding the Type "A" Draft Water Licence Framework proposed by Agnico Eagle:

- A review of the proposed CREMP Program (EIS App. 8-E2) shows some overlap of stations and Schedule I of the Framework makes reference to MMER parameters. It would be useful for reviewers and likely efficient for AEM, if the Water Licence, CREMP and MMER monitoring programs were harmonized to the extent possible.
- KivIA should be provided with opportunity to comment on Mercury Monitoring Studies Program, CREMP and updated Water Quality and Flow Plan.
- Discharge of Effluent from a Final Discharge Point at Monitoring Program Station ST-WT-2 shall be tested for sub-lethal toxicity along with acute toxicity as per MMER.

²⁶ Richard Nesbitt, Neil Hutchinson (HESL) to Luis Manzo, Jeff Hart (KivIA), Alan Sexton (GeoVector Management Inc.), Technical Memorandum; Re: J170084 – Whale Tail Project – Monitoring and Security Reduction – Update, dated October 11, 2017 at p. 6

²⁷ Richard Nesbitt, Neil Hutchinson (HESL) to Luis Manzo, Jeff Hart (KivIA), Alan Sexton (GeoVector Management Inc.), Technical Memorandum; Re: J170084 – J170084 – AEM Whale Tail Project: Proposed Whale Tail Pit Project Type A Water Licence Framework, dated October 16, 2017.



- The proponent shall confirm that station ST-WT-10 (the Pit Lake as it fills) is located at the centre of the Pit Lake. Water column profiles (temperature, pH, conductivity, dissolved oxygen) shall be collected at each sampling event no less than four times per calendar year once the pit is 50% full. At each sampling event the proponent shall collect discrete water quality samples from a) the surface of the lake b) half way between the chemocline and the bottom of the lake, and c) within one metre of the pit wall at the bottom if the water column profile indicates the presence of thermal and/or chemical stratification.

Indigenous and Northern Affairs Canada (INAC)

INAC has a broad mandate for the co-management of water resources and the management of Crown land in Nunavut under the following applicable law and policy:

- the *Department of Indian Affairs and Northern Development Act*;²⁸
- the *Nunavut Land Claims Agreement* and the *Nunavut Land Claims Agreement Act*;²⁹
- the *Territorial Lands Act*³⁰ and applicable *Regulations*;³¹
- the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;³²
- the *Nunavut Waters Regulations*;³³ and
- the *Mine Site Reclamation Policy for Nunavut*.³⁴

During the technical review of the Application, INAC provided expertise on the following topic areas:

- Surface water quality and quantity (including monitoring);
- Groundwater quality and quantity; and
- Closure costs.

More specifically, INAC raised a number of concerns related to the post-closure performance of the site, as it relates to water quality.³⁵

²⁸ R.S.C. 1985, c. I-6.

²⁹ S.C. 1993, c. 29.

³⁰ R.S.C. 1985, c. T-7.

³¹ See for example *Territorial Land Use Regulations*, C.R.C. c. 1524 and the *Northwest Territories and Nunavut Mining Regulations*, C.R.C. c. 1516.

³² S.C. 2002, c. 10.

³³ S.O.R./2013-69.

³⁴ Minister of Indian Affairs and Northern Development, (Ottawa: Minister of Public Works and Government Services Canada, 2002) available on-line: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna_1100100036043_eng.pdf.

³⁵ Indigenous and Northern Affairs Canada, Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, Nunavut Water Board, Public Hearings, August 14, 2017.



Post-Closure Seepage from the Waste Rock Storage Facility (WRSF)

INAC noted that seepage from the active freeze/thaw zone of the WRSF will occur throughout the post-closure phase. The depth of annual freeze/thaw as well as the geochemical properties of the waste rock in the active zone will determine seepage quantity and quality. INAC also indicated that modelling of different WRSF scenarios predicts that arsenic concentrations in seepage could become elevated, thereby causing adverse impacts to downstream receivers if discharged without treatment³⁶.

WRSF Cover Thickness

INAC noted³⁷ that the closure concept for the WRSF is dependent upon the encapsulation (permanent freeze-back) of waste rock with elevated Acid Rock Drainage (ARD) or Metal Leaching (ML) potential within the waste rock pile. The thermal modelling undertaken by the Applicant to determine the depth of the active zone under future climate change scenarios, predicted that the cover thickness should be at least 3.8 m under a 100-year climate change scenario. However, INAC noted that the model did not incorporate observational data from the Meadowbank site and, as such, requested that the model required further calibration to reflect actual site conditions.

Post-Closure Water Quality in the Flooded Pit / Lake

After approximately 3 years of active mining, the Whale Tail Pit and Whale Tail Lake will be flooded until water levels reach their pre-development elevation. The Applicant's base case scenario predicted that water quality in the flooded pit/lake will be acceptable for direct discharge to the downstream receiving environment. However, INAC commented that when accessing scenarios to model water quality that includes diffusion of arsenic into the pit/lake from the surrounding rock formations, arsenic concentrations in the flooded pit/lake were predicted to be approximately an order of magnitude greater than the proposed Site-Specific Water Quality Objective (SSWQO) for arsenic. The strength and direction of hydraulic groundwater gradients near the pit are critical determinants in the probability of diffusion occurring. On this basis, INAC recommended³⁸ that additional studies and monitoring should be required to confirm the Agnico Eagle's conclusions based on modelling to date.

³⁶ Indigenous and Northern Affairs Canada, Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, Nunavut Water Board, Public Hearings, August 14, 2017.

³⁷ Indigenous and Northern Affairs Canada, Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, Nunavut Water Board, Public Hearings, August 14, 2017.

³⁸ Indigenous and Northern Affairs Canada, Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, Nunavut Water Board, Public Hearings, August 14, 2017.



In submissions at the Public Hearing, INAC identified³⁹ the following outstanding issues and made associated recommendations as summarized below:

- The Waste Rock Management Plan should be updated to include more waste rock sampling to increase confidence that no contamination is entering the WRSF cover. The Monitoring Plan for WRSF seepage should be updated to include criteria that must be met before the dike for the WRSF attenuation pond is breached to ensure water quality is attained. The Applicant should conduct hydrodynamic modelling to evaluate mixing of WRSF seepage in Mammoth Lake.
- Regarding the issue of water quality affected by maximum thaw depths in the WRSF Cover, INAC stated that the thermal model for the Whale Tail WRSF cover should be further calibrated with the available observational data (ground temperature monitoring) from the Meadowbank WRSF. The Applicant should also continue to update the thermal model, as data becomes available, to inform the final WRSF cover design.
- With respect to the post-closure water quality in the flooded pit and Whale Tail Lake, INAC indicated that additional hydrogeological studies are needed to verify hydraulic gradients that could be completed during the 2018 field season prior to dewatering of Whale Tail Lake. Analyses are needed to confirm that meromixis will occur in the pit, if hydrogeological studies show that diffusion of arsenic from around the pit could occur. The updated monitoring plan for the flooded pit should include the specific criteria that would need to be met prior to Agnico Eagle being permitted to breach dams/dikes.

During the Public Hearing, INAC also stated that its previous concerns related to the availability of cover material, Ammonia and Nitrate concentrations from use of explosives were resolved.⁴⁰

At the Public Hearing INAC also indicated that:

³⁹ INAC, Exhibit #22, Hard Copy PowerPoint Presentation, Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Nunavut Water Board Public Hearing, (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----

⁴⁰ I. Parsons, INAC, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, pp. 291-292.



We had previously made one submission with an estimate, and yesterday morning we provided a revised reclamation closure cost estimate to the Board.

Indigenous and Northern Affairs Canada's current reclamation and closure cost estimate is \$26,285,926 and includes consideration around some of the uncertainty in postclosure that was discussed earlier in this presentation.

Discussion on the reclamation closure cost estimate has occurred between the department, Agnico Eagle, and the Kivalliq Inuit Association. And as you have already heard, all parties have accepted the estimate that we have presented.

Additionally, there is agreement between the parties for a security management agreement. As such, Indigenous and Northern Affairs Canada is recommending 50 percent of the reclamation closure cost estimate be held under the water licence for the Whale Tail Pit Project. To be exact, the department recommends the amount -- and I'm hoping my math is right -- the amount of \$13,142,963 be required under the new licence should the Board issue it. This amount will include the security requirements for the Type B licence for the road, for the haul road, as we were directed by the Board to include.⁴¹

At the Public Hearing, INAC also indicated:⁴²

The department is satisfied with the commitments by the applicant and has reached agreement on proposed terms and conditions that relate to all of the issues brought forward in our submissions. Indigenous and Northern Affairs Canada has no outstanding or unresolved issues. The department can commit to providing comments on some additional documents, should they become available. And we will also continue to be engaged on this project should the Board approve the licence -- or should the project go ahead and the Board approve the licence.

⁴¹ K. Costello, INAC, NWB Public Hearing, File No. 2AM-WTP---, Transcript, September 27, 2017, Volume 2, lines 21-26 and lines 1-19, pp. 292-293.

⁴² K. Costello, INAC, NWB Public Hearing, File No. 2AM-WTP---, Transcript, September 27, 2017, Volume 2, lines 17-26 and line 1, pp. 295-296.



INAC Post – Public Hearing Submission

In its submission⁴³ of October 17, 2018 regarding Agnico Eagle’s Exhibit 29 “Water Monitoring Reduction Framework”, INAC stated that INAC had no objection to the Applicant requesting an adjustment to its monitoring requirements, with justification, without the need to go through a more time-consuming Type “A” Licence amendment process. INAC was also of the opinion that most of the proposed reductions to water quality monitoring will occur at post-closure, and as such, only minor adjustments to the monitoring framework would occur during the term of the Water Licence under consideration by the Board. INAC pointed out that the Applicant proposes including a clause in the Water Licences that would enable the NWB to modify the monitoring program without a Public Hearing.

However, INAC also indicated that:

*...before any reduction is considered, there is usually a few years of data to back up such a request to justify the reduction or elimination of a monitoring element. Therefore, INAC is of the opinion that during this licence, if approved, minimal reductions would occur to the monitoring given the relatively short duration of the licence and monitoring data gathered.*⁴⁴

With respect to the reduction in security, INAC agreed that, in general, the security held under a given Water Licence can and should be decreased if studies and monitoring data indicate that the site is becoming chemically and physically stable, thereby also indicating that a reduction in water quality monitoring can be undertaken. However, INAC expressed reservations about reductions to security for these Licences, noting:

...the current licence under consideration for approval only takes us into the closure phase of the project, most of the discussion surrounding security and post-closure monitoring will occur under a different licence review (most likely a renewal). The outcome of any security or

⁴³ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction, dated October 17, 2018.

⁴⁴ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction, dated October 17, 2018, p. 2.



*monitoring adjustment will only occur after careful review of the renewal application package.*⁴⁵

Summary of Issues Resolved

In its October 17, 2017 submission, INAC provided a summary of the issues that were resolved by INAC and Agnico Eagle as was requested by the NWB during the Public Hearing. The “Summary of Resolutions” document indicated that INAC and Agnico Eagle had resolved the following issues:

- In its August 28, 2017 response, Agnico Eagle agreed to update the Waste Rock Management Plan (WRMP) and Water Quality and Flow Monitoring Plan (WQMP) to address issues regarding segregation of waste rock and adequacy of waste rock for cover, along with increased monitoring for early detection of WRSF seepage, to be filed within 60 days of the Licence and Licence Amendment approvals by the Minister.
- Agnico Eagle also agreed that hydrodynamic modelling of WRSF seepage discharge and mixing within Mammoth Lake would be completed and results would be provided at least 60 days prior to operations.
- INAC noted that Total Security had been agreed to by all parties: Agnico Eagle, INAC and the KivIA. The Total Security had been adjusted to include additional monitoring and treatment requirements as requested by INAC.
- Regarding INAC’s request for recalibration of the thermal model of the WRSF and its update using Meadowbank data, the Proponent committed “*to re-calibrate the model and re-run the thermal model with stabilized thermal data from Meadowbank WRSF; these data will be available at the end of the year 2017.*” Consequently, INAC and Agnico agreed that: “*The model would be re-run with these data and results will be available in Q1 2018 prior to mine construction. Results will be used to validate or correct the WRSF cover design.*”⁴⁶
- Regarding Hydrogeological studies for verification of hydraulic gradients and pit water stratification, Agnico Eagle committed “*to provide a study design to carry out a hydrogeological evaluation to be implemented in the 2018 summer field season. The results of this investigation will be available in Q1 2019.*” INAC noted that the Applicant also committed: “*to provide hydrodynamic modelling, meromixis*

⁴⁵ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction, dated October 17, 2018 at p. 2.

⁴⁶ Ian Parsons, A/Manager of Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues; INAC Final Comment #2: Post-Closure Water Quality Affected by Maximum Thaw Depths in the WRSF Cover, dated October 17, 2017.



evaluation of the flooded pit lake, site and downstream water quality model update to NWB 4 months prior to operation, expected to be by Q1 2019."⁴⁷

- Regarding specific criteria for the flooded pit prior to breaching of dams/dikes, Agnico Eagle committed to *"update the WQMP 60 days after issuance of licence."* INAC further noted that the contents of the updated Water Quality Management Plan had also been agreed upon as follows: *"The Plan will include a detailed monitoring schedule of open pit water quality during operation, flooding and when fully flooded along with a decision framework detailing contingency measures should water quality not meet expectations."*⁴⁸
- With respect to the tailings management at Meadowbank site and submission of updated and possibly integrated plans applicable to both the Meadowbank site and the Whale Tail Pit sites, INAC noted: *"Agnico Eagle committed to updating any plans where there is a link between the Whale Tail Pit Project and the Meadowbank licence, including updating the tailings management plan prior to operation of the Whale Tail Pit."*⁴⁹

In its submission of February 13, 2018, INAC reiterated that it does not consider long-term treatment to be an acceptable approach as a mitigation measure for the potential for high arsenic concentration levels remaining in the flooded pit and Whale Tail Lake. Accordingly, INAC emphasized that the additional studies that Agnico Eagle has committed to do *"...are critical and must be completed to allow parties to better understand the risks, but also provide Agnico Eagle with the necessary information to develop feasible tested management plans that do not rely on long-term water treatment."*⁵⁰

On this basis, INAC recommended that the NWB include the following in the Water Licence terms and conditions:

- Require that Agnico Eagle update management plans which the NWB deems relevant to the arsenic concerns;

⁴⁷ Ian Parsons, A/Manager of Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues; INAC Final Comment #3: Post-Closure Water Quality in the flooded Pit and Whale Tail Lake, dated October 17, 2017.

⁴⁸ Ian Parsons, A/Manager of Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues; INAC Final Comment #1: Post-Closure WRSF Seepage Affecting Water Quality, dated October 17, 2017.

⁴⁹ Ian Parsons, A/Manager of Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues; INAC Final Comment #6: Meadowbank Tailings Management, dated October 17, 2017.

⁵⁰ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; RE: 2AM-WTP---- – Agnico Eagle Mines Limited – Whale Tail Pit Project – Review of Draft Water Licence, dated February 13, 2018.



- Require that Agnico Eagle submit a revised version of these management plans for review that incorporate the additional studies and modelling; and
- Require approval of these revised management plans by the NWB before excavation of the pit and any other irreversible activities are undertaken.⁵¹

With respect to the terms and conditions of a potential Licence, the following is a summary of the recommendations that INAC outlined for management of potential impacts to water quality:⁵²

- As different timelines have been proposed for updates of some of management plans INAC recommended to the NWB that, where there is no prior commitment, the NWB include the earliest timeline. Where a commitment has been made, the commitment timeline should be contained within the term and condition.
- INAC recommended that the term and condition requiring submission of Water Quality Model for pit re-flooding as part of the Water Management Plan be expanded to fully reflect the analysis and modelling requirements, risk analysis, contingency planning, and management plan updates as committed to by Agnico Eagle during the September 14, 2017 meeting with INAC to address both the WRSF seepage management and pit-lake water quality concerns. Further, the term and condition should reflect the temporal commitments made by the Applicant that hydrodynamic modeling and hydrogeological characterisation studies be completed prior to the initiation of excavation of the deposit and construction of the WRSF. INAC recommended that updates be completed every 12 months.
- INAC recommended that the Waste Rock Storage Facility Management Plan and other applicable management plans, when updated, should include, but not be limited to:
 - Additional hydrodynamic modelling of the Waste Rock Storage Facility (WRSF) that characterizes downstream impacts under different cover scenarios;
 - A monitoring program that verifies if predictions are realized and helps inform an adaptive management strategy if necessary;
 - Continual thermal modelling of the WRSF that reduces uncertainty surrounding cover thickness and the likelihood that Potentially Acid Generating materials will not be completely encapsulated within permafrost, and incorporates data obtained from Meadowbank (recognizing that the

⁵¹ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; RE: 2AM-WTP---- – Agnico Eagle Mines Limited – Whale Tail Pit Project – Review of Draft Water Licence, dated February 13, 2018.

⁵² Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Licensing Manager, NWB; RE: 2AM-WTP---- – Agnico Eagle Mines Limited – Whale Tail Pit Project – Review of Draft Water Licence, dated February 13, 2018.



Meadowbank facilities would have gathered more data over a longer time period); and

- These management plans should include a section describing/detailing mitigation measures (adaptive management program) that can mitigate and manage a scenario in which seepage water does contain elevated levels of arsenic that is both feasible and can be conducted over a reasonable time frame (not over the very long term).
- INAC also recommended that applicable management plans when updated should include, but not be limited to:
 - Hydrogeological modelling and characterization of the pit that reduces uncertainty surrounding the possibility of elevated arsenic concentrations in the pit fill water;
 - Models of Water Quality in pit lake;
 - The plan should define (confirm) the flow gradients in the pit. The Applicant should demonstrate with confidence that there are no discharge flow gradients in the pit and specifically within the ultramafic areas of the pit. If this cannot be demonstrated with confidence, there is potential for elevated arsenic concentrations to occur in the pit;
 - The plan should include confirmation as to whether stratification will occur in the pit lake and also whether stratification will be stable and will contain elevated arsenic water below the thermocline (within the lower strata);
 - The monitoring program should be designed to compare Agnico Eagle's predictions to actual values and this monitoring should help inform an adaptive management strategy if necessary; and
 - These management plans should include a section describing/detailing mitigation measures (adaptive management program) that can mitigate and manage a scenario in which fill water does contain elevated levels of arsenic. The adaptive management measures chosen should be both feasible and should be measures that can be implemented over a reasonable time frame (not over the very long term).
- INAC recommended that the NWB include a term and condition regarding treatment/containment of contaminated soils.
- INAC recommended that the Licence should include a requirement for sampling/testing of waste rock for Acid Rock Drainage/Metal Leaching potential.
- INAC recommended that Agnico Eagle should be required to meet their commitment regarding flooded pit/lake meromixis at least 4 months prior to operations.



INAC Final Submission

In its final submission of March 19, 2018, INAC⁵³ summarized its previous recommendations and the Applicant's responses, and made the following follow-up recommendations:

- INAC stated the Department was satisfied with Agnico Eagle's commitment to conduct detailed hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake post closure. This modelling will include scenarios of cover contamination with north wall ultramafic rock previously considered and for active layer depth ranges observed at Meadowbank WRSF. INAC also appreciated Agnico Eagle's commitment to update the Waste Rock Storage Facility Management Plan (EIS Volume 8, Appendix 8 A.1) details of the steps involved in waste rock management planning to segregate and store waste rock in its correct location outlined in Golder (2017) adapted to Whale Tail open pit and WRSF and additional sampling and monitoring plans, and submit updated Monitoring and Management Plans 60 days prior to operations. However, INAC recommended that all applicable management plans be submitted 4 months prior to operations as indicated in the commitments Table 1 discussed between INAC and Agnico Eagle.
- INAC acknowledged Agnico Eagle's commitments to conduct a hydrogeological characterization study plan to validate hydraulic gradients and verify the potential for arsenic diffusion from submerged Whale Tail pit walls. The results of the hydrogeological studies shall be provided for review on an annual basis. If warranted, INAC expects that the pit design shall be revised and/or appropriate mitigation measures should be developed to incorporate the results from the additional studies. Further, INAC noted that Agnico Eagle shall report the results of the hydrogeological characterization and their implications to the pit design and relevant management plans for review prior to pit construction.
- INAC also noted that Agnico Eagle had committed that if the results of modelling suggest that arsenic diffusion may result in elevated concentrations in the flooded pit post closure, the Proponent shall perform detailed hydrodynamic modelling of the flooded pit lake prior to closure to evaluate meromixis and flooded pit lake water quality. INAC agreed that the results of modelling shall be provided for review prior to pit closure.
- INAC noted that although it was satisfied with these commitments, INAC did highlight Agnico Eagle's commitment to conduct field work to further define the

⁵³ Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.



hydrogeological characterization. The results of this field work and characterization should be submitted to the Board 4 months prior to operations (which corresponds to the timeline for pit development).

- INAC stated that Agnico Eagle’s response regarding provision in the licence for amendments to the security on application by INAC or the Regional Inuit Association is not aligned with INAC’s proposal, and recommended that Part C Item 3 of a water licence for Whale Tail should also include wording that allows for amendments to security be applied for, or requested by either INAC or the Regional Inuit Association (Land Owner), and that specifies that these requests should be taken into consideration by the NWB.
- INAC was satisfied with Agnico Eagle’s response to update the Water Quality Model and Water Management Plan every 12 months. Agnico Eagle’s commitments to integrate the hydrodynamic modelling of WRSF contact water mixing into Mammoth Lake and hydrogeological modelling and characterization of the pit were satisfying with INAC.
- INAC also noted that as Table 1 submitted by Agnico Eagle in their February 23, 2018 submission to the NWB lists a number of tasks (1-4) to be finished by May 15, 2018, INAC requested clarification on this end date, as some of these tasks appear to require the 2018 field season for data collection.

Environment and Climate Change Canada (ECCC)

ECCC provided comments reflective of their roles and obligations under the *Canadian Environmental Protection Act, 1999*,⁵⁴ the “pollution prevention provisions” within the *Fisheries Act*,⁵⁵ the *Migratory Birds Convention Act, 1994*⁵⁶ and the *Species at Risk Act*.⁵⁷ ECCC has general responsibility for environmental management and protection; preservation and enhancement of water, air and soil quality; conservation and protection of migratory birds, species and risk, flora and fauna; the gathering and provision of meteorological information; and coordination of various specific environmental policies and programs.

In their written submissions prior to Public Hearing, the ECCC’s comments and concerns included the following:⁵⁸

⁵⁴ S.C. 1999, c. 33.

⁵⁵ R.S.C. 1985, c. F-14.

⁵⁶ S.C. 1994, c. 22.

⁵⁷ S.C. 2002, c. 29.

⁵⁸ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017.



North Wall Push Back of Whale Tail Pit

ECCC stated that water quality modeling under both the original pit design (the base case scenario) and the north wall pushback scenario considered the potential for arsenic diffusion from the pit walls. ECCC indicated that the environmental risks and benefits of removing approximately half of the exposed north wall UM material from the Whale Tail Pit (i.e., a north wall pushback) have not been fully quantified or discussed and recommended that that:

ECCC recommends that the Proponent conduct an alternatives analysis of the pit design with and without the north wall pushback scenario, in order to assess the potential risks and benefits to the aquatic receiving environment. The alternatives analysis should consider the entire life of mine and through post-closure.⁵⁹

Sensitivity Analyses on Water Quality Modeling

ECCC acknowledged that sensitivity analyses completed by Agnico Eagle for a range of modeled scenarios in order to evaluate a range of conditions, included the “worst case” cover material composition scenarios and the effects of the north wall pushback on water quality, and highlighted the potential for problems to arise if conditions are not as predicted. The risks are associated with the proper testing and segregation of the waste rock types, including cover material. ECCC recommended that:

The Proponent submit detailed management plans to be implemented for:

- *waste rock segregation and testing;*
- *thermal monitoring of waste rock; and*
- *seepage management and monitoring.⁶⁰*

Effluent Quality Criteria

ECCC identified concerns with respect to the Effluent Quality Criteria (EQC) proposed by Agnico Eagle in respect of discharge into Mammoth Lake from the Attenuation Pond treatment plant with respect to the EQC proposed for aluminum, iron, lead and zinc. ECCC recommended that the EQC be set based on concentrations that are achievable and that minimize discharge levels to receiving waters and that the EQC should be applicable to all mine-related discharges to surface waters. ECCC also noted that because cyanide and

⁵⁹ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017, at p. 9.

⁶⁰ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017, at p. 11.



radium 226 are not expected to be detected at the mine (although criterion for radium 226 is set under the Metal Mining Effluent Regulations (MMER), ECCC would recommend including criteria for cyanide and radium 226 be included under the Water Licence.⁶¹

Sludge Management

ECCC expressed concern that the original proposal for sludge management involved discharging sludge wastes from the water treatment plant into the Whale Tail attenuation pond, noting that because the attenuation pond would ultimately be located within the drained north basin of Whale Tail Lake, the pond site would become submerged within Whale Tail Lake upon re-flooding of the north basin and contamination could result. Consequently, ECCC recommended disposing of sludge into the Waste Rock Storage Facility or the Tailings Storage Facility at Meadowbank, rather than into the attenuation pond/Whale Tail Lake.⁶²

Mercury Study

ECCC indicated that “Azimuth Consulting Group Partnership Report: Predicted Changes in Fish Mercury Concentrations in the flooded area of Whale Tail Lake (South Basin), February 2017” supplied by Agnico Eagle provides a good review of the factors and risk level for the likelihood of increased methylmercury associated with the flooding of the area around south Whale Tail Lake. ECCC however recommended that additional information would need to be collected to understand mercury dynamics in a Northern impoundment scenario. On this basis, ECCC ultimately recommended:

*conducting a separate study during the construction, operations, and closure of the flooded areas to address key uncertainties (Arctic environment, ice rafting, tundra soils, ice cover, interrupted discharge, cold water, slow fish growth, and shortened reservoir life) that were identified in the Azimuth report (February 2017), in order to inform mercury modeling for this Project.*⁶³

⁶¹ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017, at p. 13.

⁶² Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017, at p. 14.

⁶³ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: “AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – Final Written Submission”, dated August 14, 2017, at p. 15.



Sediment Core Sampling

ECCC recommended that a full suite of testing be conducted on sediment core samples. Recommended analyses included pH, metals, particle size, Total Organic Carbon, Total Phosphorous and moisture content.

During the Public Hearing, ECCC indicated that at the end of technical sessions and prior to the Public Hearing some issues had been resolved. The resolved issues included:

- Agnico Eagle had revised arsenic site-specific water quality objectives (25ug/L total fraction), amphibian data excluded; and
- Agnico Eagle also revised treatment objectives for arsenic and phosphorus, as follows:
 - 0.10 mg/L for arsenic (total fraction)
 - 1.0 mg/L for phosphorus (total fraction).⁶⁴

ECCC Post – Public Hearing Submission

In ECCC's submission of October 17, 2018⁶⁵ regarding Agnico Eagle's documents "Water Monitoring Reduction Framework"⁶⁶ and "Draft Water Licence Framework"⁶⁷ (filed by Agnico Eagle as Exhibits #29 and #30 during the Public Hearing), ECCC made the following comments and recommendations.

