

Reconsideration Report and Recommendations for the Saline Effluent Discharge to Marine Environment Proposal

Agnico Eagle Mines Limited's
Meliadine Gold Mine Project

Project Certificate No. 006
NIRB File No. 11MN034



July 2021

INSIDE COVER PAGE



The Nunavut Impact Review Board's Primary Objectives under the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, Article 12, Section 12.2.5:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of residents of Canada outside the Nunavut Settlement Area.

The Nunavut Impact Review Board's Primary Objectives under the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2, s. 23 states:

23(1) The Board must exercise its powers and perform its duties and functions in accordance with the following primary objectives:

- (a) to protect and promote the existing and future well-being of the residents and communities of the designated area; and
- (b) to protect the ecosystemic integrity of the designated area.

23(2) In exercising its powers or performing its duties and functions in accordance with the objective set out in paragraph (1)(a), the Board must take into account the well-being of residents of Canada outside the designated area.

Nunavut Impact Review Board

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Photo 1: Panel Members: (from left) Phillip Omingmakyok Kadlun, Kaviq (Marjorie) Kaluraq, Allen Okanak Maghagak

THIS REPORT IS SUBMITTED TO THE HONOURABLE DANIEL VANDAL, MINISTER OF NORTHERN AFFAIRS BY THE NUNAVUT IMPACT REVIEW BOARD ON THIS 30TH DAY OF JULY, 2021.

Kaviq (Marjorie) Kaluraq
Chairperson

Phillip Omingmakyok Kadlun
Vice Chairperson

Allen Okanak Maghagak
Board Member

consideration of all written and oral submissions received by the Board, the Board's duly appointed decision-making Panel for the file has concluded that the Waterlines Proposal should be allowed to proceed and has recommended eleven (11) revisions and the addition of three (3) new Terms and Conditions to the Terms and Conditions of Project Certificate No. 006.

Translated versions of the Reconsideration Report and Recommendations are being prepared in Inuktitut and French and will be available as soon as possible.

Should you have questions or require clarification regarding this matter, please contact the NIRB's Executive Director, Karen Costello at (867) 983-4608 or kcostello@nirb.ca.

Sincerely,



Kaviq Kaluraq
Chairperson
Nunavut Impact Review Board

cc: The Honourable Jonathan Wilkinson, P.C., Minister of Environment and Climate Change
The Honourable Bernadette Jordan, P.C., Minister of Fisheries and Oceans and the Canadian Coast Guard
The Honourable Omar Alghabra, P.C., Minister of Transport
The Honourable Mumilaaq Qaqqaq, MP for Nunavut
The Honourable Joe Savikataaq, Premier of Nunavut
Aluki Kotierk, President, Nunavut Tunngavik Incorporated
Kono Tattuinee, President, Kivalliq Inuit Association
Lottie Toomasie, Chairperson, Nunavut Water Board
Jamie Quesnel, Agnico Eagle Mines Limited
Michel Groleau, Agnico Eagle Mines Limited
Meliadine Distribution List

CHAIRPERSON'S FOREWORD

The Nunavut Impact Review Board (NIRB or Board) is providing this Reconsideration Report and Recommendations to present our findings and recommendations associated with the Board's assessment of Agnico Eagle Mines Limited's (Agnico Eagle) "Saline Effluent Discharge to Marine Environment" Project Proposal (the Waterlines Proposal). In the Waterlines Proposal, Agnico Eagle proposed to change the way treated saline groundwater (also described as saline effluent) flowing into the underground mine at the Meliadine Gold Mine site is moved from the mine site and discharged into the ocean at Itivia Harbour (during the open water season). Currently, this water is trucked from the mine to a holding tank at Itivia Harbour, but under the Waterlines Proposal the saline effluent would be transported through waterlines to a diffuser pipe that is placed under the water in Melvin Bay. The waterlines are proposed to be located along the existing roadway and would be covered for 80-90% of the length of the waterlines. As part of Agnico Eagle's adaptive management of surface water such as snow, rain, and runoff that contacts the mine site (surface contact water), the waterlines may also be used to transport treated surface contact water for release into Melvin Bay to reduce releases of surface contact water into Meliadine Lake. The Waterlines Proposal would also result in a significant increase to the amount of treated water Agnico Eagle proposes to release into Melvin Bay with the daily rate increasing to a total combined daily discharge of saline effluent and surface contact water of up to 20,000 m³ per day during the open water season.

The Board's assessment of the Waterlines Proposal commenced in March 2020, and is the first assessment received, conducted, and completed by the Board wholly during the COVID-19 pandemic. This meant that the Board had to make several changes to our standard timelines, processes, and procedures, sometimes with very short notice, in order to complete the assessment in a manner that complied with public health measures but also met the Board's objectives to conduct a thorough, inclusive, and timely assessment. The Board thanks the Government of Nunavut's Chief Public Health Officer, Dr. Michael Patterson and his staff, who worked with the Board to develop and implement safety protocols that allowed the Board to conduct modified in-person proceedings safely during this assessment. The Board also appreciates the collaboration, flexibility, and creativity of all the participants, Agnico Eagle, the formal Intervenors, Community Representatives from the Kivalliq communities of Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet, and Whale Cove and interested members of the public during the assessment. Your support of the Board's modified processes and compliance with public health orders and the Board's COVID-19 protocols were greatly appreciated.

Throughout this assessment, the Board heard that there was general support for the decrease in truck traffic on the all-weather access road that would result from moving the saline effluent to Itivia through the waterlines instead of trucking. However, participants also voiced concerns that the construction and operation of the waterlines along the all-weather access road could impact wildlife (particularly caribou and the free movement of caribou across the road) and could also impact the land surrounding the waterlines. The Board also heard concerns about the potential for

the increased volume and quality of saline effluent and surface contact water discharged through the waterlines to impact the marine water quality, marine mammals, shellfish and fish, and marine habitat. The Board also heard there were concerns about the potential for damage to land, wildlife, and the environment along the road, at the Itivia site and in Melvin Bay if there were spills or leaks from the waterlines.

To limit the potential for the Waterlines Proposal to result in negative environmental or socio-economic impacts, the Board has recommended that eleven (11) existing terms and conditions in Project Certificate No. 006, Amendment 1 be revised (Nos. 25, 44, 53, 54, 57, 118, 119, 124, 125, 128, and 130). The Board has also recommended that three (3) new terms and conditions (Nos. 132, 133, and 134) be added to the Project Certificate to ensure that the potential for effects on the terrestrial wildlife (including caribou) and environment, marine mammals, shellfish, fish, and the marine environment associated with the Waterlines Proposal is minimized. These recommended revisions will also ensure that Agnico Eagle has adequate monitoring for effects in place and that Agnico Eagle's plans to limit potential effects are designed, informed, and adapted to reflect Inuit, Traditional and Community Knowledge shared by knowledge holders from nearby communities, harvesters and interested transboundary groups.

On this basis, having reviewed and considered all the information provided and knowledge shared with the Board throughout the assessment process for the Waterlines Proposal, and for the reasons detailed in this Report, the Board's duly appointed decision-making Panel responsible for the file has concluded that the Waterlines Proposal, if it is conducted in accordance with the Board's recommended revisions and additions to Project Certificate No. 006, can be conducted in a way that minimizes the potential for adverse ecosystemic and socio-economic effects. Consequently, the Board recommends that the proposed changes to the Meliadine Gold Mine Project as set out in the Waterlines Proposal should now be allowed to proceed to the licensing and permitting phase of the regulatory process.

In closing, the Board is grateful to all who shared their experiences, expertise, and perspectives to assist in completing a thorough assessment of the Waterlines Proposal. The NIRB recognizes and appreciates the positive, collaborative, and respectful contributions of all who continue to work together to ensure that proposed amendment to the Meliadine Gold Mine Project delivers lasting benefits to the Kivalliq region, while minimizing the potential for adverse ecosystemic and socio-economic effects.

AVANT-PROPOS DE LA PRÉSIDENTE

Par le présent rapport de réexamen, la Commission du Nunavut chargée de l'examen des répercussions (la CNER ou la Commission) présente les résultats, et les recommandations, de son évaluation de la proposition de projet « Rejet des effluents salins en milieu marin » (Proposition des canalisations d'eau) d'Agnico Eagle Mine Limited (Agnico Eagle). Dans cette proposition, Agnico envisage de modifier le mode de transport de l'eau saline souterraine traitée (également appelée effluents salins) - s'écoulant dans la mine souterraine du site Meliadine -, jusqu'au Port Itivia, lieu de rejet dans l'océan (pendant la saison des eaux libres). À l'heure actuelle, cette eau est transportée par camion jusqu'à un réservoir de retenue situé au port Itivia. Au titre de la proposition de canalisations d'eau, les effluents salins seraient transportés par canalisations jusqu'à un diffuseur, placé sous l'eau dans la baie Melvin. Les canalisations seraient installées le long de la route et recouvertes sur 80 à 90% de leur longueur. Dans le cadre de la gestion adaptative d'Agnico Eagle appliquée à l'eau de surface comme la neige, la pluie et l'eau de ruissellement en contact avec le site de la mine (eau de contact de surface), les canalisations pourraient également servir à transporter l'eau traitée de contact de surface afin de la déverser dans la baie Melvin et de réduire ainsi les rejets dans le lac Meliadine. La proposition de canalisations d'eau engendrerait également une importante augmentation du volume d'eau traitée déversée dans la baie Melvin et le taux quotidien du déversement combinant les effluents salins et l'eau de contact de surface, augmenterait jusqu'à atteindre jusqu'à 20 000 m³ par jour, pendant la saison des eaux libres.

La Commission a commencé son évaluation de la proposition de canalisations d'eau en mars 2020. C'est la première évaluation reçue, totalement effectuée et terminée pendant la pandémie de la COVID-19. De ce fait, la Commission a dû apporter plusieurs changements à ses calendriers, processus et procédures habituels, quelquefois dans de très courts délais, afin de réaliser cette évaluation en jumelant ses objectifs de rigueur, d'inclusion et de ponctualité au respect des mesures de santé publique. La Commission tient à remercier le Dr Michael Patterson, administrateur en chef de la santé publique du Nunavut, et son personnel, qui ont collaboré avec la CNER pour élaborer et appliquer des protocoles de sécurité, permettant à la Commission de mener sagement et en présentiel, ses procédures d'évaluation modifiées. La Commission tient également à souligner la collaboration, la flexibilité et la créativité manifestées lors de cette évaluation par tous les participants, Agnico Eagle, les représentants des collectivités de Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet et Whale Cove ainsi que par des membres intéressés de la population. Votre soutien aux processus modifiés de la Commission ainsi que votre respect des protocoles et des ordonnances de santé ont été grandement appréciés.

Pendant toute cette évaluation, la Commission a constaté un soutien généralisé pour la baisse du trafic des camions sur la route d'accès praticable en tout temps, baisse qu'engendrerait le transport des effluents salins par des canalisations jusqu'à Itivia. Mais les participants se sont dits préoccupés par l'impact de la construction et du fonctionnement des conduites d'eau sur les espèces sauvages (notamment les caribous et leur liberté de mouvement à travers cette route) ainsi que sur les terres entourant ces canalisations. Ils se sont en outre inquiétés des répercussions que

l'éventuelle amplification du volume des effluents salins, leur qualité et l'eau de contact de surface transportés par les canalisations pourraient avoir sur la qualité de l'eau marine, les mammifères marins, les mollusques et crustacés et l'habitat marin. La Commission a également entendu les intervenants s'inquiéter des dommages potentiels que subiraient les terres, les espèces sauvages et l'environnement le long de la route, au site d'Itivia et à la baie Melvin en cas de fuites ou de déversements des conduites.