Water Monitoring Reduction Framework:

ECCC noted that the "Water Monitoring Reduction Framework" is applicable to the post-closure phase of the Whale Tail Pit Project (the Project). Therefore, ECCC was of the opinion that it would be premature to assign/approve post-closure water monitoring reduction criteria so far in advance of the post-closure phase and, as such, recommended re-visiting the topic of reduced monitoring at an appropriate time in the future.

⁶⁴ M. Pinto, ECCC, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, lines 15-26 and lines 1-13, pp. 303-304.

⁶⁵ Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017.

⁶⁶ Agnico Eagle, Exhibit #29, Hard Copy, Memorandum From: C. Prather and D. Filiatrault, To: J. Quesnel, Dated September 26, 201, Water Monitoring Reduction Framework (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----, filed September 27, 2017. (Water Monitoring Reduction Framework or Exhibit #29).

⁶⁷ Agnico Eagle, Exhibit #30, Hard Copy, Hard Copy, **Update** to Exhibit #9, Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ---- Appendix A Agnico Eagle's Proposed Commitments (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----, filed September 27, 2017. (Draft Water Licence Framework or Exhibit #30).



*...opportunities to request reduced monitoring would be available upon renewal of the water licence (which would align with the post-closure phase for this project in 2026), as well as during the Aquatic Effects Management Program review stage. In addition, the Proponent proposes including a clause in the Whale Tail Pit water licence which would enable the NWB to modify the monitoring program without a public hearing. It is ECCC's understanding that this clause would allow the Proponent to apply for reduction of monitoring at any time during the holding of their water licence. ECCC recommends that the NWB provide interested parties an opportunity to review and provide comments on any request for a reduction in monitoring, including the data and rationale that support the request.*⁶⁸

Draft Water Licence Framework

ECCC recommended that all references to management plans or other documents be updated to reference the most recent version of that document, and also recommended that in the new Type "A" Water Licence it should be clear *"whether these references are for the original plan (as under the Meadowbank water licence), or if it includes the associated Whale Tail addendum, or if it refers to a plan/document that is unique to this water licence."*⁶⁹

ECCC also provided recommendations regarding additions and edits to terms within:

- Part B: General Conditions, recommending that a term or condition that should be added to ensure that, upon approval by the Board, Plans required under the Licence become part of the Licence;;
- Part D: Conditions Applying to Construction and Operation to clarify discharge issues and to add a term and condition to address sediment and erosion control requirements;
- Part E: Conditions Applying to Water Use and Management
 - Under Item 5, requesting that the Water Quality Model for pit re-flooding be updated to a more appropriate frequency (i.e. at least annually) following commencement of operations since operations will only last 3-4 years;

⁶⁸ Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017, at pp. 1-2.

⁶⁹ Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017 at p. 2.



- Suggesting that, similar to the existing requirements in Type “A” Water Licence No. 2AM-1525 for the Meadowbank Mine), Agnico Eagle should be required to:

*...on an annual basis during Operations and Closure, compare the predicted water quantity and quality within the pit, to the measured water quantity and quality. Should the difference between the predicted base case values and measured values be 20% or greater, then the cause(s) of the difference(s) shall be identified and the implications of the difference shall be assessed and reported to the Board.*⁷⁰

- Under Part F: Conditions Applying to Waste Disposal and Management ECCC recommended the addition of an item which “*outlines where sludge from the water treatment plant can be disposed of (i.e. the waste rock storage facility),*” as well as “*an item which indicates that no sludge of any type is to be deposited into the Whale Tail Attenuation Pond.*”⁷¹
- Part I: Conditions Applying to General and Aquatic Effects Monitoring, similar to the Water Licence for Meadowbank Mine, ECC recommended that the Water Licence should include requirements that Agnico Eagle:
 - Undertake the Thermal Monitoring Program detailed in the Mine Waste Rock Management Plan as approved by the Board; and
 - Compare monitoring results for receiving waters to model predictions (including base case predictions) and to thresholds identified for management actions, should trends indicate water quality objectives may be exceeded.

ECCC also provided recommendations regarding Schedules A: Scope, Definitions and Enforcement and Schedule B: General Conditions associated with definitions used and monitoring and reporting requirements.⁷²

⁷⁰ Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017 at p. 4.

⁷¹ Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017 at p.4.

⁷² Melissa Pinto Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017 at pp. 4-6.



Summary of Resolutions

In its October 17, 2017 submission, the ECCC also provided a summary of the issues that ECCC considered to have been resolved with Agnico Eagle, also identifying for the NWB how the issues were resolved, as requested by the NWB during the Public Hearing. The Summary of Resolutions indicated the following resolutions:⁷³

- On August 10, 2017, Agnico Eagle confirmed that the proposed north wall pushback would be the preferred design, over the original base case, and provided a revised sensitivity analyses on water quality modelling to KivIA, INAC and ECCC, which outlined the benefits of the proposed north wall pushback.
- Agnico Eagle agreed with ECCC's recommendations regarding detailed management plans for waste rock segregation and testing, thermal monitoring of waste rock and seepage management and monitoring, and specified the management plans where contingency measures would be found. ECCC also acknowledged that Agnico Eagle had also committed to updating the models with monitoring data obtained throughout the construction and operation phases in order to validate predictions.
- Regarding ECCC's recommendation related to Effluent Quality Criteria (EQC), EQC were agreed upon by both parties through discussions with Agnico Eagle and ECCC. On August 24, 2017, Agnico Eagle updated the effluent quality criteria for iron, lead, and zinc. Further, a telephone discussion occurred between ECCC and Agnico Eagle on August 28, 2017 to discuss all EQC, including Ammonia, Total Dissolved Solids, Cadmium, and this was followed by an in-person meeting which occurred on September 25, 2017 in Baker Lake to finalize the EQC for Mercury.
- Regarding sludge disposal concerns, in Agnico Eagle's final written submission, Agnico Eagle agreed to dispose of the sludge into the Waste Rock Storage Facility rather than into the attenuation pond.
- In Agnico Eagle's response to final written submissions, Agnico Eagle agreed with ECCC's recommendation and proposed a Licence term and condition to conduct a separate mercury monitoring program alongside the Core Receiving Environment Monitoring Program and the Fisheries and Offsetting Monitoring Plan, with those monitoring results being compared to model predictions.
- On August 8, 2017, Agnico Eagle confirmed with ECCC that the sediment grab samples are already analyzed for a full suite of testing, and indicated that they will continue to do so. This commitment was also outlined in Agnico Eagle's response to final written submissions.

⁷³ Melissa Pinto, Senior Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project –, Summary of How the Concerns in ECCC's Final Written Submission to the Nunavut Water Board Regarding the Whale Tail Pit Project Were Addressed, attachment to ECCC's Water Monitoring Reduction Framework and Draft Water Licence Framework comment submission, dated October 17, 2017.



Fisheries and Oceans Canada (DFO)

Fisheries and Oceans Canada (DFO-FPP or DFO) is responsible for the administration of the *Fisheries Act*,⁷⁴ and some aspects of the *Species at Risk Act*.⁷⁵ Under the *Fisheries Act*, DFO is responsible for the management, protection and conservation of fish (which include marine mammals as defined by the Fisheries Act) and their habitats to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries. The Minister of Fisheries, Oceans and the Canadian Coast Guard is one of the competent ministers under the *Species at Risk Act*.

The Fisheries Protection Program (FPP or The Program) of Fisheries and Oceans Canada (DFO-FPP or DFO) is responsible on behalf of the department for regulatory review of proposed developments occurring in or near Canadian fisheries waters. DFO reviewed the Whale Tail Pit project and provided comments based on its mandate under the *Fisheries Act*.

From a water licensing perspective, DFO raised a number of concerns related to Freshwater Environment, focusing particularly on such issues as Habitat Losses and Habitat Alteration. DFO made also recommendations regarding Water Quality and Flow Monitoring Plan.⁷⁶

Freshwater Environment – Habitat Losses and Habitat Alteration

In DFO's final written submission in advance of the Public Hearing, DFO re-iterated its original technical review comments that additional details outlining the potential mixing or non-mixing situation in the pit portion of Whale Tail Lake were required, as there was insufficient information provided by Agnico Eagle from the existing Meadowbank CREMP and Water Quality Monitoring Plan to adequately predict the water quality in Whale Tail Lake after closure. DFO noted that if Agnico Eagle was "*unable to demonstrate sustainable water quality and habitat suitable for fish in the post-closure scenario, AEM should provide DFO with contingency offsetting options located outside the Whale Tail Lake basin.*"⁷⁷ DFO also noted that additional and updated information was needed on the evaluation of end pit lake scenarios (with references), to address DFO's concerns regarding long term water quality and physical habitat in the proposed end pit lakes.

⁷⁴ R.S.C. 1985, c. F-14.

⁷⁵ S.C. 2002, c. 49.

⁷⁶ Scott Gilbert, A/Regional Director General, Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: Type "A" Water Licence 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525 - Fisheries and Oceans Canada (DFO) Final Written Submission, dated August 14, 2017.

⁷⁷ Scott Gilbert, A/Regional Director General, Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: Type "A" Water Licence 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525 - Fisheries and Oceans Canada (DFO) Final Written Submission, dated August 14, 2017 at p. 9.



DFO also requested that Agnico Eagle provide more information regarding the 24 hectares and 3390 linear metres of habitat loss associated with impacted waterbodies in the post closure scenario that was discussed in the conceptual offsetting plan. DFO also requested Agnico Eagle provide more information regarding their plan to permanently flood Whale Tail Lake by raising the water level by 0.5 m, including the rationale, and ability to sustain this condition so as to provide measurable increases in fisheries productivity.

Water Quality and Flow Monitoring Plan

DFO requested that Agnico Eagle be required to place a monitoring station in Mammoth Lake, add a station in the pit portion of Whale Tail's North Basin as well as the South Basin, Nemo Lake and include at least 2 control lake monitoring stations in the Water Quality and Flow Monitoring Plan and include rationale to as to why the reference lakes that are chosen are appropriate. DFO also requested that *"when sampling at these locations, that multiple depths be sampled at 1, 5 and 10 m, if the location permits, ensuring to always measure for Temperature, Pressure, Dissolved Oxygen, pH, Salinity and Conductivity."*⁷⁸

DFO expressed concern about the frequency of sampling, noting that to: *"ensure consistency in sampling frequency i.e. all stations as suggested by DFO are sampled each monitoring year rather than 1 station in year 4 and a different one in year 11 as is currently the case in AEM's Water Quality and Flow Monitoring Plan."*⁷⁹

During the Public Hearing, DFO stated:

Fisheries and Oceans has concerns respecting how Agnico would effectively evaluate and monitor the mixing or non-mixing in the re-flooded pit. DFO is also concerned that water quality from the pit could negatively affect the remainder of the lake and fish habitat.⁸⁰

⁷⁸ Scott Gilbert, A/Regional Director General, Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: Type "A" Water Licence 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525 - Fisheries and Oceans Canada (DFO) Final Written Submission, dated August 14, 2017 at p. 21.

⁷⁹ Scott Gilbert, A/Regional Director General, Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: Type "A" Water Licence 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525 - Fisheries and Oceans Canada (DFO) Final Written Submission, dated August 14, 2017 at p. 22.

⁸⁰ M. D'Aguiar, DFO, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, lines 21-26 and line 1, pp. 317-318.



In respect of this concern, DFO stated:

Fisheries and Oceans acknowledges that Agnico's commitment in their final submission response to evaluate the mixing and non-mixing of the pit through depth profile, limnological monitoring, and depth-integrated sampling which will aid in assessing the potential for end pit lakes to support self-sustaining fish populations.⁸¹

During the Public Hearing, advised that Agnico Eagle had committed to doing stratified monitoring under Core Receiving Environmental Monitoring Program (CREMP):

...we're going to monitor in the south basin, as well as Mammoth, as well as in Nemo and other lakes as well, we will make sure that those lakes are clean, and we do that through that stratified monitoring.⁸²

Also as recommended by the NWB, the Applicant agreed that as part of the Water Quality and Flow Monitoring Plan during the closure phase Agnico Eagle could also do a stratified monitoring of pit/lake while the pit is being flooded.⁸³

DFO also stated that in discussions over the course of the Nunavut Impact Review Board and Nunavut Water Board hearings, Agnico Eagle had agreed to provide a rationale outlining the appropriateness of the chosen control lakes for the Whale Tail Pit Project,⁸⁴ and that Agnico Eagle will continue to work with Fisheries and Oceans Canada and the impacted communities to finalize the Fish Habitat Offsetting Plan, the Fish-Out plan, the Water Quality and Flow Monitoring Plan and the Fisheries and Offsetting Monitoring Plan.⁸⁵

⁸¹ M. D'Aguiar, DFO, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, lines 10-16, p. 318.

⁸² R. Vanengen, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 16-20, p. 136.

⁸³ R. Vanengen, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 16-20, pp. 136-137.

⁸⁴ M. D'Aguiar, DFO, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, p. 326.

⁸⁵ M. D'Aguiar, DFO, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 27, 2017, Volume 2, pp. 325-328.



DFO Post – Public Hearing Submission

In its submission of October 18, 2018⁸⁶ regarding Agnico Eagle’s Water Monitoring Reduction Framework⁸⁷ and “Draft Water Licence Framework”⁸⁸ (filed by Agnico Eagle as Exhibits #29 and #30 during the Public Hearing), DFO made the following comments:

Water Monitoring Reduction Framework:

DFO noted that as the proposed Water Monitoring Reduction Framework seemed to be primarily concerned with the mechanisms associated with reductions in reclamation security to be held under the Licence, DFO would offer limited comment. However, DFO did express the view that: *“...it would be premature to review water monitoring reduction framework and associated criteria during the final decision phase of environmental assessment process, since the framework is applicable to the post-closure phase of project.”*⁸⁹

Draft Water Licence Framework

DFO stated that it had no comments regarding the proposed “Draft Water Licence Framework”. However DFO noted that Agnico Eagle will be required to submit to DFO, as a part of the “DFO Request for Review” process, site-specific engineered designs, bathymetry, location and fish habitat features within the selected waterbodies used for winter water withdrawal if the Project was approved to proceed to the regulatory phase, and the water licence issued. DFO also acknowledged that Agnico Eagle had:

...committed to submit the final design, construction drawings and detailed report to the NWB for approval at least 60 days prior to construction of any water works. This include water intake and causeway

⁸⁶ Bev Ross, A/Regional Manager, Regulatory Reviews Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. Proposed Whale Tail Pit Project – Type A Draft Water Licence and Water Monitoring Reduction Frameworks, and DFO Summary of Resolutions, dated October 18, 2017.

⁸⁷ Agnico Eagle, Exhibit #29, Hard Copy, Memorandum From: C. Prather and D. Filiatrault, To: J. Quesnel, Dated September 26, 201, Water Monitoring Reduction Framework (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----, filed September 27, 2017 (Water Monitoring Reduction Framework or Exhibit #29).

⁸⁸ Agnico Eagle, Exhibit #30, Hard Copy, Hard Copy, **Update** to Exhibit #9, Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ---- Appendix A Agnico Eagle’s Proposed Commitments (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----, filed September 27, 2017 (Draft Water Licence Framework or Exhibit #30).

⁸⁹ Bev Ross, A/Regional Manager, Regulatory Reviews Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. Proposed Whale Tail Pit Project – Type A Draft Water Licence and Water Monitoring Reduction Frameworks, and DFO Summary of Resolutions, dated October 18, 2017 at p. 2.



water control structures (dikes, berms jetties, channels), and water crossings (culverts, bridges).⁹⁰

Summary of Resolutions

DFO stated within the Table of Resolution of Issues that:

ECCC and INAC are working with Agnico Eagle to resolve issues involving the monitoring plans. DFO will rely on the expertise of ECCC and INAC with respect to water quality and is satisfied that these issues can be resolved in the authorization phase.⁹¹

Natural Resources Canada (NRCan)

Although NRCan did not provide specific comments related to the water licensing process and did not attend the NWB Public Hearing, however, some of NRCan's comments/recommendations provided to the Nunavut Impact Review Board during the NIRB's Review relate to water quality, groundwater conditions and permafrost conditions, and are provided, in summary form below:⁹²

- NRCan recommended that Agnico Eagle complete additional geotechnical investigations as planned and update the characterization of ground ice conditions in the project area to support detailed and final design of project components;
- NRCan also recommended that Agnico Eagle should conduct 2D thermal modeling to support detailed and final design of the WRSF, including the refinement of the cover thickness, and should also continue to utilize data generated from the Meadowbank monitoring program and data collected from any thermistors installed in the Whale Tail WRSF as well as additional information on the specific material properties of the site.
- NRCan agreed that Agnico Eagle had, through the course of the impact assessment, conducted a reasonable analysis to determine the permafrost in pit and adjacent areas. The Proponent, however, might consider for final design and to refine groundwater

⁹⁰ Bev Ross, A/Regional Manager, Regulatory Reviews Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. Proposed Whale Tail Pit Project – Type A Draft Water Licence and Water Monitoring Reduction Frameworks, and DFO Summary of Resolutions, dated October 18, 2017 at p. 1.

⁹¹ Bev Ross, A/Regional Manager, Regulatory Reviews Central & Arctic Region, DFO to Karen Kharatyan, A/Manager of Licensing, NWB; DFO Summary of Resolutions attached to Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. Proposed Whale Tail Pit Project – Type A Draft Water Licence and Water Monitoring Reduction Frameworks, dated October 18, 2017 at p. 2.

⁹² Summarized from NRCan's presentation at the NIRB Final Hearing, see R. Besner, NRCan, NIRB Final Hearing, NIRB's Review of Agnico Eagle Mines Limited's Whale Tail Pit Project Proposal, NIRB File No. 16MN056, Transcript, September 21, 2017, Volume 3, pp. 552-560.



modelling, to conduct sensitivity analysis to deal with any uncertainties in thermal model parameters such as ground thermal regime, thermal properties and thermal gradient.

- NRCan was satisfied with Agnico Eagle’s groundwater sampling strategy.
- NRCan was in agreement with Agnico Eagle’s approach to using continuous monitoring throughout the life of mine to verify the hypothesis that the pit acts as a recharge area.
- NRCan had reviewed the new information provided in the Water Quality and Flow Monitoring Plan, Version 2, and was satisfied with the responses provided by Agnico Eagle to date, including updating the groundwater model, the Water Management Plan and the inclusion of additional water quality monitoring locations annually and during all phases of the Project.

SECTION III **SUBMISSIONS BY OTHER INTERVENING PARTIES OR MEMBERS OF THE PUBLIC**

In the table that follows the Board has provided a summary, by topic, of the key issues related to the Type “A” Water Licence Application raised by community members during the Public Hearing and Community Session. Those parties interested in a review of all comments received in their entirety are advised to consult the transcripts for the Public Hearing available on-line from the NWB’s website.⁹³ The Board notes that there were no written submissions provided to the NWB by any other intervening party or members of the public.

TABLE 1: KEY ISSUES RAISED BY COMMUNITY REPRESENTATIVES DURING THE PUBLIC HEARING AND COMMUNITY SESSION

Topic	Issues/Concerns/Comments
Discharges into Fish-bearing waters	When Agnico Eagle does exploration drilling through the ice, what substances are added, and could these substances have any effects on fish?
Fish	What is the fish population within Whale Tail Lake before the fish out?
Fish Out	How will you ensure that the fish transferred during the fish out remain healthy and strong when they are in the new water body?

⁹³ NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, Community Session, pp. 186-261.



Topic	Issues/Concerns/Comments
Fish Out	When does Agnico Eagle intend to do the fish out? Would it be when there is ice on the lake?
Fish Out	How many fish nets do you use when you are transferring fish from one water body to another?
Fish Out	Will Fisheries and Oceans Canada be onsite during the fish out to do some monitoring?
Fish Out	Is the water body where the fish will be transferred large enough to sustain the additional fish population being transferred in?
Operations	Would Amaruq/Whale Tail Pit be operational at the same time as Meliadine?
Water Management	Will the site have capacity to store snow, even if there is a heavy snowfall in one blizzard or heavy snowfall in any given year?
Misc. (Specify)	Is Agnico Eagle prepared to operate/suspend operations during high snow falls and blizzard conditions?

SECTION IV **JURISDICTION OF THE NWB**

Under Division 2 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA)⁹⁴ the NWB has jurisdiction to issue a licence,⁹⁵ amend a licence,⁹⁶ or in certain circumstances, cancel a licence.⁹⁷ In exercising the Board's statutory functions under *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* (Nunavut Agreement) and the statutory regime governing the Board (the

⁹⁴ Sections 42-81 of the NWNSRTA.

⁹⁵ See ss. 42, 48, 55, 56, and 70 of the NWNSRTA.

⁹⁶ See s. 43(1)(b) of the NWNSRTA.

⁹⁷ See s. 43(1)(c) of the NWNSRTA.



NWNSRTA and the *Nunavut Waters Regulations*), the NWB must be guided by the following objects:

*... to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general.*⁹⁸

In setting the terms and conditions of a licence, the NWB is guided by these objects and the NWB's statutory duty to make *all* reasonable efforts to minimize *any* adverse effects on aquatic ecosystems. Reading several of the Articles of the *Nunavut Agreement* together,⁹⁹ the NWB relies on the broad definition of "ecosystemic" found in Article 12, Section 12.1.1 of the *Nunavut Agreement*, requiring both the NIRB and also the NWB to ensure that all components of the ecosystem, such as fish and fish habitat, are protected within the parameters of s. 71 of the NWNSRTA.

As with any applications considered by the NWB, the burden of proof for this Application rests with the Applicant, Agnico Eagle, to demonstrate that the request for a new Type "A" Water Licence and amendments to the existing Type "A" Water Licence 2AM-MEA1525 should be granted. In addition, the NWB Rules state: "[a]ny party offering evidence before the NWB shall have the burden of introducing sufficient and appropriate evidence to support its position."¹⁰⁰

Where intervening parties, community representatives and the public present no evidence supporting or rejecting the Applicant's evidence, the NWB will base its decision on its own assessment of the Applicant's request.

SECTION V

REQUIREMENTS OF THE NWNSRTA AND THE NLCA

Objects of the NWB and its Relationship to other Bodies

Land Use Planning

As noted in the discussion of the regulatory history, on June 17, 2016 the Nunavut Planning Commission (NPC) determined that the Whale Tail Pit Project conforms to the Keewatin Regional Land Use Plan (KRLUP).

⁹⁸ See s. 35 of the NWNSRTA.

⁹⁹ This approach is consistent with the direction provided in Article 2, section 2.9.1 of the NLCA.

¹⁰⁰ Section 23.1 of the Nunavut Water Board "Rules of Practice and Procedure for Public Hearing", dated May 11, 2005.



Environmental Assessment

As noted in the discussion of the regulatory history provided above, in November 2017 the Nunavut Impact Review Board (NIRB) completed a review of the potential eco-systemic and socio-economic effects of the Project and recommended that the Project be allowed to proceed subject to various terms and conditions.¹⁰¹ In February 2018, the Minister approved NIRB's recommendation that the Project be allowed to proceed. As directed by the Minister, the NIRB issued the Project Certificate [No. 008] to Agnico Eagle on March 15, 2018.

Inuit Water Rights

The KivIA and Agnico Eagle chose to address compensation for the potential impacts of the Whale Tail Pit Project on Inuit water rights under an agreement separate from the Inuit Impact Benefit Agreement. Accordingly, the NWB sought confirmation from the KivIA and Agnico Eagle that all issues of water user compensation have been dealt with pursuant to Article 20 of the *Nunavut Agreement* and s. 63 of the NWNSRTA. As previously discussed, at the conclusion of Public Hearing the KivIA was unable to confirm that a water compensation agreement had been entered into by Agnico Eagle and the KivIA as contemplated by Section 20.3.1 of the *Nunavut Agreement*.

On May 29, 2018 KivIA confirmed in writing that a Water Compensation Agreement had been entered into between the KivIA and Agnico Eagle¹⁰² stating that *a Compensation Agreement has been entered into between the Kivalliq Inuit Association and Agnico Eagle Mines Limited in respect of the Whale Tail Project, as contemplated by Section 20.3.1 of the Nunavut Land Claims Agreement*. Upon receiving this confirmation, the Board has determined that the compensation requirements of s. 63(1)(a)¹⁰³ of the NWNSRTA have been met with respect to the Application and these Reasons for Decision and associated Licence and Licence amendment were issued.

Recommendations on Marine Areas

¹⁰¹ Nunavut Impact Review Board, Final Hearing Report, Agnico Eagle Mines Ltd., Whale Tail Pit Project, NIRB File No. 16MN056, November 6, 2017.

¹⁰² Kimberley Gilson, Duboff Edwards Haight & Schachter Law Corporation to Stephanie Autut, Executive Director, NWB; Re: Whale Tail Project Licence Application, dated May 29, 2018.

¹⁰³ Section 63(1) states:

The Board shall not issue a licence in respect of a use of waters or a deposit of waste that may substantially affect the quality, quantity or flow of waters flowing through Inuit- owned land, unless
(a) the applicant has entered into an agreement with the designated Inuit organization to pay compensation for any loss or damage that may be caused by the change; or



Section 41 of the *NWNSRTA* permits the Board to advise and make recommendations with respect to any marine matters that may arise to any department or agency of the Government of Canada or the Government of Nunavut.¹⁰⁴ No issues related to marine matters were raised during the course of the Public Hearing and the Board has made no recommendations on marine areas for this Application.

SECTION VI **DECISION TO ISSUE**

Following the Public Hearing and for reasons elaborated further below, the Board has decided to issue Water Licence 2AM-WTP1826 (the new Licence) subject to the conditions set out therein. As part of this process, the NWB has also recommended the issuance of consequential amendments to the existing Water Licence 2AM-MEA1525, including an amendment to the term, so that the amended licence will be renumbered to be Water Licence 2AM-MEA1526 (the Amended Licence). The new Licence and Amended Licence contain terms and conditions necessary to protect the environment, conserve the water resources, and provide appropriate safeguards in respect of the Licensee's use of waters and deposit of waste associated with the mining undertaking at the Whale Tail Pit.

Conditions for Issuance of a Licence

Section 57 of the *NWNSRTA* provides several key legislative requirements that must be satisfied before the NWB may issue a licence.

The Board may not issue a licence unless the applicant satisfies the Board that

- (a) any waste produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of the water quality standards and effluent standards that are prescribed by the regulations or, in the absence of such regulations, that the Board considers acceptable; and*
- (b) the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for*

¹⁰⁴ Section 41 of the *NWNSRTA* states:

The Board may, either jointly with the Nunavut Planning Commission, the Nunavut Impact Review Board and the Nunavut Wildlife Management Board, as established by the Agreement, acting as the Nunavut Marine Council referred to in section 15.4.1 of the Agreement, or on its own, advise and make recommendations respecting any marine area to any department or agency of the Government of Canada or the Government of Nunavut, and those governments shall consider that advice and those recommendations when making any decision that may affect that marine area.