Pour limiter de néfastes répercussions environnementales ou socioéconomiques de la proposition de canalisations d'eau, la Commission a recommandé la révision d'onze (11) modalités et conditions (nos. 25, 44, 53, 54, 57, 118, 119, 124, 125, 128, et 130) du certificat de projet no.006, modification 1. Elle a également recommandé d'ajouter trois nouvelles modalités au certificat (Nos. 132, 133, and 134) afin de s'assurer que les effets éventuels de la proposition de canalisations sur les espèces sauvages terrestres (les caribous y compris) et sur l'environnement, les mammifères marins, les mollusques et crustacés et l'habitat marin soient minimisés. Grâce à ces révisions, Agnico Eagle aura établi une adéquate surveillance des effets et ses plans de minimisation des effets potentiels auront été conçus, instruits et adaptés pour refléter les connaissances traditionnelles et communautaires inuites, transmises par les détenteurs du savoir des collectivités avoisinantes, par les cultivateurs et par les groupes transfrontaliers intéressés.

Par conséquent, après examen et prise en compte de tous les renseignements et de toutes les connaissances transmis au cours de l'évaluation de cette proposition de canalisations d'eau, et pour les raisons détaillées dans ce rapport, le Comité décisionnel dûment nommé par la Commission et responsable du dossier, a conclu que la mise en vigueur de la proposition de canalisations d'eau, si exécutée conformément aux révisions et ajouts recommandés au certificat de projet no.006, sera effectuée en minimisant les possibles et néfastes effets socioéconomiques et écosystémiques. De ce fait, la Commission recommande que les modifications proposées au projet aurifère Meliadine, et précisées dans la proposition de canalisations d'eau, soient désormais autorisées à passer à l'étape de la délivrance de permis et de licences du processus de réglementation.

En terminant, la Commission aimerait remercier toutes celles et tous ceux qui ont partagé leurs expériences, leur expertise et leurs points de vue afin d'appuyer la rigoureuse évaluation de la proposition de canalisations d'eau. La CNER tient à souligner et à reconnaître les contributions positives, collaboratives et respectueuses de tous ceux qui continuent à collaborer pour que les modifications proposées au projet aurifère Meliadine engendrent de durables avantages pour la région de Kivalliq, tout en minimisant les éventuels et néfastes effets écosystémiques et socioéconomiques.

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1 Introduction

1.1 Purpose of this Report

This Reconsideration Report and Recommendations have been prepared by the Nunavut Impact Review Board (NIRB or Board) to summarize the Board’s reconsideration of the terms and conditions of Project Certificate No. 006 in light of the “Saline Effluent Discharge to Marine Environment” Project Proposal, a proposed modification to the Meliadine Gold Mine Project (NIRB File No. 11MN034) (Waterlines Proposal) as proposed by Agnico Eagle Mines Limited (Agnico Eagle or Proponent).

As set out under s. 112(5) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*), when the Board has conducted a reconsideration of the terms and conditions in a previously approved Project Certificate, the Board is required to report to the responsible Minister(s) as follows:

NuPPAA, s 112(5): Within 45 days after the end of the Board’s reconsideration under subsection (1) or (2), the Board must submit a written report to the responsible Minister that contains:

- (a) an assessment of the terms and conditions in force; and
- (b) any terms and conditions that it recommends should apply in respect of the project.

This Reconsideration Report and Recommendations summarizes the NIRB’s assessment of the potential ecosystemic and socio-economic effects of the Waterlines Proposal and concludes that the Waterlines Proposal should be allowed to proceed to the permitting/licensing stage of the regulatory process. The Board has provided recommended eleven (11) revisions and three (3) additions to the terms and conditions of the existing Project Certificate No. 006 consistent with the objectives of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and the *NuPPAA*. The Report further describes in detail the factors taken into consideration by the Board, providing a description of the Waterlines Proposal, a summary of comments received to date from parties, and outlines the environmental, socio-economic, and other factors given consideration by the Board during the assessment of the Waterlines Proposal.

The Board has developed a Highlights Document describing in plain language its process and its recommendations including visuals in response to comments and feedback received throughout its assessment of the Waterlines Proposal. The Highlights Document is available in English and Inuktitut Appended to this report and is meant to help parties better understand the basis of the Board’s decision and associated recommendations. However, if any discrepancies exist between the Highlights Document and the main Report, the Board would like to note that this report is the authoritative document in communicating their decision.

1.2 The NIRB's Approach to Assessing Modifications to Previously Approved Projects

As described in more detail below, the Meliadine Gold Mine Project is currently in operations, was assessed by the NIRB from 2011 to 2014, and is governed by the terms and conditions set out in NIRB Project Certificate No. 006, which was modified on February 26, 2019 to allow for the trucking of saline groundwater via the all-weather access road (AWAR) for discharge into the marine environment at Melvin Bay near Rankin Inlet. As was the case in the previous amendment, in determining the process and procedure guiding the NIRB's assessment of the Waterlines Proposal, the Board considered whether the Waterlines Proposal should be assessed via a NIRB screening, or whether a reconsideration of the terms and conditions of Project Certificate No. 006 under Article 12, Section 12.8.2 of the *Nunavut Agreement* and s. 112 of the *NuPPAA* was more appropriate. The following factors were considered by the Board to determine the appropriate assessment process:

- Was the Waterlines Proposal included within the scope of the original project as previously assessed by the NIRB?
- Is the proposed modification consistent with the terms and conditions of the existing NIRB Project Certificate, or are changes to the Project Certificate necessary to reflect the modification?
- Did the proposed modification constitute a significant modification to the original project that is integrally linked to the original project (as subsequently modified by any modification proposals that have previously been assessed and approved by the NIRB)?
- Does the proposed modification constitute a significant modification to the original project that is not integrally linked to the original project, and that has sufficient scope to be assessed as an independent project proposal?

The NIRB considered the Waterlines Proposal to constitute both:

- a significant modification to the original project (included as amended by the 2018 Saline Effluent Discharge Proposal); and
- integrally linked to the original Meliadine Gold Mine Project (including as modified by the 2018 Saline Effluent Discharge Proposal).

Therefore, the NIRB determined that, as established under Article 12, Section 12.8.2 of the *Nunavut Agreement* and s. 112 of *NuPPAA*, a reconsideration of the terms and conditions of Project Certificate No. 006, Amendment 1 would be the appropriate process to assess the Waterlines Proposal. The Board further recognized that a comprehensive reconsideration process could also identify additional terms and conditions that would be warranted for inclusion in an updated Project Certificate. Having established that terms and conditions within Project Certificate No. 006, Amendment 1 required reconsideration, the Board initiated an assessment of the Waterlines

Proposal, including the conduct of a Public Hearing, in accordance with the NIRB's *Rules of Procedure*.¹

1.3 Modifications to the Board Processes Required during the COVID-19 Pandemic

The COVID-19 pandemic has created challenges for Nunavummiut and Canadians, and also required the NIRB to modify the Board's existing practices and processes to advance the assessment of the Waterlines Proposal to the next steps and ensure procedural fairness was maintained throughout.

In the development of modifications to the Board's processes, the Board was mindful of communities and participants questioning whether in-person proceedings could be carried out safely during a pandemic. However, the Board also recognized that indefinite delays in proceedings was not in keeping with the Board's obligations to deliver thorough but timely assessments. Consequently, the Board developed and implemented modifications to the Board's standard processes to ensure that the NIRB's obligations to maintain as high a level of public, community, interested party, and Proponent engagement as possible were met, while preserving the health and safety of all communities and participants involved.

The Board's modified processes were interrupted twice through its reconsideration of the Waterlines Proposal when COVID-19 cases were confirmed in Rankin Inlet. The first interruption was on November 17, 2020 when the NIRB cancelled the in-person Technical Meeting, Community Roundtable and Pre-Hearing Conference planned for November 23-26, 2020. The second interruption was in April 2021 when the Board cancelled the Public Hearing proposed for May 17 to 20, 2021.

Due to travel restrictions and gathering limits, the rescheduled Technical Meeting (conducted in January 2021), Community Roundtable and Pre-Hearing Conference (conducted in February 2021) and Public Hearing in Rankin Inlet (conducted in June 2021) relied on remote technology so that participants could attend these proceedings in person in Rankin Inlet or via audio or video links. Although these "hybrid" in-person/remote proceedings may have looked different than previous Board proceedings, the Board's objectives remained the same as for all the previous proceedings for the Meliadine Gold Mine project, and the Board benefitted from the information and knowledge shared by participants including the Proponent, Intervenors, Community Representatives from Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet, and Whale Cove, and interested members of the public who participated in person or remotely in the proceedings.

All in-person meetings were held in accordance with the respective Public Health Orders as well as the NIRB's own COVID-19 Protocols, which were reviewed, revised, and endorsed by the Government of Nunavut's Chief Public Health Officer ([Appendix A:](#)). The health and safety instructions were communicated to participants in advance of the meetings through email

¹ *NIRB Rules of Procedure*, September 3, 2009, Rule 32.1 at p. 18.

correspondence, to individuals during sign-in at the in-person location, through statements provided by a Public Health representative at the beginning of the proceedings, and by the Chairperson/NIRB staff in their remarks each day. All in-person participants successfully adapted to the demands of new practices and processes that were required to comply with orders of the Chief Public Health Officer. The Board sincerely appreciates the adaptability, flexibility, and good humour shown by all participants, as everyone adjusted to find ways to collaborate and contribute, as the Board continued the assessment during these unprecedented and challenging times.

1.4 The Original Meliadine Gold Mine Project

Agnico Eagle is currently operating the approved Meliadine Gold Mine Project, located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq region of Nunavut (see [Figure 1](#)). The approved mine plan outlines mining methods for the development of the five (5) separate mineral deposits in a phased approach, with Phase 1 focused on the underground and open pit mining of the Tiriganiaq deposit. The Meliadine Gold Mine Project was planned for development with construction from 2015 to 2019, operation from 2020 to 2027, closure from 2028 to 2030, and post-closure monitoring from 2031 onward.

The approved mining facilities for the Meliadine Gold Mine Project includes a plant site and accommodation buildings; three (3) ore stockpiles; a temporary overburden stockpile; a tailings storage facility; three (3) waste rock storage facilities; a water management system that includes containment ponds, water diversion channels, and retention dikes/berms; and a water treatment plant. At Itivia Harbour in Rankin Inlet, a fuel tank farm and laydown area were constructed adjacent to the existing Itivia dock to serve as a transfer and storage facility for materials and supplies before they are transported to the Meliadine mine site. The Rankin Inlet airport is used to bring personnel from outside of Rankin Inlet and any materials that cannot be barged. A bypass road and all-weather access road (AWAR) provide access to the mine site from the airport and Itivia Harbour.

The Type “A” Water Licence No: 2AM-MEL1631 for the Meliadine Gold Mine Project allows Agnico Eagle to collect groundwater from the underground workings of the mine and surface contact water in retention ponds on-site, treat this water until it meets discharge criteria and then discharge the treated water into Meliadine Lake.

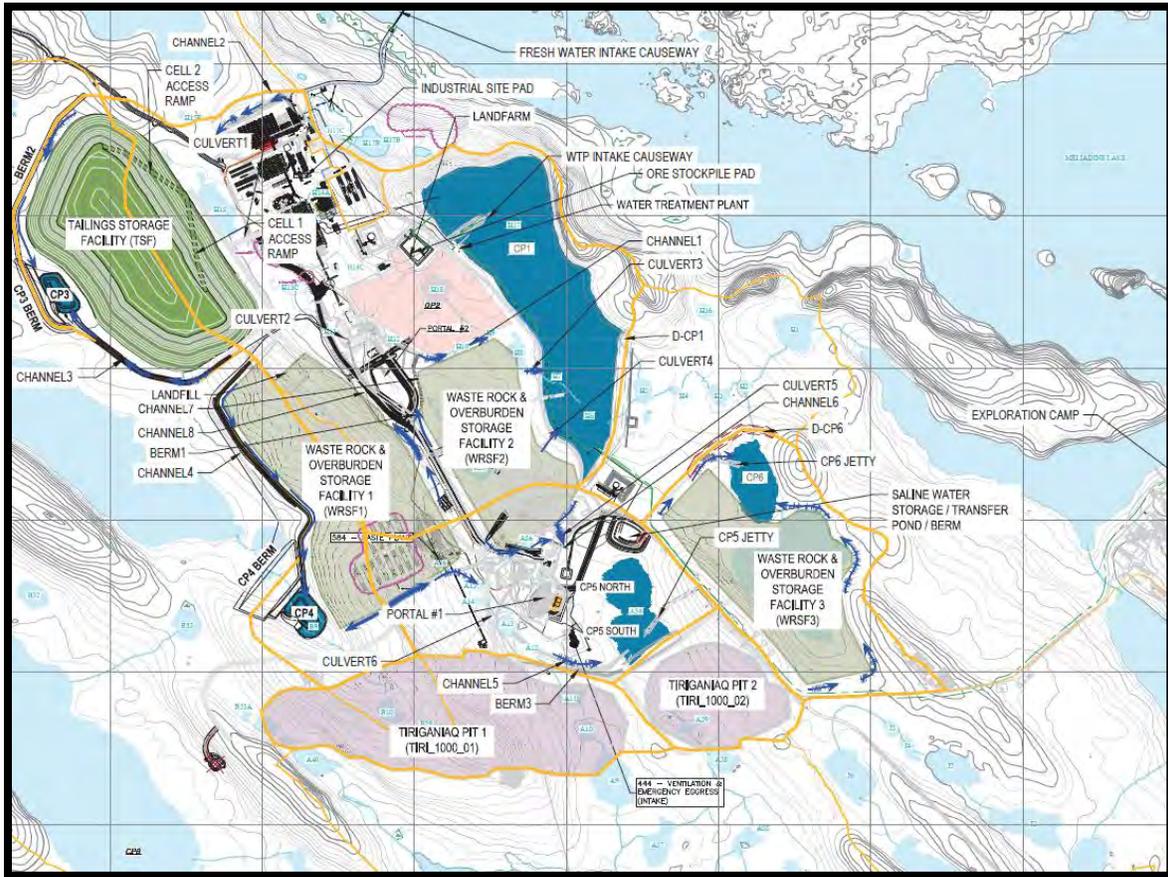


Figure 1. Overview and Site-layout - Meliadine Gold Mine Project

1.4.1 Exception of Phase 1 of the All-weather Access Road Under 12.10.2

Agnico Eagle submitted a stand-alone application for the construction and operation of a single lane AWAR, referenced as “Phase 1”, for consideration as an exception from the Review of the Meliadine Gold Mine Project under Article 12, Section 12.10.2(b) of the *Nunavut Agreement* as a pre-development activity. The AWAR Phase 1 was proposed solely for the purpose of transportation of fuel and materials to the Meliadine mine site to support the bulk sampling program as well as Agnico Eagle’s ongoing exploration in the area that was previously assessed via a screening by the Board (NIRB File No. 10EA018). The limited development of the AWAR Phase 1 was not included within the scope of the larger Meliadine Gold Mine Project. The road development necessary for full mine support, referenced as “Phase 2” of the AWAR, was later included within the NIRB’s Review and approval of the Meliadine Gold Mine Project in 2015; however, the full Phase 2 upgrade of the road has not yet been completed. At present, it is the Board’s understanding that Phase 2 of the AWAR construction will still be completed along with the completion of public access and a dock at the south end of Meliadine Lake.

1.4.2 Modification of the Original Project Under the 2018 Saline Effluent Discharge Proposal²

In 2018, Agnico Eagle submitted an application for an amendment to the Project Certificate No. 006 for the “Saline Effluent Discharge to the Marine Environment” Proposal (2018 Saline Effluent Discharge Proposal), which included the discharge of saline effluent (salty or saline groundwater) from the Tiriganiaq Underground Mine workings to the marine environment at Melvin Bay at a rate of 800 cubic metres (m³)/day (or 800,000 litres or 175,975 imperial gallons/day). The underground mine, like many mines in Nunavut, extends below the continuous permafrost layer and the open areas of the mine act as a collection area or sink for groundwater which flows into the underground mine during operation. Agnico Eagle proposed to supplement the approved practice of treating the saline effluent and discharging to Meliadine Lake, by discharging a portion of the treated saline effluent to the marine environment.

In February 2019, the Board approved the changes to the previously-approved Meliadine Gold Mine Project to allow the trucking and marine disposal of saline effluent under the 2018 Saline Effluent Discharge Proposal, and issued a revised Project Certificate No. 006, Amendment 1 associated with the Proposal. As a result, the saline effluent from the underground mine workings is currently transported by truck from the mine site via the AWAR to a temporary storage tank at Itivia Harbour, then discharged to Melvin Bay via an engineered diffuser approximately 230 metres (m) (755 feet) from the shoreline, 20 m (66 feet) below the surface. This discharge takes place only during the open water season, and the saline water is stored at the mine site in underground mine workings or in designated surface ponds during the winter months, as approved under the Type “A” Water Licence No: 2AM-MEL1631.

1.4.3 2020 Saline Discharge Strategy

In March 2020, the NIRB received correspondence from Agnico Eagle regarding proposed temporary measures to double the volume of saline effluent to be transported via truck to Itivia Harbour for discharge into Melvin Bay during the summer of 2020 from 800 m³/day to 1,600 m³/day or 800,000 to 1,600,000 litres/day or 175,975 to 351,950 imperial gallons/day (2020 Saline Discharge Strategy). The update also described the expected increase to truck traffic on the existing AWAR to transport the increased volume of saline effluent to Melvin Bay in the 2020 open water season. On June 9, 2020, following the NIRB’s consideration of the information provided by Agnico Eagle and written comment submissions provided by regulatory authorities, community members, and interested members of the public, the Board determined that the 2020 Saline Discharge Strategy did not constitute a significant modification that required further assessment by the NIRB. However, the Board requested that Agnico Eagle implement updates to its

² NIRB Reconsideration Report and Recommendations, for Agnico Eagle Mines Limited’s Saline Effluent Discharge to Marine Environment Proposal, NIRB File No. 11MN034, October 31, 2018. Public Registry ID.: 320879.

management and monitoring plans and enhancements to the existing reporting program to reflect the activities in the 2020 Saline Discharge Strategy (including the Terrestrial Environment Management and Monitoring Plan, Dust Management Plan, Air Quality Monitoring Plan, and Ocean Discharge Monitoring Plan), as well as conduct public engagement related to this modification.

Additionally, Agnico Eagle was requested to provide a summary of the results of its monitoring programs and any updates as described above to the NIRB and regulatory authorities on or before December 10, 2020 following the conclusion of the 2020 discharge activities and in advance of the 2020 Annual Report. The enhanced reporting ensured parties could assess the monitoring results to identify any additional required mitigation measures necessary to limit the potential for adverse ecosystemic effects, that should be implemented if increased discharges continued. The enhanced monitoring data and reporting could also be considered by the NIRB in the assessment of impacts undertaken through the NIRB's concurrent reconsideration of the terms and conditions of Project Certificate No. 006, Amendment 1 associated with the Waterlines Proposal.

1.4.4 2021 Saline Discharge Strategy

On January 20, 2021 the Nunavut Planning Commission (the Commission) reviewed Agnico Eagle's proposal to extend the "2020 Saline Discharge Strategy" for an additional year as the Board's assessment of the Waterlines Proposal was not completed due to delays in the process resulting from public health restrictions required to prevent the spread of COVID-19. The Commission determined that the proposed activities were exempt from screening by the NIRB because the increase of the amount of trucked saline effluent does not change the scope of the original or previously amended project activities. However, as this activity was a modification of the Meliadine Gold Mine Project, the Proponent was also encouraged to discuss potential implications for the project's monitoring program with the NIRB.

On April 13, 2021, Agnico Eagle provided the NIRB with an update on the Commission's conformity determination. Subsequently, on April 21, 2021 the NIRB requested Agnico Eagle provide a submission directly to the NIRB's public registry to allow the NIRB to confirm the monitoring requirements applicable to the activities under the Strategy. To date the NIRB is still awaiting the requested material.

1.5 Overview of the Saline Effluent Discharge to Marine Environment Project Proposal

The "Saline Effluent Discharge to Marine Environment" Project Proposal (Waterlines Proposal; [Figure 2](#)), that is the subject of this assessment, involves a proposed increase to the volume of saline effluent discharge to Melvin Bay in order to manage higher than originally predicted groundwater inflows to the Tiriganiaq Underground Mine workings as part of Agnico Eagle's long-term groundwater management strategy for the Meliadine Gold Mine Project. Agnico Eagle proposes to convey the saline effluent from the mine site via dual waterlines installed parallel and

adjacent to the AWAR and bypass road, for discharge into the marine environment at Melvin Bay. The Proponent noted that the Waterlines Proposal would replace the approved method of transporting saline effluent via truck.

The scope of the Waterlines Proposal as described by the Proponent and understood by the Board includes the following specific undertakings, works, or activities which would continue for the life of mine (2019-2032):

Waterlines Conveyance

- Construction and operation of a waterlines from the Meliadine mine site to the Itivia facility along the all-weather access road (AWAR) and bypass road specifically:
 - Installation of two (2) lines of 16-inch diameter pipe, running alongside the existing roads and within the easement of the existing roads ([Figure 2-3](#));

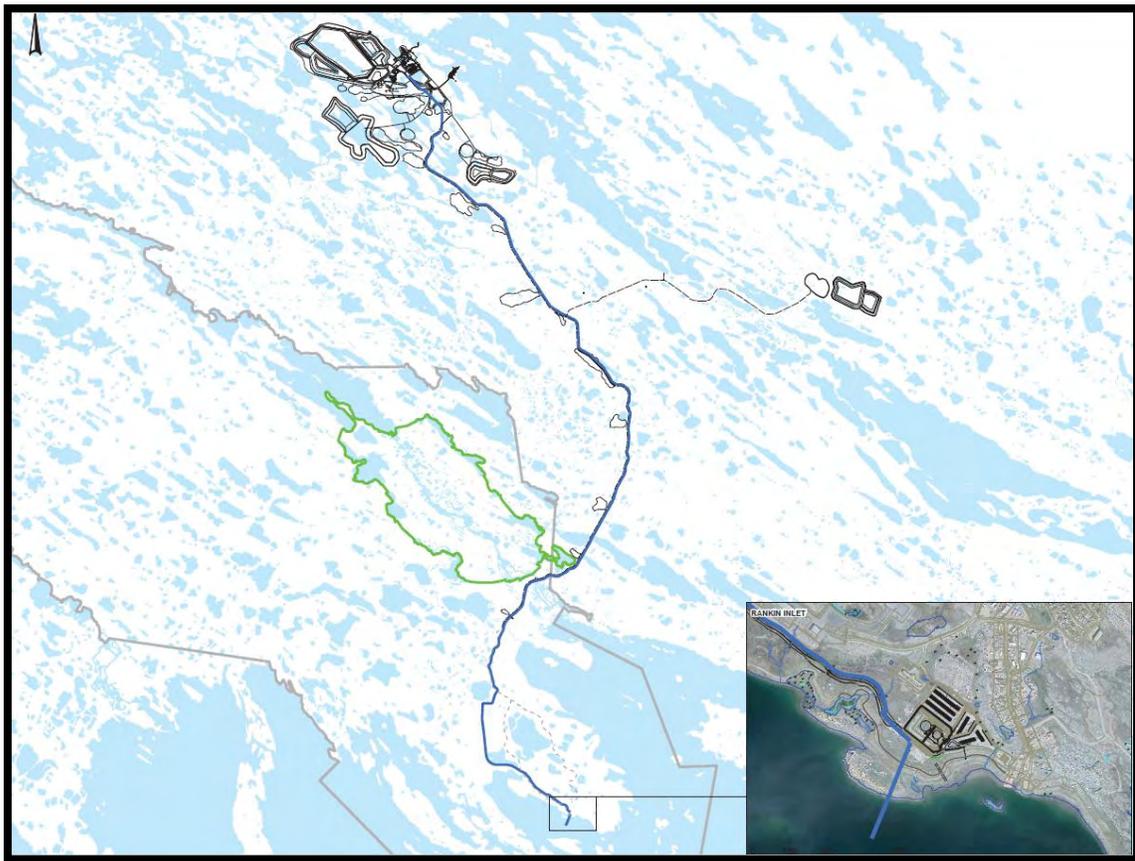


Figure 2. Proposed Route of the Waterlines

- Approximately 80 to 90% of length of the waterlines to be covered, with the remainder to be above ground ([Figure 4](#));