- (i) the completion of the appurtenant undertaking,*
- (ii) such measures as may be required in mitigation of any adverse impact, and*
- (iii) the satisfactory maintenance and restoration of the site in the event of any future closing or abandonment of that undertaking.*

Financial Responsibility of the Applicant

As outlined under the *NWNSRTA*, s. 57(b), the NWB considers three aspects of financial responsibility:

- the financial ability of the Applicant to complete the appurtenant undertaking;
- the ability of the Applicant to undertake measures to adequately monitor for impacts and implement measures to mitigate any impacts; and
- the Applicant's ability to maintain and restore the site during care and maintenance, closure and abandonment.

This third aspect of financial responsibility will be specifically addressed in the section of this decision discussing reclamation security.

Section 57 also makes it clear that the NWB's assessment of the Applicant's financial responsibility is a contextual analysis that considers not only the undertaking which is the subject matter of the Licence, but also the Applicant, with particular regard to the Applicant's past performance.

With respect to considering Agnico Eagle's past performance to assess their financial capacity to carry out the undertaking, the Board notes that, since 2014 the Applicant has had a Type "B" Licence in place to authorize various water uses and waste deposits associated with exploration activities for the Whale Tail Pit Project, including effluent discharges from the camp at the mine (exploration) site. There was also another Type "B" Licence issued in 2015 to authorize water uses and waste deposits associated with the construction and operation of Amaruq Exploration Access Road. In March 2018, the Board granted a Type "B" Licence to Applicant to authorize water uses and waste deposits associated with the construction and pre-development of Whale Tail Pit Project. There was no evidence before the Board of any substantial outstanding issues of non-compliance with respect to the existing type "B" Licences that would suggest the Applicant is unable to fulfill the financial responsibilities associated with the Whale Tail Pit Project.



Equally important, Agnico Eagle has been successfully operating the Meadowbank Gold Mine Project (Water Licence No. 2AM-MEA1525) since 2008, which is approximately 70 km north of the Hamlet of Baker Lake, Nunavut, and is currently constructing the Meliadine Gold Project (Water Licence No. 2AM-MEL1631) since 2016, which is approximately 25 km north of Rankin Inlet. There is no evidence before the Board of any outstanding issues in respect of either of these Projects that would suggest limits on the financial ability of Agnico Eagle to complete the appurtenant undertaking proposed in this Application.

The Board also notes that with respect to all elements of the Applicant's financial responsibility, none of the parties, community members, representatives from the community of Baker Lake presented evidence that would call into question the Applicant's financial responsibility as required by s. 57(b). The Board has therefore concluded that the Applicant has established that Agnico Eagle has the financial resources to meet the obligations imposed under the new Licence and the Amended Licence issued for the Whale Tail Pit Project.

Compensation of Existing or Other Users

The *NWNSRTA* requires that the NWB be satisfied that compensation of existing or other water users affected by the Application has been or will be paid.¹⁰⁵ To ensure that all parties with the potential to bring a water compensation claim have been notified of their rights under the *NWNSRTA*, the NWB provided, on January 27, 2017, Notice of the Application, including an invitation to parties with water user compensation issues to advise the NWB regarding such issues in accordance with s. 55 of the *NWNSRTA*. The NWB confirms that no representations regarding users seeking compensation were made to the NWB throughout the Board's processing of the Application.

Issuance of a Licence

As stated above and pursuant to s. 42(1) of the *NWNSRTA*, the NWB has decided to issue new Type "A" Water Licence 2AM-WTP1826 and amended Type "A" Water Licence 2AM-MEA1526 subject to the terms and conditions set out in these Reasons for Decision and in attached new Licence and amended Licence. In issuing the new Licence and amended Licence, the NWB is satisfied that the Application contained the required information and is in the proper form having regard to the requirements of the *NWNSRTA*¹⁰⁶ and associated Regulations.¹⁰⁷

¹⁰⁵ See ss. 58-60 of the *NWNSRTA*.

¹⁰⁶ See s. 48 of the *NWNSRTA*.

¹⁰⁷ *Nunavut Waters Regulations*, SOR/2013-69, April 18, 2013.



Assumptions

When faced with choices regarding monitoring requirements such as standards or parameters to be imposed under the Licence, the Board has opted to impose stringent monitoring requirements in an effort to ensure that the Applicant meets their on-going environmental protection obligations.

Applications in Relation to the Licences

The NWB is satisfied that the requirements of s. 48 of the *NWNSRTA* have been met. Agnico Eagle filed the Application, which complied with the NWB's Guide No.4 (Guideline for Completing and Submitting an Application for a New Water Licence) and associated Supplemental Information Guideline (MM3) for Mine Development, accompanied by the fees required by *Nunavut Waters Regulations*, including the application fee. In addition, Agnico Eagle has provided the necessary application and supplementary information requests required for evaluating whether the new Licence and amended Licence should be granted.

Application to Amend or Application for Future Modifications

In relation to future proposals to amend or modify the Whale Tail Pit Project and associated water uses and waste deposits as proposed by Agnico Eagle in the Application, the NWB reminds Agnico Eagle that it must comply with all requirements of the *Nunavut Agreement*¹⁰⁸ and *NWNSRTA*¹⁰⁹ where applicable.

Assignment of a Licence

In future, should Agnico Eagle wish to assign the Licence, it should be aware that a water licence is only assignable if the requirements of s. 44 of the *NWNSRTA* have been met. This section states:

A sale or other disposition by a licensee of any right, title or interest in an appurtenant undertaking constitutes, subject to the authorization of the Board, an assignment of the licence to the person to whom the sale or other disposition is made.

All necessary forms for filing an application for assignment can be obtained from the NWB FTP site or Licensing Department.

¹⁰⁸ See Article 12, Clause 12.4.3 (b) of the NLCA.

¹⁰⁹ See s. 43 of the *NWNSRTA*.



Cancellation or Expiry of the Licence

The NWB notes that s. 46 of the *NWNSRTA* states: “[t]he expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence.”

In addition, based on the NWB’s authority under s. 43(1)(c)(iii) of the *NWNSRTA*, the NWB may, on application by a licensee, or on its own motion, cancel a licence at any time when the NWB considers the cancellation to be in the public interest. For the NWB to consider cancellation of a licence, the NWB requires evidence from the licensee and INAC’s Inspector establishing that an undertaking has been abandoned, fully reclaimed and there are no outstanding obligations under the licence.

Term of Licence

Section 45 of the *NWNSRTA* provides that the term of a licence or any renewal shall not exceed twenty-five years or the “*duration of the appurtenant undertaking*”.

The Applicant has applied for a term of 8 years to develop the Project from construction through operation and into the commencement of the closure phase. The updated mine plan schedule includes 2 years of construction, 3-4 years of active mining, and approximately 8 years of closure, concluding in 2030, followed by approximately 16 years or more post-closure monitoring.

The Board notes there were no issues raised by the parties with regard to the Applicant’s proposed term of the Licence. The NWB is satisfied that an 8-year term for the new Licence is appropriate to meet the objective of providing certainty for the Applicant and accountability for interested parties. Therefore, the Board accepts Agnico Eagle’s request for the new Licence to be issued for a term of 8 years and unless renewed, the Licence will expire in 2026.

As some of the existing ore processing and tailings disposal infrastructure at the Meadowbank Gold Mine will be used to support processing of the additional ore from the Whale Tail Pit, the Board has also considered consequential amendments to existing Water Licence 2AM-MEA1525. With respect to the term of the existing Licence, the Board has decided, as recommended by INAC (Recommendation #110) and agreed to by the Applicant

¹¹⁰ INAC Submission to NWB; Re: Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Pit Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, dated August 14, 2017.



(Response #111), to amend the term of Water Licence 2AM-MEA1525 to add one year so that the amended Water Licence will expire at the same time in 2026 as the new Licence. On this basis, existing Water Licence No. 2AM-MEA1525 is amended and renumbered so the amended Water Licence will become Water Licence No. 2AM-MEA1526.

SECTION VII **WATER LICENCE TERMS AND CONDITIONS**

The Licence does not take effect until approval of the Minister is given or deemed to have been given pursuant to s. 56 of the *NWNSRTA*.¹¹² As indicated in Section VI, the Panel has decided to issue a new Type “A” Water Licence and consequential Amendment to the existing Type “A” Water Licence, subject to the conditions contained in the attached Licence and Amendment. To provide context and clarity, the NWB has provided discussion and commentary about only specific terms and conditions in the text that follows. The Board has not included discussion or commentary with respect to those licence terms and conditions that are clear in their wording and intent on the face of the Licence.

Part A: Scope, Definitions and Enforcement

The undertaking, for which the new Licence is issued, is classified as a Mining Undertaking in accordance with Schedule 1, Item 2 of the *Nunavut Waters Regulations*.¹¹³ The general scope of the Licence includes the following activities and/or facilities [note capitalized terms are defined terms under the Licence]:

- Withdrawal and use of water from Nemo Lake for camp, mining, associated activities and domestic purposes;
- Withdrawal and use of water from unnamed lake approximately 250 metres from the Emulsion Plant for use in explosives mixing;
- Withdrawal and use of water from Whale Tail Lake (South Basin) for the re-flooding of the open pit following pit development;

¹¹¹ Agnico Eagle Mines Limited –Meadowbank Submission to NWB; Re: Whale Tail Pit Final Submission Responses, dated August 28, 2017.

¹¹² Section 56 of the *NWNSRTA* states:

The issuance, amendment, renewal and cancellation of a type A licence, and if a public hearing is held, a Type B licence are subject to the approval of the Minister.

Section 56(2.2) states:

If the Minister does not issue a decision within 45 days of receiving the Licence from the Board, (or within 90 days if the Minister has extended the decision-making period by an additional 45 days) the Minister is deemed to have approved the Licence.

¹¹³ SOR/2013-69.



- Dewatering of Whale Tail Lake North Basin;
- Quarrying of materials from specified locations;
- Operation of satellite mine site facilities including bulk fuel storage, shops, offices warehouse and camp;
- Operation of a camp at the Project site;
- Construction and operation of the Whale Tail Pit Haul Road, site roads, including associated water crossings and bridges;
- Construction and operation of the Whale Tail Waste Rock Storage Facility, and Ore Stockpiles;
- Operation of a Sewage Treatment Plant, Waste Water Treatment Plant and controlled discharge of treated Effluent during operations;
- Set-up and operation of diesel fired-equipment including the Waste Incinerator or approved equipment;
- Construction and operation of the Whale Tail Pit Landfill;
- Use of the Landfarm or other approved landfarm facility;
- Operation of the Whale Tail Attenuation Pond;
- Management and disposal of Wastes associated with the Whale Tail Pit satellite deposit including: waste rock storage facility, landfill, ore stockpiles, water treatment plant, attenuation pond and other wastes as described in the Application;
- Handling and storage of petroleum products and hazardous materials including explosives and other reagents;
- Construction and operation of Contact and Non-Contact Water management systems;
- Construction of Whale Tail site water management infrastructure including: Whale Tail Dike, Mammoth Dike, Waste Rock Storage Facility Dike, Northwest Dike, Mammoth channel culverts, Whale Tail Attenuation Pond, Saddle/Coffer Dam, and Whale Tail diversion channel;
- Controlled and regulated Discharge of Effluent to Mammoth Lake from Whale Tail Attenuation Pond via Mammoth Lake Diffuser;
- Re-flooding of Whale Tail open pit following pit development; and
- Progressive Reclamation and Abandonment planning of on-site facilities and infrastructure.

Further information and details of the scope of the Licence and its activities and/or facilities can be accessed using the following link:



<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP---%20Agnico/1%20APPLICATION/>

There are currently three Type “B” Licences issued by the Board. Activities included within the scope of the existing Type “B” Licences include exploration and advanced exploration of the Amaruq property, construction and use of the all-weather access road for exploration purposes, and various authorized pre-development activities. During the Board’s review of the Application, Agnico Eagle indicated that some aspects of the scope of two of the existing Type “B” Licences would be subsumed under the scope of the new Type “A” Water Licence, if/when issued. In particular, the Board expects that the entire scope of Licence No. 8BC-AEA1525 (Amaruq Exploration Access Road) and Licence No. 2BC-WTP1819 (Whale Tail Pit and Haul Road Site Preparation Project) will be included under the new Licence. On this basis, upon issuance of the new Type “A” Licence, Agnico Eagle may apply to cancel Licence No. 8BC-AEA1525 and 2BC-WTP1819 and upon the receipt of the cancellation request, the Board may cancel these Licences as the full scope of the water uses and waste deposits authorized under these Type “B” Licences will be included under the new Type “A” Licence.

The Licensee is responsible for the condition of all sites included in the scope of the Licences for the duration of the Licences, and is responsible to undertake any reclamation, remediation or other impact mitigation activities that may be required, if monitoring identifies impacts or potential for environmental impacts resulting from the former mine or associated infrastructure.¹¹⁴ If monitoring or inspection activities identify potential for impacts or actual impacts, the Board may require the Licensee to undertake additional activities at the site. Depending on the nature of the reclamation, remediation or other impact mitigation measures required, the Licensee or the Board may revisit the scope of the Licence to include any specific water use or waste deposits associated with these additional activities.

The type of activities intended to address the potential impacts from licensed undertakings may be referred to as “restoration,” “rehabilitation,” “remediation,” “reclamation,” etc. These terms are often used interchangeably in practice, but their definitions vary by authorizing and implementing agencies. For the purposes of the Licence, the Board adopts the terminology provided by the *Guidelines for the Closure and Reclamation of Advanced*

¹¹⁴ *Mine Site Reclamation Policy for Nunavut, 2002*, Minister of Indian Affairs and Northern Development, (Ottawa: Minister of Public Works and Government Services Canada, 2002) available on-line: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna_1100100036043_eng.pdf.



*Mineral Exploration and Mine Sites in the NWT (the 2013 Guidelines)*¹¹⁵ which uses the following definitions:

“Reclamation” is the process of returning a disturbed site to its natural state or one for other productive uses that prevents or minimizes any adverse effects on the environment or threats to human health and safety.

“Remediation” is the removal, reduction, or neutralization of substances, wastes or hazardous material from a site in order to prevent or minimize any adverse effects on the environment and public safety now or in the future.

Reflecting these definitions and the Board’s mandate to protect Nunavut’s freshwater systems and dependent ecosystems for future generations, the terms and conditions included in the Licence are designed to ensure that the potential for environmental impacts associated with the Whale Tail Pit Project both now and in the future are monitored and, if necessary mitigated.

While not a subject matter of this Licence, the Board notes that most of closure and post-closure monitoring for the Project, which will be conducted by Agnico Eagle and enforced by INAC, is an activity requiring future licensing. Therefore, the primary purpose of the monitoring associated with the Project for now and in the future will be to continue to provide information which confirms that the four closure principles are met: 1) physical stability; 2) chemical stability; 3) there are no long-term active care requirements; and 4) the actual condition does not represent any restriction on the future use of the site (including aesthetics and values).¹¹⁶

Definitions

The Licensee shall refer to Schedule A of the Licence for definitions of terms used in this Licence.

¹¹⁵*Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT*, Mackenzie Valley Land and Water Boards and Aboriginal Affairs and Northern Development Canada, (MVLWB/AANDC: Yellowknife, 2013) available on-line:
http://mvlwb.com/sites/default/files/documents/wg/WLWB_5363_Guidelines_Closure_Reclamation_WR.pdf

¹¹⁶ *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT*, Mackenzie Valley Land and Water Boards and Aboriginal Affairs and Northern Development Canada, (MVLWB/AANDC: Yellowknife , 2013) available on-line:
http://mvlwb.com/sites/default/files/documents/wg/WLWB_5363_Guidelines_Closure_Reclamation_WR.pdf



Enforcement and Compliance

For the purpose of ensuring compliance with the Licence, an Inspector designated by the Minister of INAC may inspect or examine works, waters or waste and exercise other powers as set out in the *NWNSRTA*.¹¹⁷ The *NWNSRTA* also includes provisions authorizing the NWB to require a licensee to furnish and maintain security and prescribing serious penalties for breach of the licence.¹¹⁸ Investigations or inspections to support enforcement and compliance are carried out by persons designated and empowered by the Minister.¹¹⁹

The Board also points out to Agnico Eagle that the Licence states that “*Compliance with the terms and conditions of this Licence does not absolve the licensee from responsibility for compliance with all applicable legislation, guidelines and directives.*”

Part B: General Conditions

Reports and/or Plans Filed with the NWB

In support of the Application, the Proponent submitted a number of Programs/Plans that have been approved and/or accepted by the Board with the approval of the Licence:

Plans applicable to both 2AM-MEA1526 and 2AM-WTP1826 Water Licences

The following documents are also required under the Water Licence 2AM-MEA1526. The Licensee is advised that any changes to these Plans approved or accepted under the Water Licence 2AM-MEA1526 or Water Licence 2AM-WTP1826 shall be applicable to both 2AM-MEA1526 and 2AM-WTP1826 Licences.

- Aquatic Effects Management Program (AEMP), Version 3 (November 2015);
- Ammonia Management Plan (March 2016);
- Core Receiving Environment Monitoring Program (CREMP), Version WT (June 2016);
- Dewatering Dikes: Operation, Maintenance and Surveillance Manual, Version 6 (February 2017);
- Emergency Response Plan, Version WT (June 2016);
- Groundwater Monitoring Plan, Version WT (Jan. 2016);
- Hazardous Material Management Plan, Version 3 (October 2013);

¹¹⁷ Sections 85-94 of the *NWNSRTA*.

¹¹⁸ Section 90 of the *NWNSRTA*.

¹¹⁹ Section 85-88 of the *NWNSRTA*.



- *Meadowbank and Whale Tail Bulk Fuel Storage Facilities: Environmental Performance Monitoring Plan*, Version 3 (June 2016);
- Quality Assurance/Quality Control (QA/QC) Plan, Version 3 (October 2015) accepted by the Board;
- Spill Contingency Plan, Version WT (June 2016);
- Waste Water Treatment System Operation and Maintenance Plan, Version 1 (December 2015); and
- Operational ARD/ML Testing and Sampling Plan, Version WT (June 2016).

Plans applicable to Water Licence 2AM-WTP1826 Specifically

The Applicant submitted the following additional Plans that are applicable only to the Whale Tail Pit Project:

- Whale Tail Pit Haul Road Management Plan, Version WT (June 2016);
- Whale Tail Interim Closure and Reclamation Plan, Version WT (June 2016);
- Whale Tail Pit Landfill and Waste Management Plan, Version 1 (January 2017);
- Whale Tail Pit Water Management Plan, Version 1 (January 2017);
- Whale Tail Pit Water Quality and Flow Monitoring Plan, Version 2 (May 2017);
- Whale Tail Pit Water Quality Monitoring and Management Plan for Dike Construction and Dewatering, Version 1 (January 2017); and
- Whale Tail Pit Waste Rock Management Plan, Version 1 (January 2017).

Agnico Eagle should note that for some management plans, the NWB has prescribed that the plan must be accepted or approved by the NWB in writing to be considered compliant with the requirements in the Licence. However, the NWB also notes that the Board's approval or acceptance of a plan, does not necessarily imply that the NWB is commenting on or has otherwise approved elements of that plan that may be outside of the NWB's jurisdiction. For example, the NWB's approval of a groundwater management plan that may involve groundwater discharges into the marine environment over which the NWB does not have jurisdiction would be limited to approval of only those aspects of the plan associated with waste deposits into freshwater, with the marine discharge elements of the plan awaiting the required approvals from regulatory authorities such as INAC, DFO and/or ECCC with jurisdiction over discharges into the marine environment.

Further, the NWB may alter or modify a plan, if necessary, to achieve the legislative objectives and will notify the licensee in writing of acceptance, rejection, or alteration of any plan. The plan must then be carried out in a manner and timeframe consistent with the NWB's direction. Every plan to be carried out pursuant to the terms and conditions of the



Licence shall become a part of the Licence, and any additional terms and conditions imposed upon approval of a plan by the NWB also become part of the Licence.

Part C: Conditions Applying to Security

Requirement of Security

The *NWNSRTA* allows the Board to require the Licensee to furnish and maintain security with the Minister, in a form determined by the regulations or form satisfactory to the Minister. Specifically, s. 76(1) of the *NWNSRTA* states:

The Board may require an applicant, a licensee or a prospective assignee to furnish and maintain security with the Minister in the form, of the nature, subject to such terms and conditions and in an amount prescribed by, or determined in accordance with, the regulations or that is satisfactory to the Minister.

Further, as referred to in the section discussing the financial responsibility of the Applicant, the Board may not issue a Licence unless the Board is satisfied regarding the financial responsibility of the Applicant, including reviewing any costs associated with the closing or abandonment of the undertaking.¹²⁰

The Board's Jurisdiction over Security

In accordance with the NWB's duties and authority under the *Nunavut Agreement* and the *NWNSRTA*, the Board has the broad and widely recognized mandate to assess and order security to be posted under the Water Licence. The Board has the jurisdiction to fix security in the amount necessary to ensure that the overall reclamation of the licensed undertaking is secured.¹²¹

As a result of its statutory authority and obligations, the Board has established a holistic and practical approach to the assessment of the security required to be held by the Applicants under their Water Licence that does not attempt to draw artificial distinctions between costs associated with the reclamation of land-based impacts and the reclamation of water-based impacts. This holistic and practical approach was first described in the 2001 decision in the BHP Boston Licence renewal, as cited in the Board's decision for the Doris North Project,¹²²

¹²⁰ Subsection 57(b) of the *NWNSRTA*.

¹²¹ Nunavut Water Board, Reasons for Decision for 2AM-DOH0713, September 19, 2007 at p. 25.

¹²² From the Board's 2001 renewal of the Boston Licence, as cited in the Hope Bay decision, see Nunavut Water Board, Reasons for Decision for 2AM-DOH0713, September 19, 2007 at p. 23.



and continues to inform the Board's approach to fixing reclamation security under a water licence.

In the current Water Licence Application the Applicant, INAC, and KivIA raised no issue with the Board's mandate to assess security sufficient to reclaim all sites affected and impacts created by the licensed undertaking. This approach is also consistent with the principles as set out in the *Mine Site Reclamation Policy for Nunavut*, 2002, which provides:

- The total financial security for final reclamation required at any time during the life of the mine should be equal to the total outstanding reclamation liability for land and water combined (calculated at the beginning of the work year, to be sufficient to cover the highest liability over that time period).
- Financial security requirements related to reclamation should be clearly set out in water licences, land leases and other regulatory instruments, though there may be circumstances where security requirements may be more appropriately dealt with through an agreement.¹²³

Arrangements relating to security

Under amendments to the *NWNSRTA* that came into force in 2015, the NWB is required to consider any security arrangements that are in place between the Designated Inuit Organization (the KivIA in this case), the Government of Canada and the Applicant, with a view to avoiding a situation of overlapping security being held for a project under the water licence and other instruments as may be required by the Designated Inuit Organization as land owner, such as a commercial production lease, land use permit, land lease, etc.

The amended s. 76.1 of the *NWNSRTA* establishes the NWB's obligations to consider such security arrangements as follows:

Arrangements relating to security

76.1 (1) If a licence is in respect of an appurtenant undertaking that is situated, partially or wholly, on Inuit-owned land, the Minister may enter into a written arrangement with the designated Inuit organization and the applicant, licensee or prospective assignee of the license that provides for

(a) the amount of security to be furnished and maintained by the applicant, licensee or prospective assignee, as well as the form and nature and any

¹²³ *Mine Site Reclamation Policy for Nunavut*, 2002, at http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna_1100100036043_eng.pdf.



conditions of the security, for the purpose mentioned in paragraph 76(2)(b) or for the purpose of reimbursing the designated Inuit organization for the costs specified in the arrangement; and

(b) the periodic review of the security, including by taking into account any material changes to the undertaking or the risk of environmental damage, and the adjustment of the amount of the security as a result of the review.

Copy of arrangement to be provided to Board

(2) The Minister shall, as soon as possible after entering into the written arrangement described in subsection (1), provide a copy of it to the Board.

Arrangement to be taken into account under subsection 76(1)

(3) The Board shall take into account the written arrangement when it determines the amount of the security required to be furnished and maintained by the applicant, licensee or prospective assignee under subsection 76(1).

In this case, the Minister of INAC entered into the Whale Tail Pit Security Management Agreement¹²⁴ with the KivIA and Agnico Eagle on September 5, 2017. On September 26, 2017, during the Public Hearing, INAC provided a copy of the Whale Tail Security Management Agreement to the Board as Exhibit 12 for the NWB's consideration in accordance with the requirements of s. 76.1 and to support the Board's determination regarding the amount of reclamation security that should be held under the new Type "A" Water Licence in respect of the Whale Tail Pit Project. Under the terms of the Whale Tail Security Management Agreement INAC and the KivIA agreed to split the total reclamation security required to abandon and reclaim the undertaking (the global security amount), with each agreeing to hold 50% of the total **\$26,286,000**.¹²⁵

¹²⁴ INAC, Exhibit #12, Hard Copy, Whale Tail Security Management Agreement (Final September 5, 2017) Between the Kivalliq Inuit Association, Agnico Eagle Mines Ltd. and Her Majesty the Queen in Right of Canada (represented by the Minister of Indigenous and Northern Affairs) (English), filed NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP----, filed September 26, 2017 (the Whale Tail Security Management Agreement and/or Exhibit #12).

¹²⁵ Exhibit #12, the Whale Tail Security Management Agreement Annex A, Article 5(1).



Whale Tail Security Management Agreement

Consistent with the Board's holistic and practical approach to the assessment of the security required to be held by the Applicant under its Water Licence, the Whale Tail Security Management Agreement (SMA or the Agreement) recognizes that:

WHEREAS both land and water impacts are an integral part of the proponent's reclamation plan and reclamation costs estimate and are considered together holistically by the NWB when it requires the Proponent to furnish and maintain security pursuant to subsection 76(1) of the NWNSRTA;¹²⁶

The Agreement further states that the purpose of the Agreement is as follows:

WHEREAS this Agreement is intended to be an arrangement as contemplated by section 76.1(1) of the NWNSRTA for the purpose of, amongst other things, reimbursing KIA for its costs as permitted by section 76.1(1)(a) of the NWNSRTA, and the NWB must, in accordance with subsection 76.1(3) take this Agreement into account when it determines the amount of security required to be furnished and maintained by the Proponent;¹²⁷

The Agreement specifically addresses the issue of over-bonding by providing under Article 4 that:

The KIA shall not require the Proponent to furnish or maintain additional security that duplicates security furnished and maintained by the proponent with the Minister pursuant to the water licence, and with KIA pursuant to this Agreement.