- Connection of waterlines to a modified pump house/sampling station at the Itivia facility;



Figure 3. Example Waterline Section Displayed by Agnico Eagle at the Public Hearing



Figure 4. Example Esker Material Displayed by Agnico Eagle at the Public Hearing

Ocean Discharge

- Installation, operation, and decommissioning of a new pipeline extending from the pump house at the existing Itivia facility to a discharge location in Melvin Bay ([Figure 5](#)):
 - Discharge location approximately 250 metres (m) or 820 feet northwest of the existing approved pipeline;
 - Use of horizontal directional drilling (HDD) method to construct an underground corridor for the pipeline into Melvin Bay;
 - Pipeline into Melvin Bay would extend underground from the pump house to approximately seven (7) m or 23 feet depth below the water surface, and continue on the sea floor to an engineered diffuser at 20 m or 66 feet depth; and
 - Pipeline would remain in place following decommissioning of the facility.
- Discharge of treated saline effluent into Melvin Bay at a rate of 6,000 m³ to a maximum of 12,000 m³/day during the open water season:
 - A potential alternative option was proposed by Agnico Eagle to also use the waterlines to transport treated surface contact water for discharge into the marine environment via the waterlines in order to reduce the volume of water being discharged to Meliadine Lake. Agnico Eagle predicted the maximum volume of treated surface contact water discharged via the waterlines would be 8,000 m³/day during the open water season.
 - The total maximum volume of combined saline effluent and surface contact water to be discharged via the waterlines into the marine environment would be 20,000 m³ per day during the open water season.

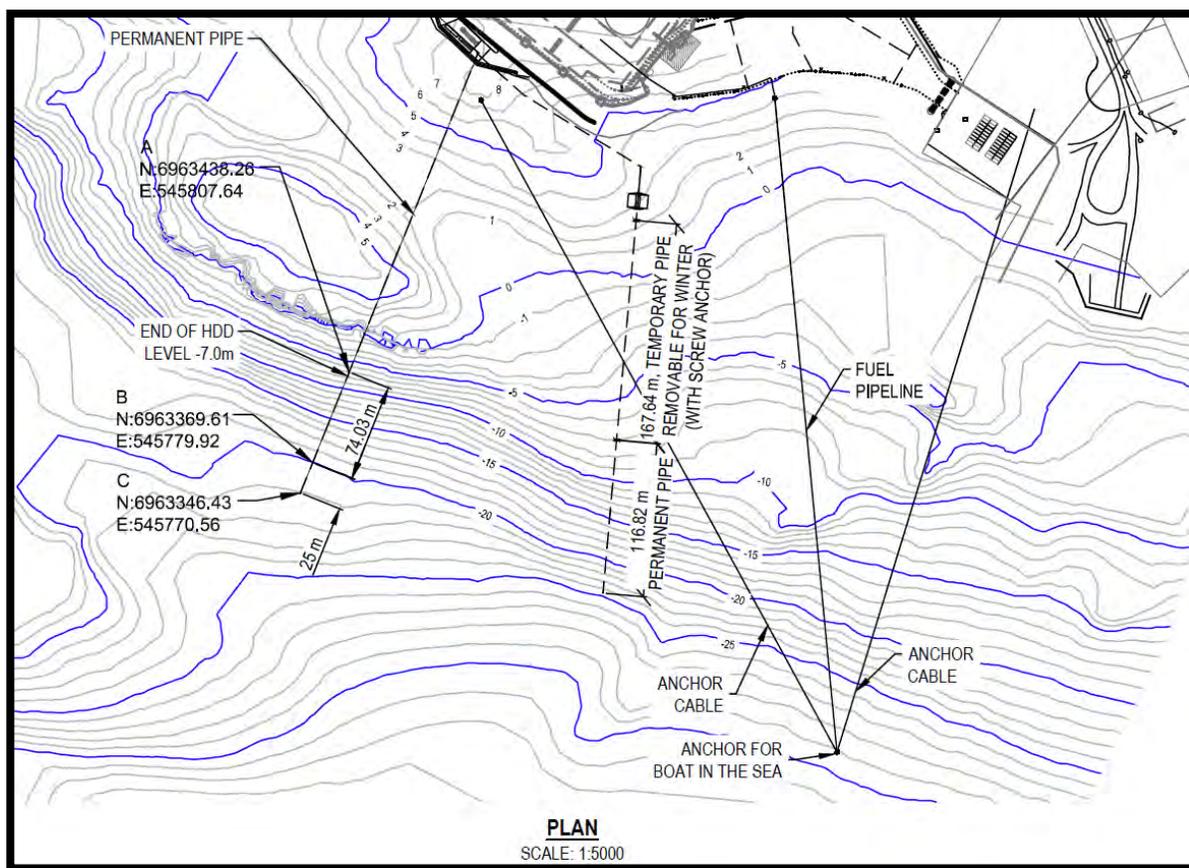


Figure 5. Location of the Proposed Discharge Pipeline and Diffuser

Following consultation with Rankin Inlet community members in 2020, Agnico Eagle committed to covering the waterlines (80 to 90% of the length) with gravel and/or sandy material sourced from local eskers.³ Agnico Eagle indicated that covering the waterlines would improve the ability of wildlife (specifically caribou, including caribou in the Qamanirjuaq herd) to cross through the area and would pose less of a barrier to caribou migration. Covering the waterlines was also predicted to provide hunters or other land users to cross the infrastructure and allow continued traditional land use access to the area.

Active discharge of saline effluent to Melvin Bay is proposed to occur only during the open water season (May through October), and the saline effluent would be stored underground and in surface containment ponds during the winter months (November to April).

As described in more detail in Section 3.1.1 of this report, Agnico Eagle stated in the Impact Statement Addendum (IS Addendum) that the significant increase in the daily discharge rate into the marine environment is required to reduce the inventory of saline water stored in surface storage

³ A ridge from 3 m to 300 m in height and from 100 m to 500 km long deposited as glaciers retreated and is organized in layers of gravel and sandy material.

ponds and to manage the predicted long-term groundwater inflow volumes from the Tiriganiaq Underground Mine. The Proponent noted that the amount of truck traffic necessary to transport this increased volume of water would be unsustainable, and therefore proposed to transport the treated saline water via waterlines as described in the Waterlines Proposal.

In addition to the discharge of treated saline effluent, the Proponent also evaluated as part of the Waterlines Proposal, the alternative of using the waterlines to discharge treated surface contact water (consisting of the collected surface water such as snow, rain, and runoff that has contacted the mine site which meets specific criteria to be released) into the marine environment. The treated surface contact water discharged via the waterlines would be diverted from the approved discharge location of Meliadine Lake, and this use of the waterlines would decrease the overall volume of water discharged to Meliadine Lake and would reduce the potential for environmental impacts to the freshwater environment. The Proponent has designed the waterlines with the capacity to accommodate a total volume of up to 20,000 m³/day of combined saline effluent and surface contact water.

Agnico Eagle noted that it would maintain the approved method of treatment of the saline effluent prior to discharge in a controlled manner through a new engineered diffuser, in compliance with regulated discharge criteria. Following installation of the new components, Agnico Eagle proposed to decommission the existing water storage tank, pump house, and diffuser at Itivia Harbour according to the practice set out in the Final Environmental Impact Statement (FEIS) Addendum for the 2018 Saline Effluent Discharge Proposal.

[Table 1](#) following compares the scope of the Waterlines Proposal against that of the approved Meliadine Gold Mine Project (as modified by the 2018 Saline Effluent Discharge Proposal) and describes the extent to which the modifications would be within the scope of existing terms and conditions of the existing Meliadine Gold Mine Project Certificate No. 006, Amendment 1.

Table 1: Summary Scope of the Waterlines Proposal as Compared to Approved Activities

Component	Comparison to Approved Activities	Project Certificate Amendment
Installation of waterlines	New component to be constructed adjacent to the existing all-weather access road	Potential revision to Terms and Conditions Nos.: 43, 44, 45, 47, 53, 54, 57, and 125. Additional Term and Condition may be required for development of a Terrestrial Advisory Group (TAG)

Component	Comparison to Approved Activities	Project Certificate Amendment
Conveyance of saline effluent via waterlines	New activity; replaces existing transport method by truck	Potential revision to Terms and Conditions Nos.: 118, 119, 124, and 125. Additional Terms and Conditions may be required for accidents and malfunctions.
Increased discharge volume to Melvin Bay	Discharge to Melvin Bay approved up to 800 m ³ /day. Waterlines Proposal would from 6,000-12,000 m ³ /day of saline effluent, and alternatively an additional 8,000 m ³ /day of surface contact water for combined capacity of 20,000 m ³ /day of discharge.	Potential revision to Terms and Conditions Nos.: 25 and 131.
Construction and installation of modified diffuser	Construction method of horizontal directional drilling (HDD) is a new activity. New diffuser design for increased discharge capacity.	Potential revision to Term and Condition No.: 128 and 130. Additional Term and Condition may be required.

1.6 Procedural History of the Project Proposal

1.6.1 Key Procedural Steps in the Assessment Process

[Table 2](#) that follows summarizes the key procedural steps associated with the NIRB's assessment of the Waterlines Proposal and the reconsideration of the terms and conditions of the Meliadine Gold Mine Project Certificate No. 006, Amendment 1, commencing with the referral from the Commission and concluding with the NIRB conducting a four (4) day Public Hearing in Rankin Inlet.

As the summary in Table 2 is not exhaustive, parties wishing to review the detailed reconsideration process for the NIRB's assessment for the Waterlines Proposal are encouraged to consult the complete listing of documentation available from the NIRB's online Public Registry at www.nirb.ca/project/125515.

Unfortunately, due to circumstances such as the limitations on non-essential travel into and out of the Qikiqtaaluk Region at the time of the Public Hearing, only three (3) members of the Board were able to attend the in-person Public Hearing in Rankin Inlet. Consequently, the full Board delegated the decision-making for the Waterlines Proposal to the three-member Panel of the Board. As required under Article 12, Section 12.2.14, of the *Nunavut Agreement* and s. 27 of the *NUPPAA*, the Panel consisted of the Board's Chairperson Marjorie Kaviq Kaluraq who was joined

by Phillip Kadlun, the Board’s Vice Chairperson and government-nominated Panel Member, and Allen Maghagak, the Panel Member nominated by a Designated Inuit Organization. As the full Board delegated the power to the Panel to complete the decision-making for the file, the Panel Members conducted the Public Hearing and were responsible for making the decision in respect of the Waterlines Proposal and providing this Report and Recommendations on behalf of the full Board.

Table 2: Procedural History of the Board's Assessment of the Waterlines Proposal

Date	Party	Process Steps	Notes
March 25, 2020	Nunavut Planning Commission	Conformity determination issued with referral to the NIRB for assessment	Positive conformity determination to Keewatin Regional Land Use Plan issued and the Waterlines Proposal is determined to be a significant modification to the previously approved project. Therefore, further assessment by the NIRB was required prior to issuance of any permits, licences, or other approvals by associated Regulatory Authorities.
April 7, 2020	Agnico Eagle	FEIS Addendum submitted	Agnico Eagle provided application to NIRB and indicated proposed activities would not require changes to the terms and conditions of Project Certificate No. 006.
April 14, 2020	NIRB	Request comments on the Proposal	Correspondence outlined preliminary scope and requested comments from parties regarding whether the Waterlines Proposal represents a significant modification to the approved project.
May 8, 2020	Parties	Comments submitted to NIRB	Comments on the proposed activities submitted by Nunavut Tunngavik Incorporated (NTI), Kivalliq Inuit Association (KIA), Government of Nunavut (GN), Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), Kivalliq Wildlife Board (KWB), Kangiqliniq Hunters and Trappers Organization (HTO), Baker Lake HTO, and Issatik HTO, and interested members of the public.
May 13, 2020	Agnico Eagle	Response to comments on the Proposal	Proponent clarified it had not applied for an amendment to Project Certificate No. 006.
June 9, 2020	NIRB	Notice of Reconsideration to Minister of Northern Affairs	Notice issued of the Board’s formal reconsideration of the terms and conditions of Project Certificate No. 006, because the NIRB determined that the Waterlines Proposal constituted a significant modification to the previously approved project.
June 15, 2020	NIRB	Guidance to Proponent for IS Addendum submission	June 15 (and July 17, 2020) the NIRB provided guidance to the Proponent regarding the Preparation of the IS Addendum.