The Agreement further presented the following proposal under Article 2 of the Agreement to the Board in relation to the amount, form and nature of security to be provided by the Proponent under the Water Licence:

In the course of the Proponent's application to the NWB for a Type "A" Water Licence for the Whale Tail Project, the Proponent shall propose the following, as approved by KIA and the Minister, to the NWB:

¹²⁶ Exhibit #12, Whale Tail Security Management Agreement, Page 2

¹²⁷ Exhibit #12, Whale Tail Security Management Agreement, Page 2



- (a) a reclamation plan that includes a reclamation cost estimate of measures to prevent, counteract, mitigate and remedy adverse effects on persons, property and the environment;*
- (b) to furnish and maintain security of a specified amount, form and nature and subject to specified conditions sufficient to provide for the reclamation costs estimate with respect to land and water;*
- (c) to furnish and maintain half of the security with the Minister and the other half with KIA;*
- (d) that the NWB takes into account this Agreement, pursuant to subsection 767.1(3) of the NWNSRTA, when it determines the amount of security required to be furnished and maintained with the Minister;*
- (e) that the Proponent will not perform work in respect of which security has not been furnished and maintained;*
- (f) that the Proponent will provide evidence to the NWB and the Minister, within 10 days after furnishing security with KIA, showing the amount, form, nature and conditions of the security and that it has been received by the KIA;*
- (g) that the Proponent will provide evidence to the NWB and to KIA, within 10 days after furnishing security to the Minister, showing the amount, form, nature and conditions of the security and that it has been received by the Minister; and*
- (h) the periodic review of security, taking into account any material changes to the project or the risk of environmental damage, and the adjustment of the amount of security as a result of such reviews.¹²⁸*

In association with the proposal of Article 2 as set out above, Article 3 of the Agreement provides:

If the NWB does not impose licence conditions that provide for the matters referred to in Article 2 and that are acceptable to KIA and the Minister, this Agreement shall cease to be binding on the parties.

As set out in Articles 2 and 3 outlined, is clearly the intention of the parties under the Agreement to ensure that the Whale Tail Security Management Agreement is taken into account by the Board and is reflected in any Licence that is issued. While the Board has considered the Agreement and taken the terms of the Agreement into account in developing

¹²⁸ Whale Tail Security Management Agreement, Page 3, Article 2



the terms and conditions in relation to security as set out in Part C of the new Licence, the Board is compelled to remind the parties that the negotiated terms and conditions of a security management agreement are not binding on the Board and do not fetter the Board's discretion to include in a licence any terms and conditions that it considers appropriate.¹²⁹ Similarly, the terms of a security management agreement are also considered by the Board, in the exercise of the Board's discretion to fix the amount of security, but the Board is also required to fix the amount of security to be held under a given licence in accordance with the requirements of the *NWNSRTA* and s. 10 of the *Nunavut Waters Regulations*. Therefore, where appropriate and to the extent of the Board's jurisdiction and authority under the *NWNSRTA* and the *Nunavut Waters Regulations* to do so, the Board has considered all the evidence and submissions provided during the Board's licensing process in respect of the matters listed under Article 2 of the Whale Tail Security Management Agreement, including the written submissions from the KivIA, Agnico Eagle and INAC, in setting the terms and conditions in Part C of the Licence.

Form of Security

Pursuant to s. 76(1) of the *NWNSRTA* and s. 10(3) of the *Nunavut Waters Regulations* S.O.R./2013-69:

10(3) Security must be in the form of

- (a) a promissory note guaranteed by a bank listed in Schedule I or II to the *Bank Act* and made payable to the Receiver General;
- (b) a certified cheque drawn on a bank listed in Schedule I or II to the *Bank Act* and made payable to the Receiver General;
- (c) a performance bond approved by the Treasury Board for the purposes of paragraph (c) of the definition "security deposit" in section 2 of the *Government Contracts Regulations*;
- (d) an irrevocable letter of credit from a bank listed in Schedule I or II to the *Bank Act*; or
- (e) a cash payment.

Amount of Security

A permanent closure and reclamation financial security cost estimate for the Type "A" Water Licence Application was provided by Agnico Eagle within the Interim Whale Tail Closure and Reclamation Plan.¹³⁰ This cost estimate totaled \$19,831,405 and was prepared using the

¹²⁹ Section 70(1) of the *NWNSRTA*.

¹³⁰ Agnico Eagle, Volume 8 – Monitoring, Mitigation and Management Plans, Water Licence Application, June 2016, Appendix 8-F.1: Interim Whale Tail Closure and Reclamation Plan.



RECLAIM Version 7.0 Model, which is in accordance with the *Mine Site Reclamation Policy for Nunavut*.¹³¹

INAC's Submissions on the Amount of Security

In INAC's original technical review comments filed with the Board on March 28, 2017, INAC provided a review of Agnico Eagle's Closure Cost Estimate and also provided an independently prepared closure cost estimate prepared for INAC using the RECLAIM Model. On this basis, INAC concluded that:

The Applicant has provided a reclamation security estimate of approximately \$19 Million. Following a site visit in 2016 and using INAC's Mine Site Reclamation Policy a preliminary detailed reclamation security estimate was produced by ARCADIS (INAC Consultant) with an approximate amount of \$27 Million.

For direct costs, an initial review of both estimates indicates a difference of \$2,806,977. This difference was primarily the result of higher costs calculated by Arcadis for scarifying and decommissioning of waste rock laydown pads for the ore stockpiles and camp infrastructure, costs associated with the mitigation of potential petroleum hydrocarbon concerns, and interim care and maintenance costs.

For indirect costs, an initial review of both estimates indicates a difference of \$4,574,894. This difference was primarily due to the difference in mobilization/demobilization costs, the difference in the direct costs which increased the costs that were calculated on the basis of percentage of direct cost and the post-closure monitoring costs (i.e. 11 vs 25 years).¹³²

At the Public Hearing INAC noted that the parties had been in discussions and subsequently reached an agreement that the "26.3 [million] reclamation value presented by INAC was an

¹³¹ According to the *Policy*:

The recognized methodology for calculating reclamation costs, for the purposes of financial security, should be the RECLAIM or some other appropriate model. Consideration should be given to alternate or innovative forms of security, such as mine reclamation trusts, provided they meet certain criteria that protect the government's interests and objectives.

¹³² Indigenous and Northern Affairs Canada Technical Review Written Submission Agnico Eagle Mines Limited Whale Tail Project - 2AM-WTP---- submitted to Nunavut Water Board, dated March 28, 2017.



acceptable estimate at this point.”¹³³ In particular, INAC summarized the contents of the Whale Tail Security Management Agreement as follows:

The department, Kivalliq Inuit Association, and Agnico Eagle have reached agreement on a reclamation cost estimate. They have also entered into agreement. It's called a security management agreement where it is -- Kivalliq Inuit Association and Indigenous and Northern Affairs would equally hold security. So if the total amount, which is approximately 26.3 million, as per the agreement, Kivalliq Inuit Association and Indigenous and Northern Affairs would each hold 50 percent of that. And because of that security management agreement, the department is recommending to the Board, should they issue this licence, that percent of the agreed-upon reclamation cost estimate be required as financial assurance under the licence.¹³⁴

In this regard, INAC recommended that the Board accept both the total amount of security as set out in the Agreement (approximately \$26.3 million), and also the proportion of security to be required under the Licence to be set at 50% of the agreed-upon reclamation cost estimate

KivIA's Submissions on the Amount of Security

Regarding the amount of security, at the Public Hearing KivIA submitted that as a result of the ongoing discussions between KivIA, Agnico Eagle and INAC the parties had reached agreement on a security estimate in the global amount of \$26,285,926. KivIA stated:

Also, with Indigenous and Northern Affairs Canada, we assessed a security deposit in the total amount of \$26,285,926, the total amount of security deposit. We also work out the security management agreement, who will actually divide this total amount. And practically half of that will be for Indigenous and Northern Affairs Canada, and the other half will be for KIA. The security agreement ensures that the parties will come up to the table to review security, as needed; and, also, in any event of any other eventuality, we can come back to the table with the full total amount of security. And that is being signed by the Kivalliq Inuit Association.¹³⁵

¹³³ K. Costello, INAC, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, p. 232.

¹³⁴ K. Costello, INAC, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 6-22, p. 232.

¹³⁵ L. Manzo, KIA, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 5-17, p. 223.



Agnico Eagle's Submissions on the Amount of Security

At the Public Hearing, Agnico Eagle confirmed its agreement and support of the submissions provided by the KivIA and INAC, requesting the Board to take into account the Whale Tail Security Management Agreement, as follows:

Agnico Eagle has agreed on a security management agreement with Kivalliq Inuit Association and Indigenous and Northern Affairs Canada for the Whale Tail Pit Project. The total costs for security agreed on is \$26,285,926.

In terms of security for closure, Agnico made the following commitment: Agnico Eagle agrees to the treatment of post-closure seepage/runoff until water meets discharge criteria required. Agnico Eagle will also work cooperatively with Indigenous and Northern Affairs Canada and the Kivalliq Inuit Association to develop a framework for reduction in monitoring requirements and associated security amounts.¹³⁶

Security Posted under Current Type B Licences

Additionally, as mentioned in the Licensing History, detailed description of the Type "B" Licences for the Project and in the discussion of Part A (Scope) of the Licence, sections of this decision, the NWB has previously issued three Type "B" Licences to Agnico Eagle authorizing various water uses and waste deposits associated with exploration and advanced exploration, all-weather access road used during exploration, and pre-development activities associated with this Project. For all three existing Type "B" Licences, Agnico Eagle was required to post security with the Minister of INAC, specifically \$603,555 under Water Licence 2BC-WTP1819, \$1,694,000 under Water Licence 8BC-AEA1525, and \$3,883,000 under Water Licence 2BB-MEA1828.

As noted in the discussion under Part A (Scope) of this Licence, upon issuance of the new Type "A" Licence there are activities under these Type "B" Licences that will be incorporated into the scope of the new Type "A" Licence. Consequently, Agnico Eagle may apply to cancel or amend the Type "B" Licences that were incorporated into the scope of the new Type "A" Licences. Alternatively, if the NWB considers it to be in the public interest, the NWB could also initiate cancellation or amendment of the Type "B" Licences to reflect the issuance of the new Type "A" Licence. Upon cancellation of the existing Type "B" Licences and the posting of security under the new Type "A" Licence for reclamation of the

¹³⁶ E. Voyer, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 13-25, p. 144.



full scope of activities authorized under the new Type “A” Licence, Agnico Eagle could apply to the Minister to have the security posted under the existing Type “B” licences returned to Agnico Eagle.

The Board understands that the scope of the new Type “A” Water Licence includes the operation and reclamation of all activities/facilities licensed under the existing Type “B” Water Licences 2BC-WTP1819 and 8BC-AEA1525. During the Public Hearing, Agnico Eagle indicated that:

We had a chance to see that slide in the previous presentation. So this is the map showing the road from Meadowbank to Whale Tail. So the closure and the security includes the component of the Whale Tail Project and also include the component of the Whale Tail haul road...

All these components of the road -- so the road itself, the embankment, as well as the nine bridges and the culvert are included in the global security that Kivalliq Inuit Association, Indigenous and Northern Affairs Canada, and Agnico has agreed on.¹³⁷

As previously indicated by INAC in a similar situation where the scope of existing Type “B” Licences was going to be included in a new Type “A” Water Licence (the Meliadine Gold Mine Project) once the new Type “A” Licence has been issued, the security posted under the existing Type B licences may be returned to Agnico Eagle:

... it is my understanding that the activities that are currently within those "B" licences are rolled up in this Type "A" licence application, and pending approval of the Type "A" licence and confirmation with our inspectors, we would be recommending that we would be okay with the security being released that's attached to those licences.¹³⁸

However, as it is not within the Board’s jurisdiction to release security held under the existing Type “B” Licences that will be included within the scope of the new Type “A” Licence (such security can only be released upon direction the Minister of CIRNA), and recognizing that Agnico Eagle may choose to have some activities remain under the existing Type “B” Licences that will not be included within the scope of the new Type “A” Licence, the Board has not reduced the amount of security to be held under the Type “A” Licence by the

¹³⁷ E. Voyer, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 7-12, lines 22-26 and line 1, pp. 139-140.

¹³⁸ INAC, K. Costello, NWB Public Hearing File No. 2AM-MEL----Agnico, Transcript, February 10, 2016, Volume 1, p. 110.



reclamation security amounts currently held under the existing Type “B” Licences. Although the Board recognizes that this may result in Agnico Eagle temporarily having overlapping security where the scope of the existing Type “B” Licences overlap with the scope of the new Type “A” Licence, once the Type “B” Licences are cancelled or amended to reflect the reduced scope, Agnico Eagle may request the release of this security by the Minister.

Conclusions of the Board Regarding the Amount of Security to be Held under the Licence

Reflecting the jurisdiction of the Board under s. 76 of the *NWNSRTA* and s. 10 of the *Nunavut Waters Regulations* and the requirement of s. 76.1(3) of the *NWNSRTA*, that requires the Board to consider the Whale Tail Security Management Agreement, the Board has taken into account the evidence regarding reclamation liability provided by the parties throughout the Board’s consideration of the Application. This evidence includes, the information provided with the Application, the comments provided during the technical review of the Application and at the Public Hearing and the Agreement between INAC, KivIA, and Agnico Eagle provided to the Board and led as Exhibit #12 at the Public Hearing in determining the amount of the security required to be furnished and maintained by Agnico Eagle under the Licence.

Reflecting the status of information available at the Public Hearing, the Board accepts that security in the global amount of **\$26,286,000**, as proposed by INAC and accepted by KivIA and Agnico Eagle is adequate to ensure the reclamation of the activities and undertakings included in the scope of the new Water Licence, and constitutes the appropriate amount of security to reclaim the undertaking. However, as set out in the Whale Tail Pit Security Management Agreement, Article 6, Item 1, the Board recognizes that only 50% of the global amount, being **\$13,143,000** will be held under the new Type “A” Water Licence 2AM-WTP1826.

On this basis, the NWB has fixed the amount of security Agnico Eagle is required to post under Part C of Type “A” Water Licence 2AM-WTP1826 at **\$13,143,000**.

Periodic Review of the Amount of Security

Under the *NWNSRTA* the Board may include conditions of a licence where it considers this appropriate. Most specifically, s. 76(1) of the *NWNSRTA* gives the Board the authority to establish terms or conditions relating to the furnishing or maintaining of security. As always, the Board’s authority must be exercised in light of its objects, stipulated under s. 35 of the Act.¹³⁹

¹³⁹ Section 35 of the *NWNSRTA* states:

The objects of the Board are to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters or the residents of Nunavut in particular and Canadians in general.



Agnico Eagle, INAC and the KivIA submitted, through the Whale Tail Pit Security Management Agreement, that if a new Type “A” Water Licence were to be issued to the Applicant, the new Licence should include conditions permitting the parties to review and amend the security being held under the Type “A” Water Licence. In particular, paragraph (h) of Article 2 in the Whale Tail Pit Security Management Agreement proposes: “the periodic review of security, taking into account any material changes to the project or the risk of environmental damage, and the adjustment of the amount of security as a result of such reviews.”¹⁴⁰

With respect to provisions requiring the periodic review of the amount of security to be held under the Licence, the Board has considered it appropriate to provide terms and conditions that indicate there are three key circumstances that may trigger the Board’s review and potential adjustment to the amount of security held under the Licence. Firstly, if the Board receives notification that the Whale Tail Pit Security Management Agreement has or will be terminated or has or will otherwise fail, or that there will be a material change to the Whale Tail Pit Security Management Agreement that may affect the amount of security that should be to held under the Licence, the Board may, upon providing notice of the NWB’s intention under the *NWNSRTA*, initiate a review and amendment to the terms and conditions in the Licence relating to security.

Secondly, upon the Board receiving notification and supporting evidence that there is a substantial change in the Project or risk of environmental damage that could result in a material change to the amount of security that should be held under the Licence (including, but not limited to, updates to the reclamation cost estimate arising from unexpected changes or modifications of the Project activities), the Board or parties to the Whale Tail Pit Security Management Agreement may initiate an amendment to the relevant terms and conditions in relation to security to be held under the Licence. Thirdly, for specific periodic reviews of security, the Board has determined that the reclamation cost estimate shall be updated and submitted for the Board’s review and consideration of potential amendments to the security requirements under the Licence within twelve months of starting Operations, and also again when an updated reclamation cost estimate is included within the Final Closure and Reclamation Plan.

The Board did not, however, include any conditions triggering a reduction of security specifically associated with Agnico Eagle’s proposed reductions to water quality monitoring as the Board recognizes that most of the discussion surrounding security and post-closure monitoring will not occur under the eight year term of the new Licence, but rather during the renewal of the new Licence as the project advances into the closure phase. The Board echoes

¹⁴⁰ Whale Tail Security Management Agreement, Page 3, Article 2



the concerns of the parties commenting on the “Water Monitoring Reduction Framework”¹⁴¹ filed by Agnico Eagle at the Public Hearing that fulsome consideration of the reductions to water quality monitoring and security is premature at this point in the process and are best deferred to the time when Agnico Eagle submits an Application to renew the new Licence in 2025..

Part D: Conditions Applying to Construction

The scope of the Application includes the construction of facilities and infrastructure at Whale Tail Pit Site. The construction of proposed facilities and infrastructure under the scope of the Application include the following: open pit; offices; warehouses; accommodation facilities; an explosives production and storage facility; access roads including the upgraded Haul Road between Whale Tail Pit Site and Meadowbank Mine Site; water management facilities (freshwater intake, channels or ditches, collection ponds, retention dikes and berms, sewage treatment plant, wastewater treatment plant, diffuser); waste management facilities (landfill); ore and waste rock storage facilities; a bulk fuel storage facility; borrow pit and quarry sites, and more. The Applicant indicated that prior to the construction of any facility or infrastructure under the scope of the Licence, it will submit to the Board for review, for-construction drawings in advance and as-built drawings after construction.

Based on the information provided in the Application, representations made by various intervening parties and the NWB’s review, the Board has included conditions requiring the Proponent to submit to the Board for review, at least sixty (60) days prior to the construction phase of the project, for-construction drawings, stamped and signed by a qualified professional, for all relevant facilities/infrastructure designed to contain, withhold, divert or retain waters. These shall be accompanied with detailed report(s) to include design rational, requirements, criteria, parameters, construction methods, and monitoring summary and more. However, taking into account the tight construction schedule related to the Whale Tail Dike construction during the open water season in 2018, the Board will accept the Applicant’s submission with drawings for-construction thirty (30) days prior to starting the Whale Tail Dike construction.

After construction, within ninety (90) days of the completion of each structure designed to contain, withhold, divert or retain waters, the Proponent is required under the terms and

¹⁴¹ Agnico Eagle, Exhibit #29, Hard Copy, Memorandum From: C. Prather and D. Filiatrault, To: J. Quesnel, Dated September 26, 201, Water Monitoring Reduction Framework (English), NWB Public Hearing File No. 2AM-MEA1525 and 2AM-WTP---, filed September 27, 2017. (Water Monitoring Reduction Framework or Exhibit #29).



conditions in the Licence to submit a Construction Summary Report including as-built drawings and designs as well as documentation of field decisions that deviated from original plans.

The Board has included conditions requiring the Proponent to undertake geotechnical inspections of facilities/infrastructure designed and constructed to withhold, divert or retain waters in accordance with set intervals as well as adherence to the Canadian *Dam Association Safety Guidelines* for relevant infrastructure/facilities.

The Board has included Effluent quality limits for runoff and/or discharge from drainage management systems, during Construction/Operation of any facilities and infrastructure associated with this project, including laydown areas and the Haul Road, where flow may directly or indirectly enter a Water body.

Effluent quality limits are also included for water to be released into Whale Tail Lake South Basin during dewatering of Whale Tail Lake North Basin. All effluent, exceeding the Effluent quality limits shall be treated prior to release into Whale Tail Lake South Basin.

Part E: Conditions Applying to Water Use and Management

Section 11 of the *NWNSRTA* states “... *no person shall use, or permit the use of, water in Nunavut except in accordance with the conditions of a licence.*”

The Board approves the Applicant’s request to obtain fresh water from Nemo Lake using a fresh water intake and associated structures for domestic camp use, mining and associated uses. The Board also authorizes the Applicant to obtain fresh water from Whale Tail Lake for construction and for the flooding or re-watering of mined-out open pit during the closure phase of Project.

The total volume of water for all purposes obtained from Nemo Lake shall not exceed 175,000 cubic meters during construction and 192,000 cubic meters per year during operation phases, including for camp uses. The Licensee is authorized to obtain water for domestic camp use during construction in 2018 from Whale Tail Lake with a total volume not exceeding 63,150 cubic metres per year from the date on which the Minister approves the issuance of the Licence through to the end 2018.

The total volume of water that may be used for the purposes of explosives mixing and associated use from the unnamed lake shall not exceed 2,400 cubic metres per year from the



date on which the Minister approves the issuance of the Licence to the closure of the undertaking.

The NWB has set out that the total volume of water authorized for use for dust suppression on the road shall not exceed 45,750 cubic metres per year.

The Board has specified that Agnico Eagle shall obtain fresh Water from Whale Tail Lake (North Basin) for mining and associated use (diversion to South Basin), or as otherwise approved by the Board in writing. In addition the Board has prescribed that the total volume of water transferred from Whale Tail Lake South Basin to the open pit and Whale Tail North Basin shall not exceed 10,655,000 cubic meters in the first year of closure phase and 4,500,000 cubic meters per year thereafter, inclusive of any amounts required for ongoing operations through the closure.

The Board requires Agnico Eagle to equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained, and withdraw water at a rate such that fish do not become impinged on the screen.

Water Balance and Water Quality Modeling

The Proponent included within the Whale Tail Pit Water Management Plan a mine site water balance model and results. The water balance model was developed to assist in the evaluation of the proposed water management infrastructure, and estimation of the pumping requirements over the life of the mine (SNC 2015) and under closure conditions (Whale Tail Interim Closure and Reclamation Plan).

Golder Associated Ltd. (Golder) was retained by Agnico Eagle to forecast the probable quality of mine contact water to support Agnico Eagle in the design of water management plans for the Project. The Mine Site and Downstream Receiving Water Quality Predictions¹⁴² for the Project were generated using the GoldSim database management and simulations code combined with baseline data collected from the mine site. A mass balance model was constructed in the GoldSim platform using the operations and post-closure water balance for the site. The model and results are a representation of the mine water and mine waste management plans for the Project.

This report provided a summary of the main mine components relevant to the water quality predictions, including; the Whale Tail Pit, the Waste Rock Storage Facility (WRSF), the

¹⁴² Whale Tail Pit Project submitted to Nunavut Impact Review Board and Nunavut Water Board ; V6 Freshwater Environment Appendix 6-H Mine Site and Downstream Receiving Water Quality Predictions Whale Tail Deposit Project, Meadowbank Division, Golder Associates, dated June 2016.



Attenuation Pond, and temporary stockpiles of construction material and ore. Post-closure water quality is also estimated, and includes water quality predictions for the flooded Whale Tail Pit, the re-flooded Whale Tail Lake, and downstream lakes. The parameters and assumptions adopted in the mass balance model, and a summary of the results were also presented.

The Report provided the following conclusions:

Flooded pit water quality is predicted to exceed Canadian Environmental Quality Guidelines for Aquatic Life (CEQG-AL) for arsenic only; as per NWB Type A Water Licence Part E Item 8 requirements, end pit water quality modelling will be conducted to update these predictions.

The Attenuation Pond predictions for arsenic reflect dilution of inflows from the Whale Tail WRSF pond and Whale Tail Pit sump pond when combined with various runoff contributions having lower arsenic concentrations.

The quality of Whale Tail WRSF drainage during operations, if any is generated, is treated for arsenic to meet Portage effluent. In post-closure, the Whale Tail WRSF pond shows exceedances of the CEQG-AL including cadmium, and fluoride, and more sporadically for chromium, copper, molybdenum, nickel, silver, lead, mercury, selenium, and uranium and shows an exceedance of the Site-specific Water Quality Objective (SSWQO) for arsenic in post-closure.

In post-closure, Whale Tail WRSF contact water quality is conservatively predicted to meet most CEQG-AL parameter concentrations except for arsenic, cadmium, and fluoride. The water qualities in the fully flooded Whale Tail Pit and Whale Tail Lake (North Basin) are predicted to be relatively constant throughout the year. Arsenic concentrations are below the SSWQO in Whale Tail Lake (North Basin) and are suitable for overflow to Mammoth Lake, assuming that diffusion from the pit wall rock will not occur, nor any exchanges between the Whale Tail Pit and above lake water. As per NWB Type A Water Licence Part E Item 6 and 8 requirements, a site wide water balance will be updated as part of the annual water management plan and end pit water quality modelling will be conducted to update these predictions. As per Part E Item 6, dikes



shall not be breached until the water quality in the flooded area meets CEQG-AL, baseline concentrations, or appropriate SSWQOs.¹⁴³

In the KivIA's technical review comments, provided on March 27, 2017, the KivIA expressed concern regarding these predictions, and stated:

The water quality prediction modelling indicates that arsenic will exceed standards in many stages of the project, in particular 1) during operation the total dissolved solids and arsenic are expected to exceed standards, especially in the summer months due to loading, and 2) arsenic will exceed Canadian Environmental Quality Guidelines for Aquatic Life during pit flooding.¹⁴⁴

Similarly, in technical review comments from DFO, also filed on March 27, 2017, DFO indicated these results generated the need for Agnico to provide:

...additional and updated information on the evaluation of end pit lake scenarios, with references, to address concerns regarding the end pit lake scenario. Agnico Eagle concluded that there will be no mixing between the pit water and the overlying water, though no rationale for this key conclusion is provided (either based on other locations, wind impact analysis, or temperature induced mixing).¹⁴⁵

ECCC also observed the following, in ECCC's technical review comment of March 28, 2017:

Clarifying predictions are needed for the pit lake and Whale Tail Lake water quality with respect to the influence of interactions with groundwater. The Proponent should provide mitigation measures to address concerns that may arise if water quality predictions are not accurate.

Clarification is required as to whether using total arsenic concentrations in the modeled water quality of the receiving environment would

¹⁴³ Whale Tail Pit Project submitted to Nunavut Impact Review Board and Nunavut Water Board ; V6 Freshwater Environment Appendix 6-H Mine Site and Downstream Receiving Water Quality Predictions Whale Tail Deposit Project, Meadowbank Division, Golder Associates, dated June 2016

¹⁴⁴ Technical Review of the Environmental Impact Statement for the Whale Tail Project Prepared by Nunavut Tunngavik Inc. and Kivalliq Inuit Association for Nunavut Water Board, dated March 27, 2017.

¹⁴⁵ Matthew Spence, Director General Northern Projects Management Office to Karen Kharatyan A/Manager Licensing, NWB; Re: Technical Comments from Government of Canada for Agnico Eagle Mines Ltd's Whale Tail Pit Project Proposal, NWB File 2AM-WTP dated March 28, 2017, including Dale Nicholson, A/Regional Director General Central & Arctic Region, Fisheries and Oceans Canada to Nunavut Water Board; Re: Whale Tail Pit Project, dated March 27, 2017.