Date	Party	Process Steps	Notes
June 19, 2020	Agnico Eagle	Correspondence regarding IS Addendum	Agnico Eagle clarified that the April 7, 2020 application was intended to serve as the Final Impact Statement Addendum.
June 16, 2020	CIRNAC	Participant Funding	Correspondence from CIRNAC to NIRB that participant funding would be available for the assessment of the Waterlines Proposal.
June 30, 2020	NIRB	Request for Comment on Reconsideration Process	Comments received from NTI, KIA, CIRNAC, ECCC, DFO, Health Canada (HC), Natural Resources Canada (NRCan), Transport Canada (TC), KWB, Kangiqliniq HTO, and members of the public (received on July 10, 2020).
July 15, 2020	Agnico Eagle	IS Addendum submission	Proponent submitted Waterline Consultation Report (Doc ID: 330754) in support of the Waterlines Proposal.
July 17, 2020	NIRB	Non-conformity determination issued	NIRB determined Agnico Eagle's April 7, 2020 Impact Statement submission did not conform to the requirements of the guidelines and provided guidance on submission of a revised IS Addendum. NIRB also requested clarification of scope components of the Waterlines Proposal; public engagement; and incorporation in Inuit Qaujimaningit and Inuit Qaujimajatuqangit. On July 24, 2020 Agnico Eagle indicated the requested materials would be provided in the week of August 10, 2020.
August 7, 2020	NIRB	Notice to Parties of anticipated process	Correspondence provided timelines and process guidance for the assessment of the Waterlines Proposal; considered feedback of Parties, Proponent, and the potential for modifications of the NIRB's processes due to the ongoing COVID-19 pandemic.
August 10, 2020	CIRNAC	CIRNAC Participant Funding Notice distributed	NIRB distributed participant funding guide and application forms on behalf of CIRNAC, completed applications to CIRNAC due September 11, 2020.
August 17, 2020	Agnico Eagle	Submission of revised IS Addendum	NIRB received revised IS Addendum and initiated internal review to determine conformity of the submission. On August 31, 2020 Proponent submitted Waterline Consultation Report #2 (Doc. ID: 331287) in support of the Proposal.
August 24-25, 2020	NIRB	Community Information Sessions	Information sessions hosted by NIRB staff in Rankin Inlet combined with annual monitoring update for the approved Meliadine Gold Mine Project.
August 27, 2020	NIRB	NIRB accepts revised IS Addendum and initiates technical review process	NIRB initiated technical review by requesting parties submit information requests. Correspondence included updated anticipated process timelines.

Date	Party	Process Steps	Notes
August 28, 2020	Responsible Minister	Response to Board Reconsideration notice	Minister of Northern Affairs provided correspondence giving guidance regarding the focus of the NIRB's assessment, and requested the NIRB include Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, and Baker Lake in the reconsideration process, (as communities that live within the Qamanirjuaq caribou herd's habitat).
September 9, 2020	NIRB	Scope Clarification	Correspondence requested the Proponent clarify several aspects of the scope of the Waterlines Proposal.
September 16, 2020	Agnico Eagle	Scope clarification provided	Correspondence provided on requested scope clarification.
September 22, 2020	NIRB	Final Scope Issued	NIRB issued finalized scope for the Waterlines Proposal.
September 24, 2020	NIRB	Public Notice of Technical Meeting, Community Roundtable and Pre-Hearing Conference	Formal notice issued for the Technical Meeting, Community Roundtable and Pre-Hearing Conference to be held from November 23-26, 2020 in Rankin Inlet. Included additional guidance on modifications to the format for the meetings due to COVID-19 pandemic.
September 25, 2020	Parties	Information Requests (IRs) submitted to NIRB	IRs submitted by KIA, GN, CIRNAC, ECCC, DFO, HC, TC, KWB, Kangiqliniq HTO, and members of the public. NIRB forwarded to Proponent on September 28, 2020 with additional IRs from the NIRB.
October 5-9, 2020	NIRB	Community Information Sessions in potentially affected communities	The NIRB staff held afternoon and evening sessions in Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet and Whale Cove. Representatives from the Northern Project Management Office, and KIA participated in the community tour. Community Information Session Summary Report issued December 1, 2020.
October 13, 2020	Agnico Eagle	IR Response Package submitted	Agnico Eagle provided response to parties' and public IRs and addressed the NIRB's requests for information including: Alternative Analysis and treatment of increased volume of saline effluent. CIRNAC, ECCC, and DFO submitted response to IRs directed to them by parties.
October 13, 2020	CIRNAC	Participant Funding awarded	Correspondence announced successful applicants for participant funding: KIA, KWB, Kangiqliniq HTO, Aqigiq HTO, Arviat HTO, Baker Lake HTO, Issatik HTO, and Sayisi Dene First Nation (SDFN).
October 14, 2020	NIRB	Commence technical review period	Request for submission of technical review comments from interested parties by November 12, 2020, (later extended to November 14, 2020 as requested).

Date	Party	Process Steps	Notes
October 16, 2020	NIRB	Request for community representatives	Correspondence sent to Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet and Whale Cove seeking nomination of three (3) representatives per community to attend Community Roundtable and Pre-Hearing Conference on November 25-26, 2020.
November 3, 2020	NIRB	Request for comments on <i>Draft</i> Agendas	Technical Meeting, Community Roundtable and Pre-Hearing Conference Agenda and detailed logistics circulated; no comments received on agenda.
November 12-14, 2020	Parties	Technical review comments submitted	Comments received from NTI, KIA, GN, CIRNAC, ECCC, DFO, HC, TC, KWB, Baker Lake HTO, and SDFN.
November 17, 2020	NIRB	Meetings suspended due to pandemic	NIRB postponed the Technical Meeting, Community Roundtable and Pre-Hearing Conference due to identification of confirmed COVID-19 cases in Nunavut, including Kivalliq communities of Rankin Inlet, Arviat and Whale Cove; noting direction would be provided when restrictions eased.
November 20, 2020	Agnico Eagle	Response to technical review comments	Agnico Eagle provided responses to Technical Comment submissions.
December 4, 2020	NIRB	Request for comments on rescheduling Technical Meeting	Technical Meeting proposed to be held December 14-15 via teleconference; parties requested to indicate their ability to participate. Comments were due by December 8, 2020 on ability to participate recognizing unavailability of Aqigiq HTO, Arviat HTO, and Issatik HTO, technical meeting postponed to 2021.
December 10, 2020	NIRB	Notice of rescheduled Technical Meeting, Community Roundtable and Pre-Hearing Conference	Announced Technical Meeting to be held January 11-12, 2021 via teleconference; Community Roundtable and Pre-Hearing Conference (PHC) rescheduled for February 11-12, 2021 via combined in-person and audio-video feed.
December 14, 2020	CIRNAC	Participant Funding Award	Participant funding awarded to Northlands Denesuline First Nation (NDFN).
January 4, 2021	NIRB	Logistics and Final Agenda circulated	Noting no comments were previously provided for the <i>draft</i> Agenda for the Technical Meeting, the <i>final</i> Agenda (based on the prior draft) was provided to parties.
January 11-12, 2021	NIRB	Technical Meeting	Technical meeting held via teleconference involving interested parties and observers.
February 3, 2021	NIRB	Logistics and Final Agenda circulated	Parties provided meeting details and <i>final</i> Agenda for the Community Roundtable and PHC

Date	Party	Process Steps	Notes
February 4, 2021	Agnico Eagle	Materials submitted	Presentation materials for the Community Roundtable filed with the Board.
February 5, 2021	Agnico Eagle	Commitments List	Updated commitments list from the Technical Meeting filed with the Board.
February 11-12, 2021	NIRB	Community Roundtable and PHC	In-person proceedings conducted in Rankin Inlet and audio-video links provided to remote participants. Parties were provided direction to submit comments on Feb. 5 commitments list.
February 22, 2021	Parties	Comments received on Commitments List	GN, CIRNAC, ECCC, DFO, HC, NRCan, TC, SDFN, and NDFN submitted comments on the Commitments List (i.e., whether they agreed with the wording, or had suggested revisions or additions to the commitments list).
March 11, 2021	NIRB	PHC Decision Report	The PHC Decision Report included direction to the Proponent and parties on the timing, process and participants in the next steps in the assessment.
March 11, 2021	NIRB	Notice of Public Hearing	Public Hearing to be held the week of May 17-21, 2021. Notice provided via newspaper advertisement, public notice, and correspondence. Included direction to parties for submission of requests for registered Intervenor status, filing of final written submissions and presentation materials. The NIRB did not receive any additional requests from parties seeking registered Intervenor status.
March 31, 2021	NIRB	Logistics <i>Draft</i> Public Hearing Agenda circulated	Parties invited to comment on the <i>Draft</i> Agenda.
April 12, 2021	Parties	Final written submissions filed	Parties file final written submissions with the NIRB. NIRB forwarded to the Proponent on April 13, 2021 with a request to file a response by April 28, 2021.
April 27, 2021	NIRB	Meetings suspended due to pandemic	NIRB postponed the Public Hearing reflecting the changing circumstances of COVID-19 outbreak in Iqaluit and cases of COVID-19 identified in Rankin Inlet; noting direction would be provided when public health restrictions eased.
May 11, 2021	NIRB	Notice of Public Hearing and <i>Final</i> Agenda circulated	NIRB released notice of rescheduling of the Public Hearing
May 17, 2021	Agnico Eagle	Response to final written submissions provided	NIRB circulated the response to parties on May 18, 2021.
May 21, 2021	Parties	Presentation materials	Parties file presentation materials to be relied on at the Public Hearing.

Date	Party	Process Steps	Notes
June 14-17, 2021	NIRB	Public Hearing in Rankin Inlet	Public Hearing technical sessions and Community Roundtable held. Representatives from the Proponent, registered Intervenor, designated representatives from the communities in the Kivalliq region, and members of the public from Rankin Inlet participated in-person and via audio and video links.

1.6.2 Participant Funding for the Assessment

The Northern Participant Funding Program, administered by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), supports effective public participation in development impact assessments undertaken by the NIRB in accordance with both the *Nunavut Agreement* (Article 12, Section 12.8.2) and relevant reconsideration provisions of *NuPPAA* (s. 112). Participant funding was made available for the NIRB’s assessment of the Waterlines Proposal and was awarded by CIRNAC to the following successful applicants:

- Kivalliq Inuit Association;
- Kivalliq Wildlife Board;
- Kangiqliniq Hunters and Trappers Organization;
- Aqigiq Hunters and Trappers Organization;
- Arviat Hunters and Trappers Organization;
- Baker Lake Hunters and Trappers Organization;
- Issatik Hunters and Trappers Organization;
- Northlands Denesuline First Nation; and
- Sayisi Dene First Nation.

The Board supported CIRNAC’s administration of participant funding for this assessment by circulating its public notice and application guide and forwarding applications to CIRNAC with additional justification on how these parties could provide valued perspectives for the assessment. Additionally, the NIRB remained in contact with the federal department tasked with negotiating the agreements and shared any feedback or communications received regarding the application or participation of agencies. The Board appreciates the work of CIRNAC and the federal government in supporting the participant-funding program generally, and in respect of this assessment specifically. The Board also acknowledges the program’s importance to recipients, providing support that enabled these parties to prepare for, participate effectively in, and make important contributions to the Board’s assessment.

1.6.3 Regulatory Regime and Related Processes Ongoing

During the Board's assessment, the Board, the Proponent, and Regulatory Authorities identified that the following regulatory enactments and legal instruments may regulate specific activities and components within the scope of the Waterlines Proposal:

- *Canadian Navigable Waters Act*, R.S.C. 1985, c. N-22;
- *Fisheries Act*, R.S.C. 1985, c. F-14;
 - *Metal and Diamond Mining Effluent Regulations*, (SOR/2002-222)
- *Species at Risk Act*, S.C. 2002, c. 29;
- *Migratory Birds Convention Act*, S.C. 1994, c. 22;
- *Arctic Waters Pollution Prevention Act*, R.S.C. 1985, c. A-12;
- *Canadian Environmental Protection Act*, S.C. 1999, c. 33;
- *Territorial Lands Act*, R.S.C. 1985, c. T-7;
- *Nunavut Act*, S.C. 1993, c. 28; and
 - *Nunavut Archaeological and Paleontological Site Regulations*, (SOR/2001-220)
- Kivalliq Inuit Association Road Lease KVRW11F02.

The Board notes that while the NIRB was conducting the assessment and reconsideration of the Waterlines Proposal, the Proponent also submitted a separate and distinct application to the Nunavut Water Board (NWB) to amend the Type "A" Water Licence 2AM-MEL1631 (Water Licence). The amendments to the Water Licence were sought by Agnico Eagle to allow for the discharge into Meliadine Lake of treated surface contact water containing higher levels of Total Dissolved Solids (TDS) than was previously authorized under the existing Water Licence. As the Water Licence amendment application was not a change to the scope of the NIRB's previous assessment of the Meliadine Gold Mine, the NWB proceeded to process the Water Licence amendment independently of the NIRB's consideration of the Waterlines Proposal. While the two (2) regulatory processes proceeded independently, because there was some overlap between the discussions of water quality and general water management at the Meliadine Gold Mine (including adaptive management planning measures) in both processes, there was some early confusion amongst the public and some parties regarding the scope of the NIRB's assessment of the Waterlines Proposal as distinct from the scope of the NWB's consideration of the Water Licence amendments. Consequently, both boards worked to communicate more clearly the differences in scope between the NIRB's assessment of the Waterlines Proposal and the NWB's consideration of the amendments to the Water Licence, but the NWB and the NIRB did not formally coordinate their processes.

1.7 Evidentiary Issues

1.7.1 *The Burden and Standard of Proof*

During the NIRB's assessment of the Waterlines Proposal, the burden of establishing that the Waterlines Proposal was consistent with the objectives of 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*) rested with the Proponent. This means that throughout the Board's assessment, the onus was on Agnico Eagle to demonstrate that either the predicted adverse ecosystemic or socio-economic effects associated with the Waterlines Proposal could be prevented, mitigated, or managed:

- if conducted under the existing terms and conditions and monitoring program established under Project Certificate No. 006, Amendment 1, or
- if conducted under amended terms and conditions in the Project Certificate and/or changes to the associated monitoring programs.

1.7.2 *The Precautionary Principle and Adaptive Management*

With respect to areas where there are substantial gaps in data or uncertainty regarding predicted effects, the Board was guided, as always, by the "precautionary principle". This concept, as cited in previous Impact Statement (IS) Guidelines, and as followed by Agnico Eagle during the preparation of the IS Addendum for the Waterlines Proposal is stated as follows:

Where there are threats of serious or irreversible damage, lack of full scientific certainty must not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

As was the case in the Board's previous Review of the Meliadine Gold Mine Project and the subsequent assessment of the 2018 Saline Effluent Discharge Proposal, the Board recognizes there may be substantial gaps in data, or uncertainty regarding predicted effects. During the Public Hearing for the Waterlines Proposal, several parties identified that there is considerable uncertainty remaining regarding the magnitude and extent of potential impacts to caribou migration and movement resulting from the proposed installation of the waterlines adjacent to the existing all-weather access road (AWAR). For example, the Government of Nunavut expressed concerns that the methods used to characterize the potential for project effects on caribou would potentially underestimate potential impacts.⁴ These concerns were also raised by the Kivalliq Inuit Association and the Sayisi Dene First Nation. Concerns that there is a lack of existing monitoring data to fully assess the potential impacts to caribou and other terrestrial wildlife from the proposed

⁴ See the presentation by G. Karlik, Government of Nunavut, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at pp. 291-293 and the responses to questioning on this topic provided by S. Atkinson, Government of Nunavut, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at pp. 300-301.

waterlines combined with the AWAR were summarized at the Public Hearing by the Kivalliq Wildlife Board as follows:

There are concerns that regional impacts on caribou are not being properly monitored and that more work needs to be -- more work needs to be done to understand how this project is and will impact the Qamanirjuaq caribou herd, and this is specifically beyond the immediate area around the mine and the all-weather access road along with the pipeline that is being proposed.⁵

The Board also acknowledges that there is uncertainty with respect to the magnitude of effects that could result if there was a spill or leakage of saline effluent from the waterlines or the marine discharge pipeline into the terrestrial or marine environments. This uncertainty was highlighted by the Kivalliq Wildlife Board during the Public Hearing, noting that “...it remains unclear what long-term impacts would be in the case of a minor spill in low points along the all-weather access road.”⁶ During the Community Roundtable Session of the Public Hearing, several Community Representatives also questioned Agnico Eagle with respect to the potential for effects on caribou, the terrestrial and freshwater environments if there were spills or leaks from the waterlines.⁷

Some uncertainty at the impact assessment stage of the regulatory process is expected, and it is not unusual for some uncertainty to remain, even at the end of the impact assessment process. However, in the face of this uncertainty, the Board expects the Proponent to apply the precautionary principle and to be prepared to address uncertainty in their effects predictions. This means that Agnico Eagle bears the onus to demonstrate to the Board’s satisfaction that despite the uncertainty surrounding the potential for some project effects, the Proponent has developed measures designed to prevent, mitigate, or reverse the potential adverse environmental and socio-economic impacts associated with the Waterlines Proposal.

As is the case in many of the Board’s assessments, the mechanism that Agnico Eagle has proposed to address uncertainty and the precautionary approach is through the adoption of “adaptive management” tools to address the potential for adverse impacts that may not be fully understood at the time of the assessment. The Board uses adaptive management to integrate effects predictions with monitoring, mitigation, and management functions. Adaptive management is an iterative approach that requires the use of existing monitoring data to compare the effects predicted to the effects identified in the monitoring program. If there are significant differences between the effects

⁵ C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 459, lines 8-15.

⁶ C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 463-464, lines 25-26 and line 1.

⁷ See for example H. Putumiraqtuq, Baker Lake HTO, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 466; H. Aggark, Aqigiq HTO, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 465 and 476; and G. Bussidor, Sayisi Dene First Nation, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.493 and pp. 496-497.

predicted and the effects identified, or if impact thresholds are met, various pre-defined “adaptive management” measures are implemented to prevent, mitigate, or reverse adverse effects.

In respect of the assessment of the Waterlines Proposal, and as discussed in more detail in Section [3.2.3](#) over the course of this assessment process, Agnico Eagle has developed an Adaptive Management Plan for water management for the purpose of addressing uncertainties in groundwater and surface water modelling and forecasts. The Proponent has also made efforts to incorporate adaptive management within the various management and monitoring plans applicable to the existing Meliadine Gold Mine Project as modified by the Waterlines Proposal, designed to address the remaining uncertainties of the effects assessment.

As summarized by Agnico Eagle during the Public Hearing:

Adaptive management is a process to provide flexibility. So it's a structured iterative approach to environmental management decision-making.

It's applicable to a project like ours. It's part of a dynamic natural system where uncertainty can be a significant factor. So we need the flexibility. We have to adapt to the circumstances. Our adaptive management plan provides that road map.⁸

The Board agrees that Agnico Eagle’s approach to addressing uncertainty through the development of a specific Adaptive Management Plan is a reasonable approach and the Board acknowledges that the initial draft of the Plan appears to be a response to the request of the Kivalliq Inuit Association (KIA) and the product of considerable collaboration between Agnico Eagle, the KIA, and other parties involved in the review of the Plan. However, during the assessment, both Agnico Eagle, the KIA, and some other Intervenors appeared to expect that if the NIRB were to recommend to the responsible Minister(s) that the Waterlines Proposal should be approved to proceed, that the NIRB would be “approving” the draft Adaptive Management Plan filed by Agnico Eagle with the Board during the assessment. This is not the approach to reviewing and considering adaptive management measures taken by the Board for previous assessments, nor for this assessment. As Adaptive Management Plans, by definition are required to be flexible, iterative, and adaptable to reflect evolving circumstances such as responding to data from monitoring, or from Inuit knowledge and local and community knowledge shared with the Proponent, it is counterintuitive for a Proponent to be “locked in” to implementing a specific version of the Adaptive Management Plan provided to the Board at a given point in time.

In addition, the specific adaptive management measures set out in the Adaptive Management Plan can vary considerably in terms of scale and scope. For example, some measures, such as improvements to monitoring programs, may well be within the scope of the previously-assessed

⁸ J. Quesnel, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 221, lines 14-21.

project, while other measures, such as the construction of additional or modified water management infrastructure, may not have been included within the scope of the previously-assessed project. Measures that are outside the scope of the Board's previous assessments could trigger the need for further assessment by the Board and/or be subject to additional regulatory permitting requirements such as amendments to existing permits and licences.

Consequently, the Board has not reviewed the Adaptive Management Plan provided by Agnico Eagle during the assessment with a view to "approving" the Adaptive Management Plan and its contents, including thresholds and adaptive management measures proposed by Agnico Eagle within the Plan. Rather, the Board has accepted the draft of the Adaptive Management Plan as information relevant to the Board's consideration of the measures proposed by Agnico Eagle to manage and mitigate potential project effects.

The Board's application of the precautionary principle is particularly evident in the recommended revisions and additions to the Terms and Conditions in Project Certificate No. 006, Amendment 1 addressing effects on caribou, spills, and the potential for impacts in the marine environment.⁹ In addition, the Board notes that throughout this assessment the Proponent, Intervenors, Community Representatives, interested members of the public, and the Board via the Board's Monitoring Officers for the Meliadine Gold Mine Project, have considered and referenced the monitoring data and mitigation and management measures already in use at the Meliadine Gold Mine Project to inform the assessment and the Board's associated recommendations.

1.7.3 Inuit Qaujimaningit

As indicated in the original Environmental Impact Statement (EIS) Guidelines for the Meliadine Gold Mine Project, the Board's previous decisions, and reflecting the minimum IS requirements set out under Article 12, Section 12.5.2 of the *Nunavut Agreement* and s. 101(3) of the *NuPPAA*, Inuit Qaujimaningit contributes vital information which is at the core of the NIRB's impact assessment processes. Inuit Qaujimaningit is meant to encompass local and community-based and ecological knowledge (both traditional and contemporary), which is rooted in the daily life of Inuit people and represents experience acquired over thousands of years of direct human contact with the environment.^{10,11} It also encompasses Inuit Traditional Knowledge (and variations thereof) as well as contemporary Inuit knowledge that reflects Inuit societal values and experience. With its emphasis on personal observation, collective experience and oral transmission over many generations, Inuit Qaujimaningit provides factual information on such matters as ecosystem function, social and economic well-being, and explanations of these facts and causal relations among them. In this regard, Inuit Qaujimaningit and Inuit Qaujimajatuqangit, Inuit practices, principles, and Inuit world views occupied a central role in this assessment by contributing to the

⁹ The specific amendments to the Project Certificate are presented in Section [8.3](#) of this Report.

¹⁰ Berkes, F. 1993. Traditional ecological knowledge in perspective. In: Inglis, J. (ed.), *Traditional Ecological Knowledge: Concepts and Cases*. Ottawa: Canadian Museum of Nature, pp. 1-9.