*materially change the predicted maximum arsenic concentrations. Feasibility of using a lower Site-Specific Water Quality Objectives (SSWQO) for total arsenic should be discussed.*¹⁴⁶

INAC also expressed concern regarding these modelling results and provided the following technical review comments in INAC's technical review comment submission of March 28, 2017:

A water quality model was well developed which uses data from the geochemical testing program to estimate the loadings of arsenic and other metals that could leach from the WRSF. However, two issues need still to be addressed:

The predictions incorrectly assume no metal leaching waste will be included in the cover; and

The Mine life may be too short to assess long-term seepage quality as little (if any) seepage may develop during the early years.

*The predictions for post-closure water quality are based on three key assumptions: 1) groundwater from mineralized zones will not enter the pit; 2) the pit walls will not contribute loadings post closure; and 3) waste rock runoff is clean and will not contribute unacceptable metals loadings to surface water receivers post-closure. While these assumptions may eventually be proven to be accurate, INAC considered them to be optimistic and not well supported in the available documentation.*¹⁴⁷

Within Agnico Eagle's responses to comments¹⁴⁸ and during the Technical Meeting, Agnico Eagle made several commitments in respect of the technical issues submitted to the NIRB and NWB by parties in advance of and at the Technical Meeting. On the basis of these commitments, parties subsequently confirmed at the Public Hearing that they were generally satisfied with the responses and commitments provided by Agnico Eagle and that there were no outstanding technical issues arising from the technical review comments that remained to be addressed.

¹⁴⁶ N. John Olyslager, A/Regional Director, ECCC to Karen Kharatyan, A/Manager Licensing; Re: Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Technical Comments on Type A Water Licence Application, dated March 28, 2017.

¹⁴⁷ Indigenous and Northern Affairs Canada Technical Review Written Submission Agnico Eagle Mines Limited Whale Tail Project - 2AM-WTP---- submitted to Nunavut Water Board, dated March 28, 2017.

¹⁴⁸ Jamie Quesnel and Ryan Vanengen Agnico Eagle Mines Limited to Sophia Granchinho, Manager Impact Assessment - NIRB and Karen Kharatyan, Technical Advisor NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ----; Receipt of Technical Review Comment Submissions for the NIRBs Review and NWB Consideration of Agnico Eagle Mines Ltd's " Whale Tail Pit" Project Proposal and associated Water License Application dated April 7, 2017.



As part of the commitments made by Agnico Eagle at the Technical Meeting, Golder performed Sensitivity Analysis on the Site and Receiving Environment Water Quality Model in order to evaluate the potential consequences of the risk of ultimate worst case occurrences actually happening.¹⁴⁹ These analyses of the flooded open pit in water quality modelling represented the scenario where the contingency of removing a portion of the ultramafic (UM) rock in the north wall was undertaken (north wall push back) to decrease the transfer of arsenic to the flooded open pit.

The Sensitivity Analyses provided that the effects of a north wall push back within the Pit would remove 50% or more of the arsenic-leaching UM rock from the pit walls, and placement of this rock in the Waste Rock Storage Facility (WRSF) could be expected to result in:

- 20% improvement in water quality for WRSF contact water, in the flooded pit and Whale Tail Lake North Basin in post-closure;
- Flooded pit lake and Whale Tail North Basin would be predicted to remain below the Site Specific Water Quality Objective (SSWQO) of 0.025 mg/L;
- Lower arsenic loading to downstream lakes post-closure; and
- Though the risk for diffusion is low, in the event that it does occur, arsenic concentrations within the flooded pit would increase at a slower rate.

In its final submission of February 6, 2018, Agnico Eagle¹⁵⁰ confirmed that the north wall pushback would be the preferred design over the original base case:

The north wall push back is determined to be economically viable and to be minable within the same period as the base case without the north wall push back. The increased pit size results in a slightly longer flooding period than the base case presented in Golder (2017) but faster than the flooding time of the first version of the model (EIS Volume 6, Appendix 6-H) where dyke breach occurred in June 2029. The dike breach with and without the north wall push back occurs June 2028 and June 2026 respectively. Given the leachability of the north wall ultramafic rock, placement of this waste rock on land is estimated to be the most viable

¹⁴⁹ Golder Associates Technical Memorandum: Addendum to Agnico Eagle Mines Whale Tail FEIS Appendix 6-H. Sensitivity Analyses of Water Quality Modeling in support of Responses to Technical Commitments 30, 36, 37 and 42 and Interveners Comments ECCC#15 and INAC TRC #3 and #5, on the Water Licence A Application to the Nunavut Water Board, dated July 10, 2017.

¹⁵⁰ Jamie Quesnel and Ryan Vanengen, Agnico Eagle Mines Limited to Karen Kharatyan, A/Manager Licensing, NWB; Re: Whale Tail Pit Final Responses: Updated February 6, 2018 per Hearing Commitment to Nunavut Water Board, dated February 6, 2018.



closure alternative for this material rather than placed back into the open pit for flooding. In the WRSF, the ultramafic rock will be mixed with low-leaching waste rock, and leaching will be controlled in the long term via water infiltration through encapsulation underneath a low-leaching waste rock cover and a frozen core.

The results of the north wall pushback have been documented in a report submitted to ECCC and INAC (Golder 2017). It indicated a 20% decrease in the maximum total and dissolved arsenic concentration in the WRSF pond during operation (no change once the cover is placed at closure) and a similar decrease in long term arsenic concentration in the flooded pit and North Whale Tail Lake water quality prior to breaching the Mammoth Lake dike. Consequently, the north wall push back scenario will also improve downstream lake water quality, reflecting the lower arsenic concentration in the flooded North Whale Tail Lake water that will flow into Mammoth Lake upon dike breaching.

In INAC's final comment submission of March 19, 2018, INAC stated:

*INAC recommends that the Applicant conduct detailed hydrodynamic modelling to evaluate the mixing of WRSF seepage discharges to Mammoth Lake during the post-closure phase of the project. The modelling should evaluate a range of potential seepage discharge scenarios (clean/contaminated cover, increased active zone depth, etc.). Any results from the modelling should be incorporated into the appropriate monitoring plan for review and approval. The results of the additional studies should be submitted for review prior pit construction. Updated Monitoring and Management Plans will be submitted 4 months prior to operations.*¹⁵¹

With respect to flooded pit water quality INAC stated:

The Proponent shall conduct a hydrogeological characterization study plan to validate hydraulic gradients and verify the potential for arsenic diffusion from submerged Whale Tail pit walls. The results of the hydrogeological studies shall be provided for review on an annual basis.

¹⁵¹ Ian Parsons, Manager Water Resources, Indigenous and Northern Affairs Canada to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.



If warranted, the pit design shall be revised and/or appropriate mitigation measures should be developed to incorporate the results from the additional studies. The Proponent shall report the results of the hydrogeological characterization and their implications to the pit design and relevant management plans for review prior to pit construction.

*Should results of modelling suggest that arsenic diffusion may result in elevated concentrations in the flooded pit post closure, the Proponent shall perform detailed hydrodynamic modelling of the flooded pit lake prior to closure to evaluate meromixis and flooded pit lake water quality. The results of modelling shall be provided for review prior to pit closure.*¹⁵²

INAC also highlighted that Agnico Eagle had committed to conduct field work to further define the hydrogeological characterization and to submit the results of this additional work at least 4 months prior to operations, which would correspond to pit development.

With respect to a specific term and condition capturing these commitments, INAC indicated that:

*...the term and condition should reflect the temporal commitments made by the proponent that hydrodynamic modeling and hydrogeological characterisation studies be completed prior to the initiation of excavation of the deposit and construction of the WRSF. Finally, INAC is of the opinion the timeline proposed for updating management plans every two years following operation is inappropriate giving the short operational life of the mine. INAC recommends the updates should be completed every 12 months.*¹⁵³

In addition, INAC recommended that when applicable management plans are updated, the updates should include, but not be limited to:

Hydrogeological modelling and characterization of the pit that reduces uncertainty surrounding the possibility of elevated arsenic concentrations in the pit fill water;

¹⁵² Ian Parsons, Manager Water Resources, Indigenous and Northern Affairs Canada to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.

¹⁵³ Ian Parsons, Manager Water Resources, Indigenous and Northern Affairs Canada to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.



Models of Water Quality in pit lake;

The plan should define (confirms) the pits flow gradients. The applicant needs to provide confidence that there are no discharge flow gradients in the pit and specifically within the ultramafic areas of the pit. If this is the case then there could possibly be a problem with elevated arsenic concentrations;

The plan should include confirmation if stratification will occur in the pit lake and weather that stratification is stable and will contain elevated arsenic water below the thermocline (within the lower strata);

Monitoring program that verifies predictions and helps inform an adaptive management strategy if necessary; and

These management plans are to include a section describing/detailing mitigation measures (adaptive management program) that can mitigate and manage a scenario in which fill water does contain elevated levels of arsenic that is both feasible and can be conducted over a reasonable time frame (not over the very long term).¹⁵⁴

In Agnico Eagle's final responses of March 26, 2018,¹⁵⁵ Agnico Eagle generally agreed with INAC's final recommendations to:

Conduct detailed hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake post-closure to evaluate the effects on water quality in Mammoth Lake. This will be completed for scenarios of cover contamination with north wall ultramafic rock previously considered (Golder 2017¹⁵⁶) and for active layer depth ranges observed at Meadowbank WRSF;

Conduct detailed hydrogeological characterization studies to evaluate the hydraulic gradients and further assess the potential for arsenic diffusion of the pit walls. Data will be collected during construction and operation to verify inputs to water quality modelling. The results will inform hydrogeological modelling and will be conducted to inform future closure and post-closure water quality predictions. Should results

¹⁵⁴ Ian Parsons, Manager Water Resources, Indigenous and Northern Affairs Canada to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.

¹⁵⁵ Jamie Quesnel and Ryan Vanengen, Agnico Eagle Mines Limited to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- License – Final Comments dated March 26, 2018.

¹⁵⁶ Golder Associates Technical Memorandum: Addendum to Agnico Eagle Mines Whale Tail FEIS Appendix 6-H. Sensitivity Analyses of Water Quality Modeling in support of Responses to Technical Commitments 30, 36, 37 and 42 and Interveners Comments ECCC#15 and INAC TRC #3 and #5, on the Water Licence A Application to the Nunavut Water Board, dated July 10, 2017.



of the hydrogeological modelling suggest that arsenic diffusion may result in elevated concentrations in the flooded pit in post-closure, then hydrodynamic modelling of the flooded pit lake will be performed to assess the occurrence and stability of meromixis;
Commit to updating the water quality model and water management plan every 12 months; and
Integrate the hydrodynamic, hydrogeological and pit water quality modeling, monitoring, adaptive management strategy and mitigation measure components into the updated management plans.

Agnico Eagle also stated Agnico Eagle's intentions that the required management plans would be submitted on May 15th, 2018, which Agnico Eagle estimated to be two months prior to the start of dike construction. Agnico Eagle was advised that by May 15th, 2018 the Licence will likely not be issued/or approved so while the May 15th submission date is not critical at this stage, Agnico Eagle will work with Intervener to make sure that these submissions address all concerns raised by INAC.

The Board notes that as the new Water Licence 2AM-WTP1826 was not yet issued by the NWB and is not in force until approved by the Minister, the Board's ability to follow up with respect to these information submissions is limited at present. Therefore, the Board has included a Licence term and condition, requiring Agnico Eagle to submit the information stated above within 2 months of the date on which the Minister approves of the issuance of the Licence. The Board understands that this will still be many months prior to operations scheduled to start by mid- 2019. As such, assuming that Agnico Eagle provides the information in accordance with the term and condition, the Board and parties will have sufficient time to review the information and make recommendations.

The Board has also required Agnico Eagle to submit an updated Water Management Plan within 60 days of the Minister's approval of the Licence. The updated Water Management Plan that shall include the following studies and results:

- Hydrogeological characterization study to validate the hydraulic gradient and potential arsenic diffusion scenarios;
- Pit wall Arsenic diffusion modelling;
- Evaluation of the evolution of permafrost under the flooded pit, in response to the creation of a pit lake;
- Hydrodynamic modelling of flooded Whale Tail Pit Lake post closure and Hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake



post closure with respect to Arsenic concentrations within the flooded Whale Tail Pit and Mammoth Lake.

It should be noted that the results of these studies may also require updating of other management plans such as Water Quality and Flow Monitoring Plan, ARD and Metal Leaching Plan and Whale Tail Pit Waste Rock Management Plan, and it is expected that Agnico Eagle shall submit the required updates to these plans also within 60 days of the Minister's approval of the Licence.

The Board concurs with parties and believes that periodically re-running the water quality model and updating predictions using the current monitoring data for total metals and other parameters is important in order to inform both operational and closure planning, especially given the short operational phase of Project. The Board requires that annual updates of Water Balance and Water Quality Modelling be included within the annual updates to the Water Management Plan. All updated Water Quality Modelling shall take into account data from the hydrogeological characterization that Agnico Eagle shall complete to evaluate the hydraulic gradients and further assess the potential for arsenic diffusion of the pit walls. The Hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake post-closure shall also be part of the annual update to Water Quality Modelling.

The Board also requires that during the closure phase the predicted water quantity and quality within the pit be compared to the measured water quantity and quality to ensure that pit water quality meets CCME limits and is protective of aquatic biota, prior to breaching water retention structures.

Under this part of the new Licence, the Board also requires Agnico Eagle to carry out weekly inspections of all water management structures during periods of flow, to include this information in the annual update of Water Management Plan, and to maintain records for review upon the request of an Inspector.

This part also specifies that Agnico Eagle must provide at least thirty (30) days' notice to the NWB and Inspector prior to the start of re-flooding of pit.

Part F: Conditions Applying to Waste Disposal and Management

The Board has included conditions in the new Licence to ensure that the main types of waste and/or effluent generated by the Project do not negatively impact the freshwater receiving



environment. The following lists the wastes, facilities and/or activities that are within the NWB's waste deposit mandate and are included within the scope of the new Licence:

- Waste Rock and Overburden Storage Facility (WRSF) ;
- Landfill;
- Bulk Fuel Storage and Containment Facility; and
- Mine Contact Water; and
- Sewage.

In addition, the Board has included amendments to the existing terms and conditions under Part F of the amended Licence No. 2AM-MEA1526 to address changes to the existing Tailings Storage Facility at the Meadowbank Mine site, as discussed under a separate heading below.

Waste Rock and Overburden Storage Facilities under the new Licence

The Project mining facilities at the Whale Tail Pit include two ore stockpiles; one overburden stockpile; and one Waste Rock Storage Facility (WRSF) to receive waste rock and waste overburden.

One area, located to the northwest of the mine infrastructure, north-west of the open pit has been identified as the Whale Tail WRSF. Waste rock and overburden will be trucked to the Whale Tail WRSF until the end of mine operations, with distribution according to the operations schedule. Waste rock and overburden will be co-disposed of together in one of the two piles constituting the Whale Tail WRSF area. Closure of the Whale Tail WRSF will begin when practical, as part of the progressive reclamation program. The Whale Tail WRSF will be covered with non-potentially acid generating and non-metal leaching waste rock, to promote freezing as a control strategy against acid generation and migration of contaminants. Thermistors will be installed within the Whale Tail WRSF to monitor permafrost development.

During the technical review stage INAC¹⁵⁷ identified concerns related to the availability of clean cover material. Additional information provided by the Applicant clarified that sufficient cover material is available to meet all current project needs and potential contingencies. As a result, INAC indicated that concerns regarding this issue had been addressed.¹⁵⁸

¹⁵⁷ Technical Review Written Submission Agnico Eagle Mines Limited Whale Tail Project - 2AM-WTP----; Indigenous and Northern Affairs Canada submitted to Nunavut Water Board, March 28, 2017.

¹⁵⁸ Ian Parsons, A/Manager Water Resources, Nunavut Regional Office to Karen Kharatyan, A/Manager Licensing, NWB; RE: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues, dated October 17, 2017.



In its final response submission of August 28, 2017 in advance of the Public Hearing, Agnico Eagle indicated that the WRSF would contain approximately 30% Potentially Acid Generating (PAG) rock (chert and central greywacke), and also indicated that the PAG rock will be placed at centre of the pile. The Applicant also indicated that thermal modelling analysis determined that a 3.8 m cover thickness would be required at closure for the Whale Tail WRSF.¹⁵⁹

In its final technical submission, ECCC¹⁶⁰ raised questions regarding waste rock segregation and testing, thermal monitoring of waste rock and seepage management and monitoring. In Agnico Eagle's final response submission of August 28, 2017, the Applicant committed to updating the models with monitoring data obtained throughout the construction and operation phases in order to validate predictions.

In INAC's technical review submission of March 28, 2017, INAC requested that Agnico Eagle's thermal modelling should be calibrated and re-run using ground temperature monitoring data from the Meadowbank site.¹⁶¹

With respect to WSRF Seepage Management INAC concluded in INAC's final written submission to the NWB following the Public Hearing:

*to manage the low probability but high consequent scenario of water quality from the WRSF being above set criteria as proposed by the applicant at closure and post closure, INAC recommends i) that the waste rock management plan be revised and updated to include more frequent waste rock sampling to provide improved confidence that cover contamination is not occurring, and ii) the monitoring plan for the WRSF and associated attenuation pond be updated to include WRSF seepage monitoring criteria that must be met before AEM considers breaching the dike/dam of the associated attenuation pond.*¹⁶²

¹⁵⁹ Jamie Quesnel and Ryan Vanengen Agnico Eagle Mines Limited to Sophia Granchinho, Manager Impact Assessment - NIRB and Karen Kharatyan, Technical Advisor NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Final Written Submission Responses for the Review of Agnico Eagle Mines Ltd's "Whale Tail Pit", dated August 28, 2017.

¹⁶⁰ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Written Submission, dated August 14, 2017.

¹⁶¹ Technical Review Written Submission Agnico Eagle Mines Limited Whale Tail Project - 2AM-WTP----; Indigenous and Northern Affairs Canada submitted to Nunavut Water Board, March 28, 2017.

¹⁶² Ian Parsons, A/Manager Water Resources, INAC to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018 at p. 2.



In Agnico Eagle's response to final written submissions, filed with the Board in August 2017,¹⁶³ Agnico Eagle agreed with the recommendation to update the model to provide more accuracy and confidence in the Final WRSF cover design and also proposed to update the model with the stabilized thermistor data obtained from the Meadowbank WRSF in the fall of 2017 after 2 full years of data collection from the strings installed in 2015. Agnico Eagle also accepted INAC's recommendation to include the WRSF cover design as part of closure.

Agnico Eagle also proposed that specifics to modelling updates, waste rock monitoring frequency, sampling locations, water quality triggers and reporting frequency be detailed in revisions to the Management Plans that will be submitted 60 days prior to operations.

The next update of Whale Tail Pit Waste Rock Management Plan to be submitted within sixty (60) days of the Licence being approved by the Minister and the updated Plan shall include,:

- details of the steps involved in waste rock management planning to segregate and store waste rock in its correct location;
- details of periodic inspection and sampling of:
 - waste rock targeted for use as cover material to verify and document the composition of the material; and
 - the south wall and north wall ultramafic rock to verify and document total and leachable arsenic content;
- water quality monitoring at specified locations and frequency to document waste rock contact water quality; and
- details of thermistor installation and data collection from existing and new instrumentation to be installed as the waste rock pile is built.

It should be noted that no direct discharge from the WRSF Pond into the receiving environment is authorized during the term of the new Licence. Seepage and runoff water from the WRSF during the construction and operation phases is required to be pumped to Whale Tail Attenuation Pond where the contact water will be treated by the Water Treatment Plant (WTP) prior to discharging to the receiving environment.

¹⁶³ Jamie Quesnel and Ryan Vanengen Agnico Eagle Mines Limited to Sophia Granchinho, Manager Impact Assessment - NIRB and Karen Kharatyan, Technical Advisor NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Final Written Submission Responses for the Review of Agnico Eagle Mines Ltd's "Whale Tail Pit", dated August 28, 2017.



Landfarm

The Applicant indicated that no new landfarms were proposed to serve the Project at either the site of the existing Meadowbank Mine, nor at the Whale Tail Pit, noting that “...all petroleum hydrocarbon contaminated soil/snow will be transported for bioremediation to the approved Meadowbank Mine Landfarm.”¹⁶⁴

Landfill

A landfill will be required for the disposal of non-salvageable, non-hazardous, non-putrescible solid wastes from the construction, operation, and closure of the Project. No municipal facilities or services for waste disposal will be used.

According to “Whale Tail Pit Landfill and Waste Management Plan”, dated January 2017, the proposed landfill will be located within the Whale Tail WRSF. The landfill will be filled progressively and in an orderly manner. Drainage from the landfill is expected to freeze within the WRSF with little to no seepage water collecting in the WRSF pond or collection infrastructure. However, in the event there is leachate from the landfill due to periods of heavy rainfall or during spring freshet, the runoff will be collected in the WRSF Pond and pumped to the Whale Tail Attenuation Pond for further management.

Bulk Fuel Storage and Containment Facility

The Board has included Effluent quality limits for the water that could be discharged onto land from the Whale Tail Bulk Fuel Storage Facility’s secondary containment area. Any proposed Effluent that exceeds Effluent quality limits (tested prior to any discharge) shall be treated prior to release onto land or shall be transferred to Whale Tail Attenuation Pond.

Sewage

Sewage will be collected from the camp and change-room facilities and pumped to the Sewage Treatment Plant (STP). The objective of the STP is to treat sewage to an acceptable level prior to discharge to the Whale Tail Attenuation Pond, via a sewage water discharge pipeline.

The Licensee shall direct all sludge removed from the Sewage Treatment Plant and Water Treatment Plant (WTP) to the Waste Rock Storage Facility (WRSF).¹⁶⁵

¹⁶⁴ Nunavut Water Board General Water Licence Application, Table 2: Quantity and Quality of Waste Involved (Block 15) submitted by Ryan Vanengen, Agnico Eagle Mines Limited, dated June 30, 2016.

¹⁶⁵ Jamie Quesnel, Environmental Superintendent and Ryan Vanengen, Amaruq Permitting Lead, Agnico Eagle to Sophia Granchinho, Manager Impact Assessment, NIRB and Karen Kharatyan, Technical Advisor, NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Final Written Submission Responses for the Review of Agnico Eagle Mines Limited’s “Whale Tail Pit” Project Proposal, dated August 28, 2017.



The Board requires Agnico Eagle to submit to the Board for approval, at least ninety (90) days prior to the construction/installation of facilities, an Operation and Maintenance Manual(s) for the Wastewater Treatment Plant(s), including for the STP and the Manual(s) shall be prepared in accordance with the *Guidelines for the Preparation of an Operating and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories (1996)*.

Sludge

The Licensee is required to direct all sludge removed from the Sewage Treatment Plant and Water Treatment Plant to the Waste Rock Storage Facility or the Tailings Storage Facility or to the Landfarm as a nutrient amendment as recommended by ECCC.

During construction of the Whale Tail and Mammoth Dikes, water will be treated using the dewatering water treatment plant prior to discharge to the environment.¹⁶⁶ Also as agreed to by Agnico Eagle the Whale Tail Dike and Mammoth Dike will be constructed with the best available practices and that the potential for the release of Total Suspended Solids (TSS) will be controlled by using a combination of three types of mitigation measures: causeway, turbidity curtains and pump and treat.

However, the Board recognizes that during the Whale Tail Dike construction scheduled to commence in the summer of 2018, the WRSF will not yet be used for the disposal of sludge from the water treatment plant. Consequently, until the WRSF is available for sludge disposal, Agnico Eagle is planning discharge the sludge onto land through small permeable rockfill berms system to mitigate the potential sediment accumulation in Whale Tail Lake. The sludge will be discharged at a distance of 100m from the Whale Tail Lake Shore and the sludge stream will reach the Whale Tail Lake in between the Whale Tail Dike turbidity barriers. Agnico Eagle is required to follow the “Water Quality Monitoring and Management Plan for Dike Construction and Dewatering” that is designed to prompt the deployment of appropriate mitigation measures to control the release of Total Suspended Solids (TSS) into the environment and to reduce the potential for unacceptable changes to water levels in the receiving environment.

Mine Contact Water

As proposed by Agnico Eagle, the NWB requires that all contact water from the major mine infrastructure will be diverted and/or collected in the collection ponds then discharged/pumped into Whale Tail Attenuation Pond, including the runoff water from the

¹⁶⁶ Water Quality Monitoring and Management Plan For Dike Construction and Dewatering Version 1; January 2017.



open pit and the seepage and runoff water from the WRSF and Ore stockpiles. The only direct discharge of contact water during the term of this Licence will be from Whale Tail Attenuation Pond to Mammoth Lake via the Mammoth diffuser, if the Effluent discharge criteria are met.

During technical review of the Application, Environment and Climate Change Canada (ECCC) identified and proposed Effluent Quality Criteria (EQC) for parameters in addition to the *Metal Mining Effluent Regulations* (MMER) in order to include parameters which may vary due to modeling uncertainty and/or parameters which carry environmental concerns. Agnico Eagle submitted proposed Effluent Quality Criteria (EQCs) on June 7, 2017 for review by ECCC. Through discussions with the Proponent via email, telephone, and in-person, effluent quality criteria were agreed upon by both parties. Following the Public Hearing, in ECCC's October 17, 2017 submission to the Board, ECCC stated:

*The email exchange occurred on August 24, 2017 when the Proponent had updated the effluent quality criteria for iron, lead, and zinc. ECCC indicated that in addition to these three parameters, effluent quality criteria should be developed for ammonia, total dissolved solids, cadmium, and mercury. The telephone discussion occurred on August 28, 2017 to discuss all effluent quality criteria and the in-person meeting occurred on September 25, 2017 in Baker Lake to finalize the effluent quality criteria for Mercury.*¹⁶⁷

As indicated in Agnico Eagle's February 6, 2018 submission to the Board,¹⁶⁸ Agnico Eagle and ECCC agreed on the EQC in addition to the *MMER* parameters. It was also indicated that *"as suggested by ECCC, cyanide and radium-226 are not expected to occur in effluent, but will be monitored under MMER and as such do not need to be included in the Water Licence."*

Reflecting these discussions and recommendations, the Board has included EQC in addition to *MMER* parameters, as discussed and agreed to by ECCC and Agnico Eagle, at the final discharge point, which is the end of pipe of the Wastewater Treatment Facility from the Whale Tail Attenuation Pond. Cyanide and Radium 226 have not been included as monitor parameters under the new Licence as advised by ECCC.

¹⁶⁷ Melissa Pinto, Sr. Environmental Assessment Coordinator, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: RE: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, dated October 17, 2017.

¹⁶⁸ Jamie Quesnel and Ryan Vanengen, Agnico Eagle Mines Limited to Karen Kharatyan, A/Manager Licensing, NWB; Re: Whale Tail Pit Final Responses: Updated February 6, 2018 per Hearing Commitment to Nunavut Water Board, dated February 6, 2018.



Discharge Criteria have also been included for water that could be discharged onto land from the Bulk Fuel Storage Facility's secondary containment area.