¹¹ Stevenson, M. G. 1996. Indigenous knowledge in environmental assessment. *Arctic*, 49(3), 278-291.

development of accurate baseline information; comparing predictions of effects for the existing Meliadine Gold Mine Project with the experiences of Inuit harvesters, traditional land users and community members; and assisting in the assessment of the magnitude of projected effects.

The Proponent was required to incorporate Inuit Qaujimaningit into its assessment of the Waterlines Proposal. In addition to Inuit Qaujimaningit provided as part of Agnico Eagle’s assessment of the Waterlines Proposal, Inuit Qaujimaningit was also freely shared with the Board during the Community Roundtable portions of both the Pre-Hearing Conference and the Public Hearing in the questions or responses provided by community-based Intervenors, Community Representatives, Elders, Inuit harvesters, and interested members of the public who attended in person during the proceedings in Rankin Inlet. The NIRB has benefitted from the Inuit Qaujimaningit provided in the Waterlines Proposal and shared by the participants throughout the assessment. As emphasized in the Board’s views, Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community Knowledge played a central role in the Board’s assessment of the Waterlines Proposal.

2 Public Consultation Opportunities

As set out in s. 112(4) of the *NuPPAA*, the Board has the discretion to develop the appropriate process and procedure when conducting a reconsideration of Project Certificate terms and conditions. The Board’s process for conducting the assessment of the Waterlines Proposal as a reconsideration included soliciting and receiving written comments from interested members of the public and the NIRB built awareness on process steps through the distribution of posts on community Facebook pages (e.g., Rankin Inlet, Arviat, Chesterfield Inlet, Baker Lake, and Whale Cover Community News Pages).

Table 3: NIRB Facebook Postings for the Waterlines Proposal

Notification	Dates Posted	Posts made to	Unique Views
Notification of the rescheduled Public Hearing June 14-17, 2021	May 11, 2021 May 27, 2021 June 3, 2021 June 11, 2021	NIRB Facebook Page and shared to Rankin Inlet News Page	1892 views
11MN034: News Release Re: Community Representatives for Public Hearing	May 19, 2021	NIRB Facebook Page then shared to Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet, and Whale Cove New Pages	987 viewers

Notification	Dates Posted	Posts made to	Unique Views
Rankin Inlet looking for an Interpreter for the Public Hearing	June 14, 2021	NIRB Facebook Page and shared to Rankin Inlet News Page	1599 viewers

2.1 Community Information Sessions

During the NIRB-hosted community information sessions about the Waterlines Proposal and the annual monitoring program update for the Meliadine Gold Mine Project held in Rankin Inlet on August 24 and 25, 2020 NIRB staff heard comments related to:

- Communication, include more plain language materials;
- Questions related to the waterline experiment set up along the AWAR;
- Observations that caribou and muskox would not cross the AWAR or the waterline;
- Comments related to:
 - Spills or leaks from waterline during operation,
 - How much of waterline would be covered to allow crossing by community members and caribou and other wildlife,
 - Vibrations from waterlines,
 - How long the waterlines would be in operation,
 - Marine wildlife concerns with discharge into Melvin bay including diffuser design,
 - Benefits of waterline,
 - Employment during operations and after if less trucks required to do the work,
- Impacts to traditional life and culture and if these were taken into consideration;
- Request that all [Kivalliq] communities be involved in the process; and
- Definition of significant modification.

On August 27 and 28, 2020, during the monitoring update held in Baker Lake regarding Agnico Eagle’s Meadowbank Gold Mine (NIRB File No. 03MN107, Project Certificate No. 004) and Whale Tail Pit (16MN056, Project Certificate No. 008) Projects, NIRB staff heard community members comment the following in relation to the Waterlines Proposal:

- Impacts to caribou and how that could affect Baker Lake;
- Information regarding what saline water related to the Meliadine project is as there were different definitions;
- How the waterlines would be installed and when the waterline would operate; and
- Long-term plans for Meliadine mine related to underground portions and saline water disposal.

During the October 2020 NIRB-hosted information sessions, community members shared their comments and concerns on a variety of topics pertaining to Agnico Eagle's Waterlines Proposal, including some comments specific to the potential impacts from the saline effluent discharge, and some comments about the activities associated with the construction of two (2) new waterlines, as well as comments about the NIRB process and overall regulation of the Meliadine Gold Mine Project.

In relation to the Waterlines Proposal, community members noted the following:

- Community members in each community were very concerned with how the increased saline effluent discharge activities would affect the health of water bodies and movement and habitat of marine mammals within the area of focus. Specifically, community members were concerned that the increase in discharge would affect traditional hunting and fishing areas as well as irreversible impacts on marine wildlife and their habitats; and
- Concerns about adverse effects from the proposal on valued ecosystem components (caribou, terrestrial wildlife, birds, and their respective habitats), as well as traditional Inuit activities. Specifically, community members were concerned with how the waterlines would affect caribou migrations as well as hunter access to the area of focus.

Feedback on the approved Meliadine Gold Mine included:

- Lack of clarity about the ongoing monitoring of the Project and interest in additional monitoring of the areas around the project or wildlife which could be impacted;
- Concerns about the quality of the drinking water in and around the Project development area; and
- Discussion about ongoing negative impacts to various parts of the environment from dust generated by the Project.

Related to the NIRB process and regulation of development in the area, community members expressed frustration that hunters were being impacted and not compensated, and that overall, impacts and problems with the existing project were not being acknowledged. As a result, participants:

- Requested that the NIRB ensure there would be more opportunities for communities to provide comments on the Waterlines Proposal and that the assessment of the proposal should not be rushed;
- Requested that the results of research and monitoring should be clearly communicated back to the community either by the NIRB or other regulatory agencies; and
- Noted that the negative impacts (scaring animals and affecting the behaviour of wildlife) associated with ongoing exploration in the area and increased traffic have been observed by community members.

2.2 Attendance at the NIRB’s Technical Meeting, Community Roundtable and Pre-Hearing Conference, and Public Hearing

Although the Board’s process was modified as discussed in Section 1.3, additional modes of remote participation during the Board’s in-person proceedings were made available and utilized. Table 4 includes the Major Process steps for the Waterlines Proposal and breaks down participation by phone and video teleconference. Agnico Eagle also broadcast on radio the Final Hearing so the Rankin Inlet community members were able to listen from home or the cabin.

Table 4: Modes of Participation and Attendance at Key Events for the Waterlines Proposal

Event	Dates	Mode of Participation	Language and Number of Participants
Technical Meeting	Jan 11, 2021	Pragmatic Teleconference	Inuktitut - 0 (No translation requested) English - 99
	Jan 12, 2021	Pragmatic Teleconference	Inuktitut - 0 (No translation requested) English - 101
Community Roundtable and Pre-hearing Conference	Feb 11, 2021	BlueJeans Teleconference	Inuktitut - 9 English - 59
		Zoom (Video conference)	Inuktitut / English - 82
	Feb 12, 2021	BlueJeans teleconference	Inuktitut - 16 English - 88
		Zoom (Video conference)	Inuktitut / English - 83
Public Hearing	June 14, 2021	BlueJeans teleconference	Inuktitut - 0* English - 25
		Zoom (Video conference)	Inuktitut / English - 62
	June 15, 2021	BlueJeans teleconference	Inuktitut - 0* English - 22

Event	Dates	Mode of Participation	Language and Number of Participants
Public Hearing Cont.		Zoom (Video conference)	Inuktitut / English - 66
	June 16, 2021	BlueJeans teleconference	Inuktitut - 0* English - 29
		Zoom (Video conference)	Inuktitut / English – 62
	June 17, 2021	BlueJeans teleconference	Inuktitut – 0* English - 19
		Zoom (Video conference)	Inuktitut/English - 51

*No individuals signed onto the Inuktitut telephone line but may have been participating on the English line.

2.3 Technical Meeting

The Technical Meeting was facilitated by the NIRB via teleconference on January 11 and 12, 2021 following the postponement of the meeting in November 2020. This meeting was an opportunity to bring technical reviewers together with the Board’s staff in an effort to address technical issues associated with the IS Addendum and to achieve further clarity and/or resolution on topics where reviewers had questions or did not support the methodology, analyses or conclusions contained in the IS Addendum. The following parties participated:

- Agnico Eagle Mines Limited;
- Nunavut Tunngavik Incorporated;
- Kivalliq Inuit Association;
- Government of Nunavut;
- Government of Canada represented by the following departments, also coordinated through Northern Projects Management Office and Department of Justice including:
 - Crown-Indigenous Relations and Northern Affairs Canada;
 - Environment and Climate Change Canada;
 - Fisheries and Oceans Canada;
 - Natural Resources Canada;
 - Transport Canada;
 - Health Canada;

- Kivalliq Wildlife Board;
- Kangiqliniq Hunters and Trappers Organization;
- Baker Lake Hunters and Trappers Organization;
- Northlands Denesuline First Nation; and
- Sayisi Dene First Nation.

Details regarding the topics discussed and commitments made during the Technical Meeting were provided in the NIRB's Pre-hearing Conference Decision Report.¹²

2.4 Community Roundtable and Pre-Hearing Conference

On February 11 and 12, 2021 the NIRB's chairperson and staff facilitated the Community Roundtable and Pre-Hearing Conference and the NIRB invited representatives from the Kivalliq communities of Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet, and Whale Cove. The NIRB invited three (3) representatives from each of the Nunavut communities: one (1) representative to be appointed by each community's Hamlet, HTO, and the local KIA office, with encouragement to support representation of the community's Elders, Women, or Youth. With the exception of Arviat representatives who were unable to attend due public health restrictions on travel, representatives from each of the Kivalliq communities were present in-person during the Community Roundtable and Pre-Hearing Conference. The oral format of the meetings allowed the community representatives to observe presentations delivered by Agnico Eagle and participate in the resulting discussion that occurred.

The key comments, questions posed, issues raised and topics discussed by Community Representatives and members of the public during the Community Roundtable and Pre-Hearing Conference were summarized in the NIRB's Pre-Hearing Conference Decision Report for the file.¹¹

2.5 Public Hearing

An in-person Public Hearing, with audio and video linkages was held over four (4) days (June 14 to 17, 2021) in Rankin Inlet. The Public Hearing included a technical session with registered Intervenor, that included presentations and questions from community-based Hunters and Trappers Organizations, followed by a focused Community Roundtable session with participation from designated Community Representatives from Arviat, Baker Lake, Chesterfield Inlet, Rankin Inlet, and Whale Cove and members from the general public who attended the proceedings in-person in Rankin Inlet.

¹² NIRB, *Pre-Hearing Conference Decision Report for Agnico Eagle Mines Limited's Saline Effluent Discharge to Marine Environment Proposal Related to the Meliadine Gold Mine Project*, NIRB File No. 11MN034, March 11, 2021, Public Registry ID: 333935 (English) and 334239 (Inuktitut).

[Table 5](#) gives a summary of some of the key issues raised by members of the public and Community Representatives during the course of the Public Hearing. Anyone wishing to review the comments in full is invited to consult the Public Hearing Transcript.¹³

Table 5: Summary of Key Issues Raised by Members of the Public and Community Representatives

Subject	Issues/Concerns/Comments
ECOSYSTEMIC EFFECTS	
Air Emissions	There are gases and dust coming from the mine; and there is concern that animals who eat vegetation are being affected by the emissions settling on the vegetation.
Baseline data	Is there baseline data to draw from to inform the people of Rankin Inlet about the existing conditions at the site so that any effects can be identified early and the communities can be informed?
Birds	We have noticed that we have to go further away to harvest eggs in recent years.
Caribou	It has been about 10 years since the communities in the area have seen the large scale migration of caribou from the Qamanirjuaq herd, and there are concerns about whether there would be further impacts to the herd from this proposal.
Caribou	Our parents knew exactly where the caribou trails were that were followed by the caribou, but when caribou see something new on their traditional trails, they move away and they feel as though they lost their trail and are stressed.
Caribou	On the east end of the all-weather access road there was a pile up of pipes and rocks along the road and we observed the caribou laying down along this area because it didn't seem like they wanted to cross.
Caribou	Caribou may cross over the buried pipe, but they will know that something about their trails is different; they may smell the pipe and the saline water and they may behave as though their trails have been lost.