Tailings Storage Facility (TSF) under the Amended Water Licence No. 2AM-MEA1526

As noted above, Agnico Eagle is proposing to process the ore from the Whale Tail Pit using the processing infrastructure at the Meadowbank Mine site, including the use of the mill and storage of tailings within the footprint of the existing Meadowbank Tailings Storage Facility. The proposed open pit mine, mined by truck-and-shovel operation, will produce 8.3 million tonnes (Mt) of ore, 46.1 Mt of waste rock, and 5.6 Mt of overburden waste. According to the Whale Tail Pit Life of Mine (LOM) calculation, the addition of the Whale Tail Pit to the actual Meadowbank LOM (LOM 2015) will generate an addition of approximately 8.3 Mt (dry) of additional tailings being deposited in the Meadowbank Tailings Storage Facility (TSF) for a total of 35.4 Mt stored within the Meadowbank Tailings Storage Facility.¹⁶⁹

The approved Meadowbank Tailings Storage Facility (TSF) is delineated by a series of dikes that are already built (as well as additional dikes proposed to be built as part of the Whale Tail Pit Project) around and across the basin of the dewatered northwest arm of Second Portage Lake. The TSF is divided into the North and South Cells. From 2010 to 2015 tailings were placed in the North Cell. The North Cell of the TSF is delineated by the Stormwater Dike (separates North and South Cells), Saddle Dams 1 and 2 and perimeter rock-fill road structures. Tailings deposition commenced in the South Cell in 2014 and will continue until 2018 when mine operations at the Meadowbank Mine are scheduled to cease (North Cell deposition was completed in 2015). The South Cell is delineated by the Central Dike and Saddle Dams 3, 4 and 5. The division of the TSF into cells allows tailings management in comparatively smaller areas with shorter beach lengths that reduce the amount of water that is trapped and permanently stored as ice. Operation in cells also allows progressive closure and cover trials to begin in the North Cell (2014-2016) while tailings deposition continues in the South Cell.

To store the full volume of tailings from processing of the Whale Tail Pit ore, Agnico Eagle proposed to maximize the storage in the South Cell through the deposition of approximately 5.3 Mt within the Meadowbank TSF structure. Agnico Eagle is also proposing to construct a new internal dike structure to store the remaining 3 Mt within the current footprint of the North Cell.

¹⁶⁹ Meadowbank Tailings Storage Facility Management Plan for WhaleTail Pit, dated January 2017, and submitted to Nunavut Water Board on January 25, 2017.



In the Application, Agnico Eagle stated that a Thermal Monitoring Plan (TMP) had been developed to observe the freezback of the TSF in order to comply with the existing terms and conditions of Water Licence No. 2AM-MEA1525. The existing Licence requires a TMP to monitor temperatures of the TSF during and after, mining operations. These activities will continue during the operation of the Meadowbank TSF to store tailings originating from the Whale Tail Pit through to eventual closure of the Meadowbank TSF.

In INAC's technical review comments, INAC highlighted the need to confirm that the TSF is capable of handling increased tailings deposition from the Whale Tail Pit project.¹⁷⁰ INAC also recommended that the Applicant evaluate whether or not the *additional deposition of tailings from the Whale Tail Pit Project will result in any significant cumulative impacts. The evaluation should include a quantitative assessment of tailings chemistry, seepage potential and the geotechnical stability of the Meadowbank TSF.*

In the response to comments of April 7, 2017 Agnico Eagle referred INAC to Agnico Eagle's letter to the NWB dated January 25, 2017 and the supporting documentation provided, which included an updated Tailings Management Plan entitled "Appendix WT – Meadowbank Tailings Storage Facility Management Plan for Whale Tail Pit" (Agnico Eagle 2017) which was specifically developed to address INAC's original information request/comment and provides details to reflect the additional tailings storage from Whale Tail Pit. Agnico Eagle indicated that:

both Meadowbank and Amaruq tailings streams are potentially acid generating and leach arsenic. Although information to date suggests that Whale Tail Pit tailings may have a higher total and leachable arsenic, the Tailings Management Plan and closure concepts designed for Meadowbank remain unchanged; they will continue to be effective in managing leachability and preventing acidification in the long-term. Agnico Eagle is committed to on-going research program with the Université du Québec en Abitibi-Témiscamingue (UQAT), geotechnical and water quality monitoring at the TSF to validate its performance or

¹⁷⁰ Matthew Spence, Director General Northern Projects Management Office to Karen Kharatyan A/Manager Licensing, NWB; Re: Technical Comments from Government of Canada for Agnico Eagle Mines Ltd's Whale Tail Pit Project Proposal, NWB File 2AM-WTP dated March 28, 2017, including Ian Parsons, Manager Water Resources, Indigenous and Northern Affairs Canada to Karen Kharatyan, A/Manager Licensing, NWB; Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, dated March 19, 2018.



implement the necessary corrective actions to meet TSF performance.

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The Board has found the updated “Meadowbank Tailings Storage Facility Management Plan for Whale Tail Pit” referenced above to be acceptable and has recommended approval of the Plan within the amendment to Water Licence 2AM-MEA1525 (now Water Licence 2AM-MEA1526).

Within the Application¹⁷² for consequential amendments to Water Licence to 2AM-MEA1525 the Applicant proposed to update the definition of Tailings Storage Facility and Central Dike, to read respectively:

“Tailings Storage Facility” means the facility designed to permanently contain the solid fraction of the mill tailings as described in the approved Meadowbank Tailings Management Plan. The Facility includes structures and future facilities reviewed by the Meadowbank Dike Review Board and described in the approved Meadowbank Tailings Management Plan.

“Central Dike” means the structure, designed to isolate the south cell portion of the Meadowbank Tailings Storage Facility for the purpose of retaining tailings as described in the approved plans and reviewed by the Meadowbank Dike Review Board.

No parties objected to these updated definitions, and the Board has included the updated definitions for “Tailings Storage Facility” and “Central Dike” within the amended Meadowbank Water Licence 2AM-MEA1526.

Part G: Conditions Applying to Modifications

¹⁷¹ Jamie Quesnel and Ryan Vanengen Agnico Eagle Mines Limited to Sophia Granchinho, Manager Impact Assessment - NIRB and Karen Kharatyan, Technical Advisor NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ----: Receipt of Technical Review Comment Submissions for the NIRBs Review and NWB Consideration of Agnico Eagle Mines Ltd’s “ Whale Tail Pit” Project Proposal and associated Water License Application dated April 7, 2017.

¹⁷² Jamie Quesnel and Ryan Vanengen Agnico Eagle Mines Limited to Karen Kharatyan, Technical Advisor NWB; Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : NWB Consideration of Agnico Eagle Mines Limited’s “ Whale Tail Pit” Project Proposal and revised Water License Applications (2AM MEA-1525 Amendment Application and New license 2AM WTP ---), dated May 25, 2017.



Although the provisions of Part G, Item 1 do allow the Applicant to carry out certain types of “modifications” (as defined in the Licence) without consent from the Board, it should be noted that pursuant to Articles 11, 12 and 13 of the *Nunavut Agreement* and as set out in Part G of the new Licence, a proposed modification submitted under this Licence may require consideration by the Nunavut Planning Commission (NPC) and assessment by the Nunavut Impact Review Board (NIRB). It is the responsibility of the Licensee to notify and consult with the NPC and the NIRB to ensure the requirements of the *Nunavut Agreement* and the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 are met prior to submitting a notification of modification to the NWB under the Licence.

Further, modifications that do not meet the criteria of Part G, Item 1 may require written permission from the NWB. Without written consent from the NWB, the Applicant is not allowed to carry out modifications. Changes that do not meet the definition of modification under the Licence or the requirements of Part G would be considered to be amendments to the Licence. The Board requires that such changes would be subject to the requirements of the Type “A” water licence amendment process, including potentially requiring a public hearing before the Board considers the amendment as required under the *NWNSRTA* and the *Nunavut Waters Regulations*.

Part H: Conditions Applying to Emergency Response and Spill Contingency Planning

The development and implementation of measures to respond to spills and other emergencies are fundamental to ensuring that any potential unpredicted adverse effects on the environment from Project activities are prevented and/or minimized. Accordingly, the Applicant submitted an Emergency Response Plan (ERP), a Spill Contingency Plan (SCP) and Hazardous Materials Management Plan (HMMP) as part of the Application. These Plans identify potential emergencies that could arise while carrying out the undertaking and provides a procedural framework for responding to those emergencies.

The purpose of this Emergency Response Plan (ERP) is to provide a consolidated source of information for management, employees, contractors, and site visitors to respond quickly and efficiently to any emergency that may occur at the Whale Tail Pit operations. This ERP addresses transportation and related activities at the Whale Tail Pit site; it covers construction, operations and closure of Whale Tail Pit and is an Appendix to the approved Meadowbank ERP. The ERP is a working document and following the approval of the Whale Tail Pit, the ERP will be reviewed annually, or more frequently as required, to ensure compliance with applicable legislation.



The purpose of the HMMP is to provide a consolidated source of information on the safe and environmentally sound transportation, storage, and handling of the major hazardous products that are used at the Meadowbank Mine (including the proposed Whale Tail satellite open pit). In combination with Agnico Eagle's ERP and SCP, the HMMP provides instruction on the prevention, detection, containment, response, and mitigation of accidents that could result from handling hazardous materials. As described within the HMMP all hazardous materials to be used at the Meadowbank and Whale Tail operations will be manufactured, delivered, stored, and handled in compliance with all applicable federal and territorial laws and regulations. Agnico Eagle is committed to preventing, to the greatest extent possible, both inadvertent release of these substances to the environment and accidents resulting from mishandling or mishap.

The goal of the SCP is to minimize the impacts of spills by establishing predetermined lines of response and plans of action, and to protect the safety of workers and contractors in the event of a spill. The SCP has been designed to facilitate effective communication and the efficient clean-up of potentially hazardous materials spills. Substances covered by the SCP include:

- Hydrocarbon liquids such as diesel fuel, aviation fuel (Jet-A), gasoline, hydraulic oil;
- Soluble solids such as ammonium nitrate prill;
- Soluble liquids, such as glycols, acids, paints; and
- Corrosive liquids such as sulphuric acid and corrosive solids such as sodium cyanide.

The Board is satisfied with the Proponent's commitment to update the ERP, HMMP and SCP Plans regularly to reflect any changes to Project specific protocols, plans of actions, teams, and management contact information.

Part I: Conditions Applying to General and Aquatic Effects Monitoring

As previously noted, s. 73 of the *NWNSRTA*¹⁷³ requires the NWB to set conditions at least as stringent as conditions prescribed by regulation pursuant to ss. 36(5) of the *Fisheries Act*. Furthermore, for the purpose of ensuring compliance with the licence or regulations, an Inspector designated by the Minister may inspect or examine works, waters or waste and exercise other powers according to the *NWNSRTA*.¹⁷⁴ For the purpose of monitoring, the

¹⁷³ Section 73 of the *NWNSRTA* states:

Where the Board issues a licence in respect of any waters to which regulations made under subsection 36(5) of the *Fisheries Act* apply, any conditions in the licence relating to the deposit of waste in those waters shall be at least as stringent as the conditions prescribed by those regulations.

¹⁷⁴ See ss. 85-94 of the *NWNSRTA*.



NWB may include conditions in the licence regarding monitoring programs to be undertaken.¹⁷⁵

The following monitoring plans were include as part of Application:

- Aquatic Effects Management Program (AEMP), Version 3 (November 2015);
- Core Receiving Environment Monitoring Program (CREMP), Version WT (June 2016);
- Whale Tail Pit Water Quality and Flow Monitoring Plan, Version 1 (January 2017);
- Whale Tail Pit Water Quality Monitoring and Management Plan for Dike Construction and Dewatering, Version 1 (January 2017); Groundwater Monitoring Plan, Version WT (Jan. 2016);
- Quality Assurance/Quality Control (QA/QC) Plan, Version 3 (October 2015).

Agnico Eagle indicated that the restructured Aquatic Effects Management Program (AEMP) (Version 3, December 2015) is an update of the AEMP that was originally included as part of the Final Environmental Impact Statement provided during the NIRB's Review of the Meadowbank Mine Project in 2005 (Cumberland 2005a). The NWB and INAC provided comments in 2008 and 2009, and requested that a restructured AEMP should be issued, which required Agnico Eagle to propose a new approach. A restructured AEMP was presented in draft to the NWB in March 2-3, 2010 in Yellowknife. The restructured AEMP was approved by the NWB and then reviewed as part of the Type "A" Water Licence renewal in 2015.

*This restructured AEMP serves as an overarching 'umbrella' that conceptually provides an opportunity to integrate results of individual, but related, monitoring programs in accordance with the Type A Water Licence requirements. The plan includes review of each of the underlying monitoring programs, including the Core Receiving Environment Monitoring Program (CREMP), the cornerstone broad-level lake and receiving environment monitoring program, the reviews of the inter-linkages among the component programs, the development of a Management Response Plan for the AEMP (that is to be implemented following the integration of results for each component program), and the outline of the expected structure and content for the annual AEMP report beginning in 2013.*¹⁷⁶

¹⁷⁵ See s. 70(1)(c) of the *NWNSTRA*.

¹⁷⁶ Agnico Eagle Mines Limited, Aquatic Effect Management Program, Version 2, Dec. 2012, submitted to the NWB on August 5, 2014 as part of the Application for Renewal of Water Licence 2AM-MEA0815.



The Applicant indicated that no changes are planned for the AEMP at this time.

As part of Application, the Proponent submitted the “Core Receiving Environment Monitoring Program (CREMP): 2015 Plan Update- Whale Tail Pit Addendum”. The CREMP 2015 Plan was updated to include the Whale Tail Pit. The updated CREMP addresses how monitoring of the receiving environment for the Project fits into the existing Meadowbank/Baker Lake CREMP program. As indicated by Applicant in the CREMP 2015 Plan, the study design is based on a before-after-control-impact (BACI) approach, but has also incorporated the concept of gradients in exposure; and the study design mirrors the approved Meadowbank’s CREMP:

The CREMP study design was tailored to target the identification of effects related to Agnico Eagle’s activities, particularly to those which have the potential to affect the aquatic receiving environment, which are: Dike construction, dewatering, water discharge to Mammoth Lake after treatment, and dust from general site-related activities (e.g., road building, pit blasting, ore and waste hauling, ground preparation, vehicle traffic, and infrastructure construction)...

The study design is based on a before-after-control-impact-(BACI) approach, incorporating the concept of gradients in exposure. This is accomplished through the application of a temporal/spatial trend assessment that includes application of quantitative decision criteria (i.e., early warning “triggers” and action “thresholds”), to facilitate immediate and objective decision-making regarding appropriate management actions. The CREMP is intended to detect changes at a basin or lake scale of inference and help to define the extent (both spatially and temporally) of any adverse effect identified. This information is integrated annually into the AEMP for holistic environmental management and decision making.

As a requirement of the Type “A” water licensing process, a Water Quality and Flow Monitoring Plan (WQFMP) was developed as a component of the Aquatic Effects Management Program (AEMP) and is closely associated with the Water Management Plan. The WQFMP summarizes the monitoring locations, sampling frequency, monitoring parameters, compliance discharge criteria and an adaptive management plan for water quality at the Whale Tail Pit Project. During the licensing process, based on the parties’ recommendations, the WQFMP was updated, with a revised version being released in



January 2017, and updated again in May 2017. The revised WQFMP includes 2 stations in Whale Tail Lake North Basin during post closure (ST-WT-9, and ST-WT-10); one in the pit and one in the Attenuation Pond area as recommended by DFO.

During the Public Hearing, the Applicant agreed that as part of the WQFMP during the closure phase, Agnico Eagle could also do stratified monitoring of the pit/lake being flooded:

In the closure scenarios, this area here is going to be flooded. And under that scenario, we're certainly interested under the -- once it's flooded, and while we're flooding, we'd be interested in doing that stratified monitoring, and that we could make exceptions on the water quality and flow plan during closure. That seems fair.¹⁷⁷

The Whale Tail Pit's Regulated discharge monitoring program (Final Discharge Point ST-WT-2) is based on *MMER* requirements, which includes characterization of toxicity testing and stipulates standard decision criteria for management actions. Additional Effluent Quality Criteria (EQC) are included by the Board at the Final Discharge Point as recommended by ECCC and agreed to by Agnico Eagle. It should be noted that Cyanide and Radium226 are not included as regulated parameters as per ECCC's recommendation: "*cyanide and radium 226 are not expected to be detected at the mine. Although radium226 will be required under the Metal Mining Effluent Regulations (MMER), they would not have to be included in a water licence.*"¹⁷⁸

Agnico Eagle is required to develop and implement the Waste Rock Storage Facilities Thermal Monitoring Program that will be detailed in the future update of the Waste Rock Management Plan. The Applicant will be expected to use the information and analyses collected at Meadowbank Mine site when developing and implementing this program, as agreed to by Agnico Eagle during the licensing process.

The Board agrees that at the Closure phase of the Project, closure criteria for breaching of pit lake dikes will be based on appropriate standards in place at that time, such as the Canadian Council of Ministers of the Environment (CCME) *Water Quality Guidelines for the Protection of Freshwater Aquatic Life*. The Board recognizes that during the current term of the Licence no dikes will be breached.

¹⁷⁷ R. Vanengen, Agnico Eagle, NWB Public Hearing, File No. 2AM-WTP----, Transcript, September 26, 2017, Volume 1, lines 23-26 and lines 1-4, pp. 136-137.

¹⁷⁸ Susanne Forbrich, Regional Director, ECCC to Karen Kharatyan, A/Manager of Licensing, NWB; Re: "AEM-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit project – FinalWritten Submission", dated August 14, 2017.



Part I: Conditions Applying to Abandonment, Reclamation and Closure

The Board requires all Type “A” Water Licence applicants to prepare an Interim, and eventually, a Final Closure and Reclamation Plan in accordance with the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT (2013)* (Guidelines)¹⁷⁹ and consistent with the *INAC Mine Site Reclamation Policy for Nunavut, 2002*¹⁸⁰ (Policy).

As clearly outlined by the Board in the Shear Diamonds Licence Renewal Decision:

The Board’s approach to reclamation reflects the four main objectives outlined in the Policy:

*The Mine Site Reclamation Policy*¹⁸¹ *for Nunavut serves four main objectives:*

- *Ensure the impact of mining on the environment and human health and safety is minimized;*
- *Reduce the environmental liability that falls to government to the greatest extent possible;*
- *Provide industry and the public with a clear signal of the government’s expectations; and*
- *Build positive and supportive relationships with the new regulatory authorities coming into operation in the North.*¹⁸²

With respect to the specific components of the plans, the Board adopts the approach put forward in the *Guidelines* that recognizes that there are three stages in the development of a Closure and Reclamation Plan (CRP). The first stage involves the preparation of a Preliminary Closure and Reclamation Plan that is typically prepared as part of the environmental assessment of the project that demonstrates “how the mine site is proposed to be reclaimed and describes the likely residual risks to human health and the environment”.

¹⁷⁹ Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT* (2013) available on-line:

https://mvlwb.com/sites/default/files/documents/wg/WLWB_5363_Guidelines_Closure_Reclamation_WR.pdf.

¹⁸⁰ Minister of Indian Affairs and Northern Development, (Ottawa: Minister of Public Works and Government Services Canada, 2002) *Mine Site Reclamation Policy for Nunavut*, available on-line: <https://www.aadnc-aandc.gc.ca/eng/1100100036042/1100100036044>

¹⁸¹ Minister of Indian Affairs and Northern Development, (Ottawa: Minister of Public Works and Government Services Canada, 2002), *Mine Site Reclamation Policy for Nunavut*, p. 2.

¹⁸² Nunavut Water Board, Reasons for Decision: 2AM-JER1119 Type A – Licence Renewal at pp. 66-68.



The second stage involves the development of one or more Interim Closure and Reclamation Plans through the operating life of the mine, which builds on the Preliminary CRP, and is updated to reflect significant changes to the mine plan or key milestones in terms of the mine life.

As stated in the *Guidelines*:

The general purpose of the Interim CRP is to update preceding plans according to the current mine operating plan, updated or renewed community values, or advances in mine reclamation technology. Interim Reclamation Plans provide conceptual detail on the reclamation of mine components which will not be closed until near the end of the mining operations, and operational detail for components which are to be progressively reclaimed earlier in the mine life. The Interim CRP should include increased detail and more specific closure criteria regarding reclamation components as these become available and as those areas of the mine are developed (e.g. rock piles that are completed or reclamation test studies that have been conducted).¹⁸³

The third stage involves the preparation of a Final CRP that should be provided and approved before a scheduled permanent closure takes place, or as soon as is practical after an unplanned closure. The general purpose of the Final CRP is to provide complete details, usually for regulatory approval, regarding the proposed reclamation activities such that they can be subsequently implemented.¹⁸⁴ The new Licence requires the filing of a Final Closure and Reclamation Plan at least twelve (12) months prior to the closure of the mine.

Agnico Eagle included an Interim Closure and Reclamation Plan (ICRP) as part of the Application. The ICRP was originally prepared as an addendum to the existing ICRP and financial security for Meadowbank Mine. The document indicates that the ICRP was prepared as required in the Guidelines, and that:

The ICRP will be updated through the detailed design and operational phases of the Project, as new information (such as monitoring results) become available. The Project ICRP describes the plan to carry out the

¹⁸³ Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT* (2013), at p. 22.

¹⁸⁴ Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT* (2013), at pp. 24-26.



required closure activities, and to establish self-sustaining ecosystems with land uses similar to pre-development conditions. Progressive closure activities will take place during mining. Areas that have been disturbed by mining will be reclaimed once operations in that area are complete. If operations stop temporarily with the intent of resuming mining activities in the near future, the Project site would be placed in a care and maintenance phase. The Project may need to shut down for a short-term or indefinitely (long-term) due to economic, environmental and/or social factors. The plans for both of these closure periods are discussed in this ICRP.¹⁸⁵

Descriptions are provided for the three main stages of closure for the Project, and the activities that will take place during each stage are listed.

- *Progressive Reclamation Stage* that will involve reclamation of the WRSF through cover placement will occur progressively. Active care, maintenance, and monitoring will be required for the reclaimed areas of the WRSF throughout this stage.
- *Closure Stage* that will involve the removal of the non-essential site infrastructure and back-flooding of the dewatered area to re-establish the original water level of the Whale Tail Lake will occur. The dewatered Whale Tail Pit area will be back-flooded in two phases: 1) back-flood the pit area; and 2) back-flood to 152.5 m (the original lake water level). Active care, maintenance, and monitoring will be required for the decommissioned and remaining facilities throughout this stage.
- *Post-Closure Stage* that will commence as the Closure Stage is completed and will include continued monitoring and maintenance to be carried out at a reduced frequency, depending on the results of the monitoring and measures of success selected for closure.

Although the Board is generally satisfied with the Agnico Eagle commitment the ICRP will be updated through the detailed design and operational phases of the Project, as new information (such as monitoring results) become available, the Board has included a requirement to update the ICRP for Board's approval within twelve (12) months of Operations, and the Board requires that the updated ICRP must consider all of the mine related components and the Whale Tail Haul Road.

The Board has also included a requirement to Agnico Eagle to notify the Board in writing, as soon as practically possible, and in any event, at least sixty (60) days prior to entering into

¹⁸⁵ Agnico Eagle, Volume 8 – Monitoring, Mitigation and Management Plans, Water Licence Application, June 2016, Appendix 8-F.1: Interim Whale Tail Closure and Reclamation Plan at p. 3.



a Care and Maintenance Phase. A Care and Maintenance Plan shall also be submitted to the Board within thirty (30) days of Agnico Eagle providing a notification of intent, and the Plan shall detail the Licensee's plans for maintaining compliance with the Terms and Conditions of the Licence during Care and Maintenance.

Suggested closure and reclamation planning and reporting requirements through the life of a mine are outlined in the documents *Mine Site Reclamation Guidelines for the Northwest Territories (2007) or (the 2007 Guidelines)*¹⁸⁶ and *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.¹⁸⁷ As set out in both of these Guidelines, after the permanent closure of a mine and when reclamation activities are finalized, a post-closure monitoring period is recommended. Following this initial post-closure monitoring period, the post-closure monitoring may be extended at the discretion of regulators. The Guidelines note that this longer-term post-closure monitoring will likely be required for projects, where some individual components may remain at site in perpetuity, such as mine tailings, underground structures, etc., which must be further monitored to ensure stability and full reclamation.

Schedules A through J

Schedules provide instructive detail to the conditions appearing in more general terms in the main body of the Licence and are spelled out in this format for greater clarity and as an aid to interpretation for the Licensee. Except for Schedule A, the Schedules provide, if needed, specific requirements for plans or reports to be submitted to the Board.

If the Board subsequently determines that an item in any of the Schedules requires revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon consulting and providing written notice to the Licensee and intervening parties, revise the Schedule. Unless the Board directs otherwise, such revision may not necessarily be considered as an "Amendment" to the Licence.

¹⁸⁶ Indian and Northern Affairs Canada, (Yellowknife: Indian and Northern Affairs Canada, 2007) available on-line:

http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-NWT/STAGING/texte-text/msr_1320177195268_eng.pdf.

¹⁸⁷ Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT* (2013), at p. 22.



APPENDIX A - Agendas for Public Hearing and Community Session

AGENDA

PUBLIC HEARING

TYPE "A" WATER LICENCE APPLICATION NO. 2AM-WTP----

September 26, 2017, 9:00 am – 5:00 pm, CST, Baker Lake Community Hall

September 27, 2017, 9:00 am – 5:00 pm, CST, Baker Lake Community Hall

-
1. Opening Prayer
 2. Opening Remarks by the Chairperson, which shall include the purpose of the Hearing and the scope of matters which will be considered by the Board
 3. Introduction of the Board Members and staff
 - a. Application History
 4. Identification and introduction of the Parties
 5. Introduction of the Elders and their role in the Hearing
 6. Introduction and identification of the persons, associations, agencies, etc., who have not submitted interventions but who have expressed a desire to speak at the Hearing
 7. Identification of any Motions or any objections
 8. Presentation by the Applicant
 9. Questioning of the Applicant by Parties respecting the Applicant's presentation
 10. Questioning by the Board staff and Panel Members



11. Presentation by Interveners
12. Questioning of Interveners by Parties
13. Questioning by the Board staff and Panel Members
14. Presentation by any other persons, associations, agencies, etc. who have advised the Chairperson that they wish to speak
15. Questioning of other persons, associations, agencies, etc. by Parties
16. Questions by the Board staff and Panel Members
17. Upon completion of presentations by all Parties, the Board will give the Applicant the opportunity to reply. Then all Parties will have the opportunity to make final closing statements taking into account matters raised at the Hearing
18. Closing Remarks by the Chairperson; and
19. Closing Prayer



AGENDA

COMMUNITY SESSION

TYPE “A” WATER LICENCE APPLICATION NO. 2AM-WTP----

September 26, 2017, 7:00 pm -10:00 pm, CST, Baker Lake Community Hall

1. Opening Prayer
2. Opening Remarks by the Chair
3. Presentation by the Nunavut Water Board (NWB) – Type “A” water licensing process for the Application (15 minutes)
4. Questions and/or comments from community members and other participants
5. Presentation by Agnico Eagle Mines Limited on the Application before the Board for Type “A” Water Licence 2AM-WTP---- (20 Minutes)
6. Questions and/or comments from community members and other participants
7. Presentation from each intervening party pertaining to its mandate and role(s) in the water licensing process as well as an overview of their findings during their technical review (15 Minutes/Intervener)
8. Questions and/or comments from community members and other participants
9. Closing Remarks
10. Closing Prayer



APPENDIX B – Exhibit List

Whale Tail Pit Water Licence Applications, 2AM-WTP---- and 2AM-MEA1525 **Public Hearing, September 26 and 27, 2017**

Exhibit	Exhibit Description	Date	From
1	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part i - Introduction and overview (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
2	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part ii - Public Participation (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
3	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 3 - Waste Disposal and Management (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
4	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 4 - Water Use and Management (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
5	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 5 - Abandonment, Reclamation, Closure and Security (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.



Exhibit	Exhibit Description	Date	From
6	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 6 - Accidents and Malfunctions (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
7	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 7 - Management Plans and Monitoring Programs (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
8	Hard Copy Correspondence to K. Kharatyan (NWB) and copy to S. Granchinho (NIRB) from Agnico Eagle Re: NIRB File No. 16 MN056 Application No: 124683/ NIRB File No. 2AM WTP ---- Dated May 25, 2017 (English)	September 26, 2017	Agnico Eagle Mines Ltd.
9	Hard Copy Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ---- (English)	September 26, 2017	Agnico Eagle Mines Ltd.
10	Hard Copy Meeting Notes Indigenous and Northern Affairs Canada, Agnico Eagle and Golder Associates Ltd. Golder Document No. 145, dated September 14, 2017 (English)	September 26, 2017	Agnico Eagle Mines Ltd.
11	Hard Copy Indigenous and Northern Affairs Canada Reclaim Estimate for Whale Tail Pit Project Arcadis Revision 6 – 11 September 2017 (English)	September 26, 2017	Indigenous and Northern Affairs Canada



Exhibit	Exhibit Description	Date	From
12	Hard Copy Whale Tail Security Management Agreement (Final September 5, 2017) Between the Kivalliq Inuit Association, Agnico Eagle Mines Ltd. and Her Majesty the Queen in Right of Canada (represented by the Minister of Indigenous and Northern Affairs) (English)	September 26, 2017	Indigenous and Northern Affairs Canada
13	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Part 8 - Meadowbank Licence Amendment; and Part 9 - General – Annual Reporting Commitments, Terms, Linkage to other Licences (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
14	Electronic Copy Only PowerPoint Presentation Nunavut Water Board (NWB) Community Presentation Regarding an Application for a new Type “A” Water Licence 2AM- WTP ---- Whale Tail Pit Project (English/Inuktitut)	September 26, 2017	Nunavut Water Board
15	Hard Copy PowerPoint Presentation Whale Tail Pit: The Future of the Meadowbank Division Community Information Session Introduction and Overview (English/Inuktitut)	September 26, 2017	Agnico Eagle Mines Ltd.
16	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mine Ltd.’s Whale Tail Pit Nunavut Water Board Public Hearing Community Presentation (English)	September 26, 2017	Indigenous and Northern Affairs Canada



Exhibit	Exhibit Description	Date	From
17	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mine Ltd.'s Whale Tail Pit Nunavut Water Board Public Hearing Community Presentation (<i>Inuktitut</i>)	September 26, 2017	Indigenous and Northern Affairs Canada
18	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mine Ltd.'s Whale Tail Pit Nunavut Water Board Public Hearing Community Presentation (<i>French</i>)	September 26, 2017	Indigenous and Northern Affairs Canada
19	Hard Copy PowerPoint Presentation Environment and Climate Change Canada's Presentation to the Nunavut Water Board Respecting the Whale Tail Pit Project Type A Water Licence Application Community Session (<i>English/Inuktitut</i>)	September 26, 2017	Environment and Climate Change Canada
20	Hard Copy PowerPoint Presentation Fisheries and Oceans Canada Nunavut Water Board Community Round Table Session (<i>English/Inuktitut</i>)	September 26, 2017	Fisheries and Oceans Canada
21	Hard Copy PowerPoint Presentation Fisheries and Oceans Canada Nunavut Water Board Community Round Table Session (<i>French</i>)	September 26, 2017	Fisheries and Oceans Canada
22	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Nunavut Water Board Public Hearing (<i>English</i>)	September 27, 2017	Indigenous and Northern Affairs Canada



Exhibit	Exhibit Description	Date	From
23	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Nunavut Water Board Public Hearing (<i>Inuktitut</i>)	September 27, 2017	Indigenous and Northern Affairs Canada
24	Hard Copy PowerPoint Presentation Indigenous and Northern Affairs Canada Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Nunavut Water Board Public Hearing (<i>French</i>)	September 27, 2017	Indigenous and Northern Affairs Canada
25	Electronic Copy Only Updated PowerPoint Presentation (Exhibit #22) Indigenous and Northern Affairs Canada Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Nunavut Water Board Public Hearing (<i>English</i>)	September 27, 2017	Indigenous and Northern Affairs Canada
26	Hard Copy PowerPoint Presentation Environment and Climate Change Canada's Presentation to the Nunavut Water Board Respecting the Whale Tail Pit Project Type A Water Licence Application Public Hearing (<i>English/Inuktitut</i>)	September 27, 2017	Environment and Climate Change Canada
27	Hard Copy PowerPoint Presentation Fisheries and Oceans Canada Nunavut Water Board Final Hearing (<i>English/Inuktitut</i>)	September 27, 2017	Fisheries and Oceans Canada
28	Hard Copy PowerPoint Presentation Fisheries and Oceans Canada Nunavut Water Board Final Hearing (<i>French</i>)	September 27, 2017	Fisheries and Oceans Canada



Exhibit	Exhibit Description	Date	From
29	Hard Copy Memorandum From: C. Prather and D. Filiatrault To: J. Quesnel Dated September 26, 2017 Water Monitoring Reduction Framework (English)	September 27, 2017	Agnico Eagle Mines Ltd.
30	Hard Copy Update to Exhibit 9 Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ---- Appendix A Agnico Eagle's Proposed Commitments (English)	September 27, 2017	Agnico Eagle Mines Ltd.

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APPENDIX E - List of Submissions and Correspondence

Application Submissions:

1. Cover letter and initial submission of application for water licence by Agnico Eagle Mines Limited (Agnico Eagle) dated **June 30, 2016**.
- 2.
3. Submitted by Agnico Eagle, Volume 1 Project Description Whale Tail Pit Project Meadowbank Division dated **May 31, 2016**.
4. Submitted by Agnico Eagle, Whale Tail Document Layout dated **June 30, 2016**.
5. Submitted by Agnico Eagle, Supplementary Technical Information for Whale Tail Pit Project Volumes 1-8, submitted **June 30, 2016**
6. Submitted by Agnico Eagle, Technical Memorandum Groundwater Quality Investigation, Amaruq, Nunavut, Golder Associates (Golder), dated **November 15, 2016**.
7. Submitted by Agnico Eagle, Whale Tail Pit Project Completeness Review Response to Comments, dated **December 7, 2016**.
8. Submitted by Agnico Eagle, Whale Tail Pit Operations Winter Noise Level Predictions and Harvesting/Cultural Sites, Golder, submitted **January 20, 2017**.
9. Submitted by Agnico Eagle, Whale Tail Pit Project: Predicted Changes in Fish Mercury Concentrations in the flooded area of Whale Tail Lake (South Basin), dated **February 28, 2017**.
10. Submitted by Agnico Eagle, Habitat Compensation Monitoring Plan, dated **February 28, 2017**.
11. Submitted by Agnico Eagle, Conceptual Whale Tail Lake (North Basin) Fishout Work Plan, dated **February 28, 2017**.
12. Submitted by Agnico Eagle, prepared by Golder Associates, Whale Tail Pit – Caribou Monitoring Workshop #2 Summary, dated **March 21, 2017**.
13. Submitted by Agnico Eagle, Technical Memorandum Whale Tail Lake Channel – Option 2, Golder, dated **March 22, 2017**.
14. Submitted by Agnico Eagle, Information Update Regarding Agnico Eagle Mines Ltd's "Whale Tail Pit" Project, Errata to Appendix 6-1, dated **March 24, 2017**.
15. Submitted by KivIA and Nunavut Tunngavik Inc. (NTI), Technical Review of The Environmental Impact Statement for The Whale Tail Project, dated **March 27, 2017**.
16. Submitted by DFO, FISHERIES AND OCEANS CANADA, Technical Review Comments to the Nunavut Impact Review Board (NIRB) Whale Tail Pit Project, dated **March 28, 2017**.



17. Submitted by INAC, Technical Review Written Submission Agnico Eagle Minels Limited Whale Tail Project – 2AM-WTP----, dated **March 28, 2017**.
18. Submitted by ECCC, Technical Comments Executive Summary in French and Inuktitut, dated **March 28, 2017**.
19. Submitted by WATERS (INAC), Technical Comments Executive Summary in French and Inuktitut, dated **March 28, 2017**.
20. Submitted by Agnico Eagle, Agnico Eagle Mines Limited – Meadowbank Division WHALE TAIL PIT FINAL TECHNICAL COMMENT RESPONSES April 2017, dated **April 7, 2017**.
21. Submitted by Agnico Eagle, prepared by Golder Associates, Whale Tail Viewshed Analysis, dated **April 18, 2017**.
22. Submission from Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Mine, Community Information Session, dated **April 19, 2017**.
23. Submitted by DFO (English, Inuktitut, French) Whale Tail Project Presentation to the Nunavut Impact Review Board and Nunavut Water Board Pre-Hearing Conference, dated **April 21, 2017**.
24. Submitted by DFO (English, Inuktitut, French) Whale Tail Project Presentation to the Nunavut Impact Review Board and Nunavut Water Board Technical Meeting, dated **April 21, 2017**.
25. Submitted by ECCC (English, Inuktitut, French) Environment and Climate Change Canada's Presentation Respecting Agnico Eagle Mines Ltd. Whale Tail Pit Project Environment Impact Statement and Type A Water Licence Application, Community Round Table, dated **April 21, 2017**.
26. Submitted by ECCC (English, Inuktitut, French) Environment and Climate Change Canada's Presentation Respecting Agnico Eagle Mines Ltd. Whale Tail Pit Project Environment Impact Statement and Type A Water Licence Application, Technical Meeting, dated **April 21, 2017**.
27. Submitted by GN (English, Inuktitut, French) GN review of Agnico Eagle Mines' "Whale Tail Pit" project, Pre-hearing Conference, dated **April 21, 2017**.
28. Submitted by GN (English, Inuktitut, French) GN review of Agnico Eagle Mines' "Whale Tail Pit" project, Technical Meeting, dated **April 21, 2017**.
29. Submitted by INAC, Agnico Eagle Mines Ltd's Whale Tail Pit Project, Pre-Hearing Conference, dated **April 21, 2017**.
30. Submitted by INAC, Agnico Eagle Mines Ltd's Whale Tail Pit Project, Technical Meeting, dated **April 21, 2017**.



31. Submitted by Natural Resources Canada (NRCAN) (English, Inuktitut, French), Natural Resources Canada's Pre-hearing Conference and Community Roundtable Presentation: Agnico Eagle Mines (Agnico Eagle) Whale Tail Project, dated **April 21, 2017**.
32. Submitted by Natural Resources Canada (NRCAN) (English, Inuktitut, French), Natural Resources Canada's Technical Meeting Presentation: Agnico Eagle Mines (Agnico Eagle) Whale Tail Project, dated **April 21, 2017**.
33. Submitted by Transport Canada (TC) (English, Inuktitut) Transport Canada Presentation of Technical Submission for Agnico Eagle Mines Limited Whale Tail Pit Project, dated **April 21, 2017**.
34. Submitted by Agnico Eagle (English, Inuktitut) Whale Tail Pit The Future of Meadowbank Mine (12 parts), Technical Meetings, dated **April 24, 2017**.
35. Submitted by Agnico Eagle, prepared by Golder Associates, Whale Tail Pit – Caribou Monitoring Workshop #2 Summary, dated **April 24, 2017**.
36. Submitted by Agnico Eagle, Whale Tail – FEIS and Type A Technical Comment response to Health Canada, dated **April 25, 2017**.
37. Submitted by KivIA, Executive Summary Technical Report Whale Tail (English, Inuktitut), dated **April 25, 2017**.
38. Submitted by KivIA and NTI, KivIA-NTI Whale Tail Gold Project Technical Review of the Environmental Impact Statement, dated **April 25, 2017**.
39. Submitted by INAC (English, Inuktitut, French) Agnico Eagle Mines Ltd's Whale Tail Pit Project, Pre-Hearing Conference, dated **April 26, 2017**.
40. Submitted by INAC (English, Inuktitut, French) Agnico Eagle Mines Ltd's Whale Tail Pit Project, Technical Meeting, dated **April 26, 2017**.
41. Submitted by NWB (English, Inuktitut) Nunavut Water Board (NWB) Community Session Presentation Regarding Application for a new Type "A" Water Licence 2AM-WTP--- Whale Tail Pit Project Technical Meeting/Pre-hearing Conference, dated **April 26, 2017**.
42. Submitted by Transport Canada (TC) (French) Transport Canada Presentation of Technical Submission for Agnico Eagle Mines Limited Whale Tail Pit Project, dated **April 26, 2017**.
43. Submitted by KivIA and NTI, KivIA-NTI Whale Tail Gold Project Technical Review of the Environmental Impact Statement (FINAL), dated **April 27, 2017**.
44. Submitted by Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Division Part ii – Response to Technical Comments Technical Meetings – Day 1 – April 28, 2017, dated **April 29, 2017**.



45. Submitted by Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Division (Corrected) Part ii – Response to Technical Comments Technical Meetings – Day 1 – April 28, 2017, dated **April 29, 2017**.
46. Submitted by the Government of Nunavut (GN), Agnico Eagle Mines “Whale Tail Pit” project, Government of Nunavut: Technical Review, Technical Meeting April 28-29, 2017 Baker Lake, NU, dated **April 29, 2017**.
47. Submitted by Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Division Part ii – Response to Technical Comments Technical Meetings – Day 1 – April 28, 2017, (Corrected Version) dated **April 30, 2017**.
48. Submitted by Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Division Part vi – Response to Technical Comments Technical Meetings – Day 1 – April 28, 2017, (Corrected Version) dated **April 30, 2017**.
49. Submitted by Agnico Eagle, Agnico Eagle Inform/Consultation with Coral Harbour – Shipping & Whale Tail Pit Project, dated **May 1, 2017**.
50. Submitted by Agnico Eagle, Baker Lake HTO Q1 Meeting with Agnico Eagle February 10, 2017 Meadowbank, dated **May 1, 2017**.
51. Submitted by Agnico Eagle, Agnico Eagle Mines: Amaruq and Whale Tail Pit, Traditional Knowledge Consultations, February 3-5 2016 – Baker Lake Nunavut, dated **May 1, 2017**.
52. Submitted by Agnico Eagle, Proposed All-weather Exploration Road from the Meadowbank Mine to the Amaruq Site – Baseline Traditional Knowledge Report Version 2 – December 2014, dated **May 1, 2017**.
53. Submission, Whale Tail Pit Longitudinal Cross Section with Inferred Resource, dated **May 1, 2017**.
54. Submitted by Agnico Eagle, Whale Tail Pit The Future of the Meadowbank Mine, Community Information Session, dated **May 1, 2017**.
55. Submitted by Hamlet of Baker Lake, Deputy Mayor Opening Remarks, Pre-hearing Conference, dated **May 1, 2017**.
56. Submitted by KivIA and NTI (English, Inuktitut), Whale Tail Gold Project KivIA-NTI Technical Review of the Environmental Impact Statement, dated **May 1, 2017**.
57. Submitted by NWB/NIRB, Technical Meeting Commitments List, dated **May 2, 2017**.
58. Submitted by Agnico Eagle, Whale Tail Pit Water Quality and Flow Monitoring Plan, Version 2, dated **May 24, 2017**.
59. Submitted by Agnico Eagle, NWB New Water Licence Application Form, Whale Tail Pit, dated **May 25, 2017**.



60. Submitted by Agnico Eagle, NWB Water Licence Amendment Application Form, Meadowbank, dated **May 25, 2017**.
61. Submitted by Agnico Eagle, Summary of Agnico Eagle Mines Ltd's "Whale Tail Pit" Project Proposal and revised Water License Applications (2AM-MEA1525 Amendment Application and New license 2AM-WTP----) (English and Inuktitut) dated **May 25, 2017**.
62. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 34 – Nemo Lake Water Balance, dated **June 19, 2017**.
63. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 17 Fish-Out Diving Waterbird Protection Plan, dated **June 22, 2017**.
64. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 29 – Cross Section Schematic, dated **June 23, 2017**.
65. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 7 – Comparison of Vault Pit Haul Road Observations of Road Dust to Whale Tail EIS Haul Road Predictions, dated **June 27, 2017**.
66. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 43 – Arsenic Leaching in the Tailings Facility, dated **June 27, 2017**.
67. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 4 – ECCC and Agnico Eagle Meeting: Whale Tail Pit Air Quality Monitoring Stations, dated **June 28, 2017**.
68. Submitted by Agnico Eagle, Commitment 27 – Additional Details on Consultations Efforts for Whale Tail Pit, dated **June 28, 2017**.
69. Submitted by Agnico Eagle, Commitment 28 – Procedure and Information on Community Liaison Committee for Whale Tail Pit, dated **June 28, 2017**.
70. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 34 – Nemo Lake Water Balance, dated **June 28, 2017**.
71. Submitted by Agnico Eagle, Commitment 24 – Socio-Economics Addendum, dated **July 10, 2017**.
72. Submitted by Agnico Eagle, Commitment 26 – Labour Force Analysis for Whale Tail Pit, dated **July 10, 2017**.
73. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 39: Whale Tail Pit Project Waste Rock Storage Facility Cover Thermal Assessment, dated **July 10, 2017**.
74. Submitted by Agnico Eagle, Commitment 38 – Fiscal Impacts to Government, dated **July 10, 2017**.
75. Submitted by Agnico Eagle, prepared by Golder Associates, Commitments 30, 36, 37, 42 - Addendum to Agnico Eagle Mines Whale Tail FEIS Appendix 6-H. Sensitivity Analyses on



Water Quality Modelling in Support of Responses to Technical Commitments 30, 36, 37 and 42 and Intervenor Comments ECCC #15 and INAC-TRC #3 and #5, on the Water Licence A Application to the Nunavut Water Board, dated **July 10, 2017**.

76. Submitted by Agnico Eagle, Commitment 27 – Additional Details on Consultation Efforts for Whale Tail Pit Version 2, dated **July 11, 2017**.
77. Submitted by Agnico Eagle, prepared by Golder Associates, Whale Tail Pit – Caribou Monitoring Workshop #2 Summary, dated **July 13, 2017**.
78. Submitted by Agnico Eagle, prepared by Golder Associates, Commitment 8 – Meadowbank Mine and All-weather Access Road Caribou Zone of Influence Assessment, dated **July 14, 2017**.
79. Submitted by Agnico Eagle, prepared by Golder Associates, Commitments 9 and 10, Cumulative Encounter and Residency Assessment for Caribou, dated **July 14, 2017**.
80. Submitted by Agnico Eagle, Commitments 11, 17, (in 3 Parts) Terrestrial Ecosystem Management Plan, Version 4, dated **July 14, 2017**.
81. Submitted by INAC, Final Written Submission Agnico Eagle Mines Limited New Water Licence Whale Tail Project 2AM-WTP and Water Licence Amendment for Meadowbank Project 2AM-MEA1525, dated **August 14, 2017**.
82. Submitted by INAC, prepared by Arcadis, Reclaim Estimate for Whale Tail Pit Project Revision 3, dated **August 14, 2017**.
83. Submitted by KivIA and NTI, Technical Review of The Final Environmental Impact Statement for The Whale Tail Project, dated **August 15, 2017**.
84. Submitted by Agnico Eagle, Agnico Eagle Mines Limited – Meadowbank Division Whale Tail Pit Final Submission Responses, dated **August 28, 2017**.
85. Submitted by INAC, Technical Comments Executive Summary (Inuktitut and French), dated **August 29, 2017**.
86. Submitted by DFO, Technical Comments Executive Summary (Inuktitut and French), dated **August 30, 2017**.
87. Submitted by ECCC, Technical Comments Executive Summary (Inuktitut and French), dated **August 30, 2017**.
88. Submitted by ECCC, Environment and Climate Change Canada's Presentation Respecting the Agnico Eagle Mines Ltd. Whale Tail Pit Project (Inuktitut and French), dated **September 5, 2017**.
89. Submitted by ECCC, Environment and Climate Change Canada's Presentation to the Nunavut Water Board Respecting the Whale Tail Pit Project Type A Water Licence Application, (English, Inuktitut, French) dated **September 5, 2017**.



90. Submitted by INAC, Nunavut Water Board Public Hearing Community Presentation, dated **September 5, 2017**.
91. Submitted by INAC, Nunavut Water Board Public Hearing Technical Hearing, dated **September 5, 2017**.
92. Submitted by DFO, Presentation to the Nunavut Water Board Board Final Hearing, dated **September 6, 2017**.
93. Submitted by Agnico Eagle, Community Information Session - Introduction and overview, dated **September 12, 2017**.
94. Submitted by Agnico Eagle, Part i- Introduction and overview, (English, Inuktitut) dated **September 15, 2017**.
95. Submitted by Agnico Eagle, Part ii – Public Participation, (English, Inuktitut) dated **September 15, 2017**.
96. Submitted by Agnico Eagle, Part 3 – Waste Disposal and Management, (English, Inuktitut) dated **September 15, 2017**.
97. Submitted by Agnico Eagle, Part 4 – Water Use and Management, (English, Inuktitut) dated **September 15, 2017**.
98. Submitted by Agnico Eagle, Part 5 – Abandonment, Reclamation, Closure and Security, (English, Inuktitut) dated **September 15, 2017**.
99. Submitted by Agnico Eagle, Part 6 – Accidents and Malfunctions, (English, Inuktitut) dated **September 15, 2017**.
100. Submitted by Agnico Eagle, Part xi – Management Plans and Monitoring Programs, (English, Inuktitut) dated **September 15, 2017**.
101. Submitted by DFO, Community Round Table Session, (English, Inuktitut, French) dated **September 15, 2017**.
102. Submitted by DFO, Final Hearing Technical Presentation, (English, Inuktitut, French) dated **September 15, 2017**.
103. Submitted by INAC, Community Presentation, (Inuktitut, French), dated **September 15, 2017**.
104. Submitted by INAC, Technical Presentation, (Inuktitut, French), dated **September 15, 2017**.
105. Submitted by KivIA, Whale Tail Presentation, (Inuktitut, English), dated **September 15, 2017**.



106. Submitted by NWB, Nunavut Water Board (NWB) Community Session Presentation, (Inuktitut, English), dated **September 20, 2017**.
107. Submitted by Agnico Eagle, Part 8 – Meadowbank License Amendment Part 9 – General – Annual Reporting Commitments, Term, Linkage to other Licences, dated **September 24, 2017**.
108. Submitted by Agnico Eagle, Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ----, dated **September 25, 2017**.
109. Submitted by NWB, Nunavut Water Board (NWB) Community Session Presentation, (Inuktitut, English), dated **September 26, 2017**.
110. Submitted by Agnico Eagle, Community Information Session - Introduction and overview, dated **October 11, 2017**.
111. Submitted by KivIA, Water Monitoring Security Reduction and Station removal Frame work, Information Request from NWB October 10, 2017, dated **October 18, 2017**.
112. Submitted by KivIA, KivIA Technical comments, AEM Whale Tail Project: Proposed Whale Tail Pit Project Type “A” Water Licence Framework, dated **October 18, 2017**.
113. Submitted by KivIA, prepared by Hutchinson Environmental Sciences Ltd., J170084 – AEM Whale Tail Project: Proposed Whale Tail Pit Project Type A Water Licence Framework, dated **October 18, 2017**.
114. Submitted by KivIA, prepared by Hutchinson Environmental Sciences Ltd., J170084 – Whale Tail Project – Monitoring and Security Reduction – Update, dated **October 18, 2017**.
115. Submitted by Agnico Eagle, Agnico Eagle Mines Limited – Meadowbank Division WHALE TAIL PIT FINAL SUBMISSION RESPONSES Updated February 6, 2018 per hearing commitment to Nunavut Water Board, dated **February 6, 2018**.
116. Submitted by Agnico Eagle, Proposed Whale Tail Pit Project Type A Water Licence Framework for Water Licence No. 2AM-WTP ----, dated **February 6, 2018**.



Correspondence:

1. Letter to Karén Kharatyan, NWB from Peter Scholz, Nunavut Planning Commission (NPC), Re: NPC File # 148297 Whale Tail Pit Project - Meadowbank Division, dated **June 17, 2016**.
2. Cover email: 2AM-MEA1525 Amendment Application: Development of Whale Tail Pit to Ryan Vanengen, Agnico Eagle from Karén Kharatyan, Senior Technical Advisor, Nunavut Water Board (NWB), dated **July 22, 2016**.
3. Letter to Jamie Quesnel, Agnico Eagle, from David Burden, Department of Fisheries and Oceans Canada (DFO), Re: *Fisheries Act* Authorization, dated **July 27, 2016**.
4. Letter to Jamie Quesnel, Agnico Eagle, from David Burden, DFO, Re: Processing of Application for a Paragraph 35(2)(b) *Fisheries Act* Authorization is Resumed, dated **July 27, 2016**.
5. Letter to Thomas Kabloona, Chair NWB, from Elizabeth Copland, Chair Nunavut Impact Review Board (NIRB), Re: Screening Decision for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal, Kivalliq Region, NIRB File No. 16MN056, dated **August 18, 2016**.
6. Cover E-mail, 2AM-MEA1525 2015 Annual Report Comments, Agnico Eagle Employee to be added to Meadowbank Distribution List, to NWB Licence Administration Staff, from Karén Kharatyan, Senior Technical Advisor, NWB dated **September 13, 2016**.
7. Letter to Ryan Vanengen, Agnico Eagle, from Ida Porter, NWB, Acknowledgement and Receipt of Application Fee for Amendment No. 2 Re: Water Licence Application – Meadowbank Project – Kivalliq Region, dated **September 29, 2016**.
8. Letter to Stephane Robert, Agnico Eagle, from David Hohnstein, NWB, Re: Licence No. 2AM-MEA1525, Agnico Eagle Mines Limited: Amendment Application – Whale Tail Pit, dated **October 3, 2016**.
9. Cover E-mail: Extension to comment period for the Whale Tail Project, to Karén Kharatyan, NWB, from Ian Parsons, Indigenous and Northern Affairs Canada (INAC) dated **October 5, 2016**.
10. Letter to David Hohnstein, NWB & Karén Kharatyan, NWB, from Jamie Quesnel, Agnico Eagle & Ryan Vanengen, Agnico Eagle, Re: Licence No 2AM-MEA1525 – Agnico Eagle Mines Limited: Amendment Application – Whale Tail Pit, Agnico Eagle's responses to NWB letter dated October 3rd, 2016, dated **October 14, 2016**.
11. Cover E-mail: 2AM-MEA1525 Agnico Eagle Response to NWB's Correspondence, to Ryan Vanengen, Agnico Eagle, Meadowbank Distribution List, from Ida Porter, NWB, dated **October 14, 2016**.
12. Letter to David Hohnstein, NWB, from Matthew Spence, Canadian Northern Economic Development Agency (CanNor), Re: Licence No. 2AM-MEA1525, Agnico Eagle Mines Limited: Amendment Application – Whale Tail Pit Project Proposal, dated **November 3, 2016**.



13. Letter to NWB, from Martyn Curtis, DFO, Re: Fisheries and Oceans Canada Comments on Completeness Review Pursuant to the Whale Tail Project, NU, dated **November 3, 2016**.
14. Letter to Karén Kharatyan, NWB, from Georgina Williston, Environment and Climate Change Canada (ECCC), Re: 2AM-MEA1525 and 2AM-WTP---- Agnico Eagle Mines Ltd. -. Whale Tail Pit Project – Type A Water Licence Amendment Application, dated **November 3, 2016**.
15. Letter to Karén Kharatyan, NWB, from Ian Parsons, INAC and Amjad Tariq, INAC, Re: Indigenous and Northern Affairs Canada's Completeness Review of Agnico Eagle Mines Limited's Application for Meadowbank Gold Mine Whale Tail Pit Project (New Type A Water Licence), dated **November 3, 2016**.
16. Cover E-mail: Whale Tail Pit Pr. WL Application Completeness, to Stephane Robert, Agnico Eagle, Ryan Vanengen, Agnico Eagle and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **November 3, 2016**.
17. Federal Contact List of Federal Departments for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal – NWB Licence No. 2AM-MEA1525, submitted **November 4, 2016**.
18. Cover E-mail: 2AM-WTP---- Federal Contact List, to Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **November 4, 2016**.
19. Cover E-mail: Whale Tail Pit Application Completeness, to Karén Kharatyan, NWB, from Luis Manzo Kivalliq Inuit Association (KivIA), dated **November 4, 2016**.
20. Cover E-mail: 2AM-WTP---- Water Licence Application for Whale Tail Pit Project: Completeness Review, to Ryan Vanengen, Agnico Eagle, Stephane Robert, Agnico Eagle, Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **November 7, 2016**.
21. Joint NWB/NIRB Letter to Nunavut Impact Review Board (NIRB) Whale Tail Pit Project Distribution List & NWB Meadowbank Distribution List, Re: Next steps in the NIRB's Review and NWB Consideration of Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal and associated Water Licence Application, dated **November 25, 2016**.
22. Cover E-mail: 2AM-WTP---- WL Application: Next Steps for Agnico Eagle Mines Ltd's Whale Tail Pit Project, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **November 25, 2016**.
23. Cover E-mail: 2AM-WTP---- Agnico Eagle Responses to Completeness Comments, to Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **December 7, 2016**.
24. Cover E-mail: 2AM-WTP---- Updated Management Plans, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **January 26, 2017**.
25. Joint NWB/NIRB Letter to NIRB Whale Tail Pit Project Distribution List & NWB Meadowbank Distribution List, Re: Commencement of Technical Review Period for the



NIRB's Review and NWB Consideration of Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal and associated Water Licence Application, dated **January 27, 2017**.

26. Cover E-mail: 2AM-WTP---- Technical Review of Whale Tail Pit Pr. / WL Application, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **January 27, 2017**.
27. NWB Public Notice of Technical Meeting and Pre-hearing Conference, Agnico Eagle New Water Licence 2AM-WTP---- dated **January 30, 2017**.
28. Cover E-mail: 170201 2AM-WTP---Re: Technical Review of Whale Tail Pit Pr. WL Application Notices, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Robin Ikkutisluuk, NWB, dated **February 1, 2017**.
29. Cover E-mail: RE: NIRB 124683 / 16MN056: Information Requests Received from Parties Regarding Agnico Eagle EIS for the "Whale Tail Pit" Project : February 28, 2017 followup_1 of 2, to Sophia Granchino, Ryan Barry, NIRB and Karén Kharatyan, Stephanie Autut, NWB, Lands Baker Lake, KIA, Tineka Simmons, CANNOR, Jamie Quesnel, Agnico Eagle, and Dionne Filiatrault, Golder., dated **February 28, 2017**.
30. Letter to Sophia Granchino, NIRB, and Karén Kharatyan, NWB, from Jamie Quesnel, Agnico Eagle, and Ryan Vanengen, Agnico Eagle, Re: NIRB File No. 16MN056 Application No: 124683/NWB File No. 2AM-WTP---- : Information Requests Received from Parties Regarding Agnico Eagle Mine Ltd.'s "Whale Tail Pit" Project, dated **February 28, 2017**.
31. Joint NWB/NIRB Letter to NIRB: Whale Tail Pit Project Distribution List and NWB: Meadowbank Distribution List, Re: Draft Agenda for the NIRB's and the NWB's Technical Meeting and Agenda for the Pre-Hearing Conference for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal and associated Water Licence Application, dated **March 13, 2017**.
32. Joint NWB/NIRB Letter to Hamlet of Baker Lake, Re: Invitation to participate in the Pre-Hearing Conference for the NIRB's Review and NWB Consideration of Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal and associated Water Licence Application, dated **March 17, 2017**.
33. Joint NWB/NIRB Letter to NIRB: Whale Tail Pit Project Distribution List and NWB: Meadowbank Distribution List, Re: Logistics Information for the NIRB's and NWB's Upcoming Technical Meeting and Agenda for the Pre-Hearing Conference for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal and associated Water Licence Application, dated **March 17, 2017**.
34. Cover E-mail: 2AM-WTP---- Submission of Information Update regarding Agnico Eagle Ltd.'s Whale Tail Pit Project, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Robin Ikkutisluuk, NWB, dated **March 24, 2017**.
35. Letter to Nunavut Water Board, Re: Whale Tail Pit Project, from Dale Nicholson, A/Regional Director General, DFO, dated **March 27, 2017**.



36. Letter to Karén Kharatyan, NWB, Re: Agnico Eagle-WTP---- - Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Technical Comments on Type A Water Licence Application, from N. John Olyslager, ECCC, dated **March 28, 2017**.
37. Contact List from Federal Departments for Agnico Eagle Mines Ltd.’s “Whale Tail Pit” Project Proposal – NWB File No. 2AM-WTP, submitted **March 28, 2017**.
38. Letter to Karén Kharatyan, NWB Re: Technical Comments from Government of Canada for Agnico Eagles Mines Ltd.’s “Whale Tail Pit” Project Proposal NWB File No. 2AM-WTP, from Matthew Spence, CANNOR, dated **March 28, 2017**.
39. Joint NWB/NIRB Letter to Ryan Vangengen, Agnico Eagle, Re: Receipt of Technical Review Comment Submissions for the NIRB’s Review and NWB Consideration of Agnico Eagle Mines Ltd.’s “Whale Tail Pit” Project Proposal and associated Water Licence Application, dated **March 30, 2017**.
40. Submitted by Agnico Eagle, Agnico Eagle Mines Limited – Meadowbank Division WHALE TAIL PIT FINAL TECHNICAL COMMENT RESPONSES April 2017, dated **April 7, 2017**.
41. Cover E-mail: 2AM-WTP---- Agnico Eagle Responses to Comments, to Ryan Vanengen, Agnico Eagle, Jamie Quesnel, Agnico Eagle and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **April 7, 2017**.
42. Letter to Sophia Granchinho, NIRB and Karén Kharatyan, NWB Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Receipt of Technical Review Comment Submissions for the NIRBs Review and NWB Consideration of Agnico Eagle Mines Ltd’s “ Whale Tail Pit” Project Proposal and associated Water License Application, from Jamie Quesnel and Ryan Van Egen, Agnico Eagle, dated **April 7, 2017**.
43. Cover E-mail: Whale Tail_Federal comments on draft agendas Tech mtg PHC, to NIRB and NWB, from Laurent Jonart, CANNOR, dated **April 19, 2017**.
44. Letter to Sophia Granchinho, NIRB and Karén Kharatyan, NWB Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Receipt of Technical Review Comment Submissions for the NIRBs Review and NWB Consideration of Agnico Eagle Mines Ltd’s “ Whale Tail Pit” Project Proposal and associated Water License Application, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **April 19, 2017**.
45. Cover E-mail: 2AM-WTP Whale Tail Pit TM/PHC Presentations, to Ryan Vanengen, Agnico Eagle, from Karén Kharatyan, NWB, dated, **April 21, 2017**.
46. Joint NWB/NIRB Letter to NIRB Whale Tail Pit Project Distribution List & NWB Meadowbank Distribution List, Re: Finalized Agenda for the NIRB ’s and the NWB’s Technical Meeting and Agenda for the Pre-Hearing Conference for Agnico Eagle Mines Ltd.’s “Whale Tail Pit” Project Proposal and associated Water Licence Application, dated **April 24, 2017**.



47. Letter to Sophia Granchinho, NIRB and Karén Kharatyan, NWB, Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Information on Public Record, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **April 24, 2017**.
48. Cover E-mail: 2AM-WTP---- NWB NIRB Final Technical Meeting and Pre-Hearing Agendas - Whale Tail Pit Project -Kivalliq Region, to Ryan Vanengen, Agnico Eagle, Jamie Quesnel, Agnico Eagle, and Meadowbank Distribution List, from Robin Ikkutisluuk, NWB, dated **April 25, 2017**.
49. Joint NWB/NIRB Community Info Session Sign-In Sheets, dated **April 27, 2017**.
50. Joint NWB/NIRB Technical Meeting Sign-In Sheets, dated **April 28, 2017**.
51. Letter to Hamlet of Coral Harbour, Re: Sealift Vessels' Navigation between Coats Island and Southampton Island, from Francois Gaudreau, Nunavut Sealink and Supply Inc. (NSSI), dated **May 1, 2017**.
52. Joint NWB/NIRB Prehearing Conference Sign-In Sheets, dated **May 1, 2017**.
53. Distributed by the NWB, List of Issues Technical Meeting, Application for a Type "A" Water Licence 2AM-WTP----, April 28-29, dated **May 2, 2017**.
54. Letter to Karén Kharatyan, NWB, Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : NWB Consideration of Agnico Eagle Mines Ltd's " Whale Tail Pit" Project Proposal and revised Water License Applications(2AM MEA-1525 Amendment Application and New license 2AM WTP ---), from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **May 25, 2017**.
55. Cover E-mail: 2AM-WTP---- PreHearing Conference Decision, to Ryan Vanengen, Agnico Eagle and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **June 8, 2017**.
56. Joint NWB/NIRB submission PreHearing Conference Decision (In English and Inuktitut) Concerning The Whale Tail Pit Project (NIRB File No. 16MN056) and An Application for a New Type "A" Water Licence (NWB File No. 2AM-WTP----), dated **June 8, 2017**.
57. Letter to Sophia Granchinho, NIRB and Karén Kharatyan, NWB, Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : The NIRB's prehearing conference decision for Agnico Eagle Mines Ltd.'s Whale Tail Pit project proposal, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **June 21, 2017**.
58. Cover E-mail: Notice of Public Hearing and list of commitments 2AM-WTP---- 16MN056, to Ryan Vanengen, Agnico Eagle and Meadowbank Distribution List, from Richard Dwyer, NWB, dated **July 14, 2017**.
59. NWB Public Notice of Public Hearing (English, Inuktitut) 2AM-WTP---- Whale Tail Pit New Water Licence Application, 2AM-MEA1525 Meadowbank Gold Mine Amendment Water Licence Application, dated **July 14, 2017**.
60. NIRB/NWB Whale Tail Commitments List Agnico Eagle Update, dated **July 14, 2017**.



61. NWB Public Notice of Public Hearing (English, Inuktitut) 2AM-WTP---- Whale Tail Pit New Water Licence Application, 2AM-MEA1525 Meadowbank Gold Mine Amendment Water Licence Application, dated **July 17, 2017**.
62. Letter to Whale Tail Pit Distribution List, Re: NWB's processing of Agnico Eagle Mines Ltd.'s Type "A" Water Licence Application 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525, from Karén Kharatyan, NWB, dated **July 27, 2017**.
63. Letter to Karén Kharatyan, NWB, Re: Type "A" Water Licence Application 2AM-WTP---- and Amendments to the Type "A" Water Licence 2AM-MEA1525 – Fishers and Oceans Canada (DFO) Final Written Submission, from Scott Gilbert, DFO, dated **August 14, 2017**.
64. Letter to Karén Kharatyan, NWB, Re: AEM-WTP---- Agnico Eagles Mines Ltd. – Whale Tail Pit Project – Final Written Submission, from Susanne Forbich, ECCC, dated **August 14, 2017**.
65. Letter to Karén Kharatyan, NWB, Re: Technical Comments from Government of Canada for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal NWB File No. 2AM-WTP---- & 2AM-MEA1525, from Matthew Spence CANNOR, dated **August 14, 2017**.
66. Contact List from Federal Departments for Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal – NWB File No. 2AM-WTP----, submitted **August 14, 2017**.
67. Cover E-mail: Whale Tail Pit Public Hearing Final Submissions, to Ryan Vanengen, Agnico Eagle, and Meadowbank Distribution List, from Richard Dwyer, NWB, dated **August 15, 2017**.
68. Letter to Ryan Vanengen, Agnico Eagle, Re Receipt of Final Written Submissions for the NIRB's Review of Agnico Eagle Mines Ltd.'s "Whale Tail Pit" Project Proposal, from Sophia Granchinho, NIRB, dated **August 16, 2017**.
69. Letter to Sophia Granchinho, NIRB and Karén Kharatyan, NWB, Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP ---- : Final Written Submission Responses for the Review of Agnico Eagle Mines Ltd's "Whale Tail Pit" Project Proposal, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **August 28, 2017**.
70. Cover E-mail: Whale Tail Pit 2AM-WTP---- Agnico Eagle response to written submissions, to Ryan Vanengen and Meadowbank Distribution List, from Richard Dwyer, NWB, dated **August 29, 2017**.
71. Cover E-mail: RE: NIRB 124683 / 16MN056: Final Hearing Agenda for the NIRB's Review of Agnico Eagle's Whale Tail Pit Project Proposal, to Sophia Granchinho and Tara Arko, NIRB, from Ryan Van Engen, Agnico Eagle, dated **September 5, 2017**.
72. Cover E-mail: Applications for the Water Licence No. 2AM-WTP---- and potential consequential amendments to Water Licence No. 2AM-MEA1525, Agnico Eagle Mines Limited; Public Hearing Update and Hearing Agenda, to Ryan Vanengen, Agnico Eagle and Meadowbank Distribution List, from Richard Dwyer, NWB, dated **September 8, 2017**.



73. Letter to Ryan Vanengen, Agnico Eagle, Re: Applications for the Water Licence No. 2AM-WTP---- and potential consequential amendments to Water Licence No. 2AM-MEA1525, Agnico Eagle Mines Limited; Public Hearing Update and Hearing Agenda, from Stephanie Autut, NWB, dated **September 8, 2017**.
74. Letter to Ryan Vanengen, Agnico Eagle, Re: Applications for the Water Licence No. 2AM-WTP---- and potential consequential amendments to Water Licence No. 2AM-MEA1525, Agnico Eagle Mines Limited; Public Hearing Update and Hearing Agenda, from Stephanie Autut, NWB, (Inuktitut) dated **September 22, 2017**.
75. Prepared by the NWB Public Hearing Whale Tail Pit Registration Form Community Session, dated **September 26, 2017**.
76. Prepared by the NWB Public Hearing Whale Tail Pit Registration Form Day One, dated **September 26, 2017**.
77. Prepared by the NWB Public Hearing Whale Tail Pit Registration Form Day Two, dated **September 27, 2017**.
78. Letter to Ryan Vanengen, Agnico Eagle, Re: Next Steps in the Nunavut Water Board's Consideration of Agnico Eagle Mines Ltd.'s Applications for Type "A" Water Licence 2AM-WTP---- and Consequential Amendments to Water Licence 2AM-MEA1525, from Lottie Toomasie, NWB Chair, dated **October 10, 2017**.
79. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction, from Ian Parsons, INAC, dated **October 17, 2017**.
80. Prepared by INAC, Table, Re: NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Resolution of Outstanding Issues, from Ian Parsons, INAC, dated **October 17, 2017**.
81. Prepared by ECCC Table, Re: Summary of How the Concerns in Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Regarding the Whale Tail Pit Project Were Addressed, from Melissa Pinto, ECCC, dated **October 17, 2017**.
82. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions, from Melissa Pinto, ECCC, dated **October 17, 2017**.
83. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- Agnico Eagle Mines Ltd. Proposed Whale Tail Pit Project – Type "A" Draft Water Licence and Water Monitoring Reduction Frameworks, and DFO Summary of Resolutions for NWB, from Bev Ross, DFO, dated **October 18, 2017**.
84. Prepared by DFO, Table, Re: DFO Summary of Resolutions, from Bev Ross, DFO, dated **October 18, 2017**.



85. Cover E-mail: Extension to submit comments on draft water licence terms and conditions, to Agnico Eagle, KIA, ECCC, DFO, INAC, from NWB, dated **October 20, 2017**.
86. Cover E-mail: licence framework, to NWB, from Ian Parsons, INAC, dated **November 27, 2017**.
87. Cover E-mail: 2AM-WTP---- Agnico Eagle Submission, to Agnico Eagle, INAC, ECCC, KIA, DFO, Interested Parties, from Richard Dwyer, NWB, dated **February 6, 2018**.
88. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Review of Draft Water Licence, from Ian Parsons, INAC, dated **February 13, 2018**.
89. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Draft Water Licence Framework: Proponent’s Responses, from Melissa Pinto, ECCC, dated **February 16, 2018**.
90. Cover E-mail: 2AM-WTP---- Agnico Eagle Submission, to Richard Dwyer, NWB from Sally Wong, DFO, dated **February 16, 2018**.
91. Letter to Karén Kharatyan, NWB, Re: 2AM- WTP ---- Draft Licence Terms and Conditions, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **February 23, 2018**.
92. Letter to Interested Parties, Re: File No. 2AM-WTP---- ; Invitation for Additional Submissions to Supplement Public Hearing Record in Respect of an application for a new Type “A” Water Licence for 2AM-WTP---- and an amendment application for Licence No. 2AM-MEA1525, by Agnico Eagle Mines Limited for the Whale Tail Pit Gold Mine Project, Lootie Toomasie, NWB Chair, dated **February 23, 2018**.
93. Cover E-mail: 2AM-WTP Type "A" Application: NWB Advice regarding Next Steps, to Ryan Vanengen, Agnico Eagle and Meadowbank Distribution List, from Karén Kharatyan, NWB, dated **February 23, 2018**.
94. Cover E-mail: 2AM-WTP Type "A" Application: NWB Advice regarding Next Steps, to NWB, from Melissa Pinto, ECCC, dated **March 15, 2018**.
95. Letter to Karén Kharatyan, NWB, Re: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Final Submission, from Ian Parsons, INAC, dated **March 19, 2018**.
96. Cover E-mail: 180321 2AM-WTP---- Submission of ECCC and INAC Comments Agnico Eagle Mines Ltd. Whale Tail Pit, to Ryan Vanengen and Meadowbank Distribution list, from Ida Porter, NWB, dated **March 21, 2018**.
97. Letter to Karén Kharatyan, NWB, Re: 2AM- WTP ---- License – Final Comments, from Jamie Quesnel and Ryan Vanengen, Agnico Eagle, dated **March 26, 2018**.
98. Cover E-mail: 2AM-WTP---- Submission of Agnico Eagle Mines Ltd. Final Response Regarding Water Licence Application Whale Tail Pit, to Jamie Quesnel, Agnico Eagle and Meadowbank Distribution List, from Ida Porter, NWB, dated **March 27, 2018**.



99. Letter to Interested Parties, Re: 2AM-WTP---- Close of Public Hearing Record in Respect of the Type “A” Water Licence Applications for 2AM-WTP---- and Amendments to 2AM-MEA1525 by Agnico Eagle Mines Limited for the Whale Tail Pit Project, Lootie Toomasie, NWB Chair, dated **April 4, 2018**.
100. Kimberley Gilson, Duboff Edwards Haight & Schachter Law Corporation to Stephanie Autut, Executive Director, NWB; Re: Whale Tail Project Licence Application, dated May 29, 2018.

APPENDIX F - Sign-in Sheets – List of Participants in the Public Hearing

PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
1.	JAMIE	QUESNEL	AGNICO			
2.	Michel	Julien	AGNICO			
3.	Colleen	Prather	Goldex			
4.	Chris	Spencer	GN			
5.	Luis	MANZO	KIA			
6.	JARON	OTTENHOF	NTI			
7.	Jeff	Milagrell	ISIA			
8.	Sophia	Granchinha	NIRB			
9.	Melissa	Pinto	ECCC			
10.	Alexander	Niogo	Interpretor			
11.	Trish	Auser	ECCC			
12.	Maer	Diaz	DFSC			
13.	Simon	Gruda	Justice			
14.	Laura	Watkinson	DFO			
15.	Loren	Wester	INAC			
16.	AMANDA	BECANGER	INAC			
17.	Tony	Brown	"			
18.	Valerie	Bertrand	Goldex			
19.	Jeff	Mantz	KIA			
20.	Michelle	Groble	KIA			
21.	Alan	Sexton	KWIA			
22.	Richard	Akgaunee	BL HTO			
23.	Hugh	Nateeba	BL HTO			
24.	M. Sporel		BL NA			
25.	Timothy E. V. V. V.					
26.	Victoria	Amarok	BL NU			
27.	Constance	Ramcharan	AEM			
28.	Erila	Voxer	AEM			
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31.	Tony Anzures					
32.	Pand Hohnstern		NMB			



PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
33.	Eric	Ugaitika	Ed + confy			muwa tuag@protonmail.com
34.						
35.	Calix	Ello				
36.	Luis	MANZO	KIA			
37.	ghukaraguk	silatamikel	Kalurook			
38.	Jul					
39.	Er 8120	NANCYK	Baker Lake			
40.	Self					
41.	SARAH	Silou	Baker Lake			ssilou@gmail.com
42.						
43.	Leah	PUPILY				
44.	Sorely	gggrrr	11 11			Sorely
45.	Dem. 80	FOOKAT	11 11			Dem. 80
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47.	Jennifer					
48.	Jesse Kennedy					
49.		Bakouddhona				
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PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
65.	Samson	Joreh		893-4314	—	—
66.	Edel					
67.	J. Jyde					
68.	Mehar	KATIKU				
69.	RYAN	VANBENGEN	AGNICO			
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PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Community Session

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
1.	Condace	Ramcharan	AEM			
2.	Valerie	Bertrand	Golden			
3.	Michel	Julie	AEM			
4.	Jamie	QUESNEL	AGNICO			
5.	Gina	Voyer	AEM			
6.	Raymond	Owagkak	Baker Lake			
7.	David	Honastein	NWB			
8.	Joan	MEATEL	HNWB			
9.	Colleen	Prather	Golden			
10.	Michelle	Groble	AEM			
11.	KIAN	VAN EUGEN	cc			
12.	Trish	AUSER	ECCE			
13.	Melissa	Pinto	ECCE			
14.	Luis	MARZO	KIA			
15.	Alan	Sexton	KIA			
16.	Jeff	Pahaly	HSB			
17.	Rob	Jamieson	Dalhousie U.			
18.	Jenny	Hayward	" "			
19.	Brendan	McConkey	U. of Waterloo			
20.	Chris	Sponner	GN			
21.	MARK	D'Aquila	DFD			
22.	Simon	Groble	INAC			
23.	AMANDA	BECANGER	INAC			
24.	Laura	Watkinson	DFD			
25.	KAREN	GROBLE	INAC			
26.	Pa	Jones	INAC			
27.	Sophia	Granchinho	NIRB			
28.	Tony	Brown	INAC			
29.	JAMES	OTTENMAC	VTI			
30.	Jeff	Hart	KIA			
31.	Brian	Pudnak	Baker Lake			
32.	LORNA	Pudlak	Baker Lake			



PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Community Session

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
33.	Basil Kuyavik	K	K-4	773-2792		
34.	Josephine S.	OKlousa				
35.	V. Fredes					
36.	Frederic					
37.	Timothy E			793-4889		
38.	Jennifer S					
39.	Mr B. S.					
40.	Amel Kadeh					
41.	Amel Kadeh					
42.	Unglaugh	Itlik	Baker Lake			
43.	Dary	Kayumall	Baker Lake			
44.	Pamela	Julie	Baker Lake			
45.	Linda Kadeh	Kadeh	Baker Lake			
46.	Sharon Kadeh		Baker Lake			
47.	ERIK SIMAILAK		Baker Lake			
48.	Shawn ATTUJAK					
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PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Day Two

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No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
1.	Simon	Gruda-Delber	Justice Canada			
2.	KAREN	COSTERLO	INAC			
3.	Mark B.	O'Neil	DFO			
4.	Laura	Watterson	DFO			
5.	Melissa	Pinto	ECCC			
6.	Thish	Anser	ECCC			
7.	AMANDA	BÉCANGÉ	INAC			
8.	JAMIE	QUEVEL	AGNICO			
9.	Colleen	Prather	Golder			
10.	Tony	Brown	INAC			
11.	LEI	MANZO	KIA			
12.	Ort	W. H. H. H.	ICAP			
13.	David	Hohnstein	NWB			
14.	Sophia	Granchinho	NIRB			
15.	RYAN	VANWENGER	AEM			
16.	Timothy, Euvik			783-4889		
17.	Michael	Julien	AEM			
18.	Alfred, Nioy	Altoy	Interpret			
19.	JAKED	OTTEHOFF	NTI			
20.	Joe	Parsons	TABAC			
21.	Alan	Sexton	KIA			
22.	Carolee	Ramcharan	AEM			
23.	Wendy	Guba	AEM			
24.	Ala Oyev		AEM			
25.	Valerie	Bertrand	Golder			
26.	Chris	Spencer	GN			
27.	JEFF	Hans	KIA			
28.	Richard	Aksentzev	BLH TO			
29.	Samson	Jana		783-4314		
30.	Eric	Ukpatku	Self	4878		
31.	Baril Kevine		BLH	783-2212		
32.	SAMSON	Ukpatku				



PUBLIC HEARING WHALE TAIL PIT
Baker Lake, Nunavut September 26-27, 2017
Registration Form Day Two

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
33.	May	Kreelak	Baker Lake			
34.						
35.	AL	5	B.L			
36.	Mahdy Kott	Kallhup	B.L			
37.	Marcha	Soral	B.L			
38.	Victoria	Amarok	BL			
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