¹³ See for example the comments provided during the Community Roundtable evening session, NIRB Public Hearing File No. 11MN034 Transcript, Vol. 3, June 16, 2021, pp. 524-627.

Subject	Issues/Concerns/Comments
Caribou	Caribou and fish migrate through this area, but when an animal senses something new along their normal migration route they may change the route.
Caribou	Communities have noticed changes in migration since the all-weather access road has been constructed; for example, last year the caribou didn't cross through the narrows where the water pump station is and the caribou then went towards Chesterfield Inlet.
Caribou	Caribou are no longer coming into the area surrounding the mine; they used to be plentiful, but now they are no longer there.
Caribou	Where the mine site sits, it already acts as a barrier, why would the mine place another barrier to the caribou and also to the harvesters accessing the land for hunting and fishing?
Caribou	Agnico Eagle should consider installing poles that have reflectors to mark the edge of the roadway, rather than using flags because when it is windy the flags make too much noise and scare the caribou. Agnico Eagle should use poles with reflectors to mark the side of the roads because the flags make too much noise.
Caribou	If caribou were to drink the saline water (e.g., when it is spilled and pools onto the land), would it affect the health of the animals who drink it?
Caribou	Although some people are concerned that if the saline effluent were to leak from the waterline onto the land that the caribou would get sick from drinking the salty water, but in Arviat we have seen caribou eat seaweed, which contains a lot of salt and the caribou seem to be fine. If the saline effluent does not contain other chemicals, and is similar to sea water, it does not seem the caribou would be harmed.
Caribou	In Baker Lake, we have noticed that the fat is different in caribou when they come from a saltwater environment and the ones that are already on the land, so we understand there are concerns about what the caribou eat and how much salt is in what they eat.

Subject	Issues/Concerns/Comments
Caribou	The Elders asked Agnico Eagle to cover the waterline to lessen the disturbance to caribou migration, and we appreciate that was done and the covered waterline has reduced the potential effects on caribou.
Caribou	In many of the communities they are hungry for traditional food, and our main diet, is the caribou, and so the mine has to be vigilant to prevent effects that could change the way the caribou migrate in the Region.
Caribou	Some communities may support the waterline project because less truck traffic will reduce the dust and noise along the road and may interfere less with caribou migrations.
Climate Change	In Chesterfield Inlet we are seeing significant changes from global warming (it used to be that ice could be travelled on starting in November; now it is January), the ice underneath is not solid; we are seeing effects on the skins of seals; we are catching more walrus with skin infections too. Testing of the oceans has also shown that the ocean water is getting less salty, maybe due to more snow and ice melting into the water or other effects of global warming.
Climate Change	What is Agnico Eagle going to do to limit climate change effects when they are working on their Project?
Climate Change	How will climate change affect the marine mammals, and how will the installation of the waterline and discharge into the marine environment affect climate?
Country food	We need to protect our country foods; if mining affects our country foods, we cannot just grow our own food; this should be an important consideration at the mine site.
Cover Material	What material will Agnico Eagle use to bury the waterline?
Dust	I think that it is good that there will be less dust in Rankin Inlet when there are no trucks transporting the water along the bypass road.
Environmental Effects	What safeguards will be put in place to prevent harm for the current and future generations? We are concerned that once this generation is gone there will be no wildlife from the sea or from the land.

Subject	Issues/Concerns/Comments
Environmental Effects	I have concerns about the waterline because there are so many potential impacts to vegetation, animals, marine mammals, and humans.
Environmental Effects	Have concerns that over the past three years there have been environmental impacts because both the community of Rankin Inlet and the mine have been growing very fast and both will continue to grow.
Erosion	Agnico Eagle has indicated that the water pipeline will not be displaced by ice along the shoreline and that no erosion of the bank will occur as a result. How has Agnico Eagle prevented the potential for erosion?
Fish	What is the potential for effects on fish from the discharges into Meliadine Lake?
Fish	The char pass through the proposed discharge area during their migration from the ocean into the rivers; with the movement of the water around the diffuser, will the char be attracted to that area, and could this affect the migration of the char so that they will just be found around the drainage area from the flow of the waterline?
Fish	Will char migrating to the ocean and back up river be affected by passing through the area where the diffuser is discharging from the waterline?
Fish and Fish Habitat	The fish at Meliadine Lake are harder to catch because the water and the ice are different since Agnico Eagle has had to discharge into the Lake.
Food Chain	Could the saline effluent have a chain reaction that could affect the whole ecosystem?
Horizontal Drilling	For the waterline installation under the ground and into the ocean, how long is the section where the horizontal drilling will take place to install the pipe?
Ice	Will the release of the saline effluent into the ocean affect the formation of ice on the sea (many communities use the sea ice for travel)?
Invasive Species (Plants)	We have seen different plants growing along the all-weather access road. Climate change may have something to do with it too, but it is a concern that we have because the presence of these new plants could affect our wildlife.

Subject	Issues/Concerns/Comments
Marine Mammals	What is the potential for effects on marine mammals from the discharges into Itivia Harbour?
Marine Mammals	Recently, harvesters have reported coming across very contaminated seals, and we wonder whether the seals were harmed by the discharge of contaminated water.
Marine Environment	The communities that are close together (Baker Lake, Rankin Inlet, and Chesterfield Inlet) all value our ocean and the marine environment and do not want to see harm to the ocean, how has Agnico Eagle considered our concerns and the importance of the ocean to us?
Marine Environment	Itivia was once an isolated community that was a gathering spot for many nearby communities; it was an area where people went to harvest shellfish, and hunt seals for livelihood. But due to impacts from mining, it is now an area in limbo; where people are waiting for the marine environment to return to its original marine environmental state; pristine and undisturbed.
Marine Environment	Is there an inventory list of species that will be affected as a result of the residual waste introduced into the marine environment via the waterline?
Monitoring of Effects	How far from Itivia will Agnico Eagle be monitoring for the potential for effects – it could affect all along Hudson’s Bay, not just Melvin Bay.
Monitors	Is Agnico Eagle still employing caribou monitors because community members have had to go tell Agnico Eagle that the caribou were less than 5 miles away so that it triggers a shut down.
Noise	Will noise from the on-going discharge affect fish, fish habitat or marine mammals (seals, whales)?
Noise	In the water noise carries a long ways, so I am concerned that any sound from the diffuser into Itivia Bay could carry a long way and affect the fish or marine mammals.
Operating the Water Line	Will the waterline be operated non-stop once it is built, or will there be pauses in the operation of the waterline?

Subject	Issues/Concerns/Comments
Operating the Water Line	If the waterline is approved how long will it be used?
Operating the Water Line	Does Agnico Eagle not need to pump water through the waterline during the winter?
Operating/ Maintaining the Water Line	How will the pipeline be maintained so that there is no damage during freeze up?
Reclamation	How will Agnico Eagle reclaim the waterline?
Reclamation	Once Agnico Eagle has removed the waterline, where would the piping be disposed of? Would it just be sent to the local dump in Rankin Inlet?
Saline Effluent Quality	What is the salinity and pH of the water being released in the waterline compared to the ocean?
Saline Effluent Quality	What type of salt is in the saline effluent?
Saline Effluent Quality	Where is the saline water coming from? Is it just from underground, or is it from areas where there has been blasting?
Saline Groundwater Management	Is Agnico Eagle discharging saline groundwater from the Meadowbank mine too?
Saline Groundwater Management	How does Agnico Eagle manage the saline groundwater during the winter?
Saline Groundwater Management	Are the storage ponds used to store the saline effluent large enough to store all of the saline effluent generated during all the winter months?
Vegetation	Will there have to be restrictions on berry picking near the road way during the construction of the waterline?

Subject	Issues/Concerns/Comments
Vegetation	If there is dust deposited on the vegetation, will the animals who eat the plants be harmed?
Vegetation	Concerned that vegetation near the road will be very disturbed when the waterline is being installed.
Water pressure in the waterline	How much pressure will be pushed through the pipe when the waterline is discharging?
Water Management	Will Agnico Eagle continue to discharge into Meliadine Lake once the waterline is constructed? If so, what are the effects of the discharge into Meliadine Lake?
Water Management	How does Agnico Eagle manage the water in the winter?
Water Management	I would be concerned with the discharge of this water into the ocean during the winter under the ice because that could affect the ice and could concentrate the saline effluent because the water would not mix and would stay in place near the diffuser.
Water Quality	Will Agnico Eagle be discharging chemicals through the waterline and into the ocean?
Water Quality	Will the sea mammals be okay if they are exposed to this water?
Water Temperature	Will the water discharged through the waterline be warm, and could that attract fish or marine mammals?
Water Treatment	Will the water going into the waterline be treated at the site before it goes into the waterline?
Water Treatment	Agnico Eagle has stated that there are chemicals in the water that needed to be removed by treatment at their site before the water can go into the waterline – what are the chemical/chemicals that need to be removed for saline water to be discharged to the ocean?

Subject	Issues/Concerns/Comments
SOCIO-ECONOMIC EFFECTS	
Archaeological sites	Our ancestors lived in the area of the mine, there used to be tent rings, campsites and artifacts in that area, but this is gone now that the mine is there; we need to document our heritage before it is destroyed by mining activities; we need to document and protect everything on the land.
Best Practices	Our Elders teach us that if you pay respect to others, you will be shown respect, and we notice that Agnico Eagle is showing respect and advise Agnico Eagle that respect will return to you.
Best Practices	Trust is a precious thing and is so important, but it is hard to build; and is something that is earned. There are many reasons why our communities sometimes have difficulty trusting what is being said to us, and we all need to work on trusting each other and earning the trust of communities.
Communication	Communities need better access to technical support and advice before we come to Public Hearings, and require better communication about projects, potential effects, and how Inuit can participate in these processes as early as possible. We did not get clear indications about where, who and how we can get information about projects. All parties should work together to provide better education and communication about what is happening in our area.
Communication	How are community members able to get access to documents, such as monitoring reports, the Adaptive Management Plan, etc.?
Communication	There are issues with communication between government departments and the public that prevent communities from understanding this project and the processes for assessing and approving it. This needs to be improved.
Communication	Although we may disagree or argue about the mine and the waterline, it is important to have these debates so that we can understand each other and come to resolution on important issues.
Communication	In the past it has been helpful to have Elders go to the mine site and meet with Inuit employees to improve communication between Agnico Eagle and Inuit employees. At least once a month would be helpful.

Subject	Issues/Concerns/Comments
Community Support	When COVID-19 hit, and Inuit workers could not work at the mine anymore, Agnico Eagle was a big help. I have seen for myself that they have helped the communities, providing a lot of support and assistance, and distributing food. We really appreciated that, and it was like the old practices of Inuit giving gifts were being replayed.
Compensation	If there are damages to the ecosystem/caribou, etc., from the project, does Agnico Eagle have to pay compensation, and if so, where is it going to go? Would it go to Inuit, to KIA? And how is the compensation going to be used? Would compensation go to fund programs or be given directly to the impacted communities?
Culture, Resources and Land Use	Although it is regrettable in some ways that we cannot return to our ancestors' lifestyle, but we have to think about the future; if we all respect the <i>Nunavut Agreement</i> and what you have written down, we will all be protecting ourselves.
Education and Training	There is minimal education about processes like the Nunavut Impact Review Board's Public Hearings. Each and every one of us has to work to be educated about our role and the processes established under the <i>Nunavut Agreement</i> .
Employment Opportunities	How many staff members are working today in respect of the water trucking operations, and once the waterline is built, how many people will be employed in respect of the operation of the waterline?
Employment Opportunities	Will only non-Inuit be given employment during construction of the waterline, or will there be employment opportunities for local Inuit during construction?
Employment Opportunities	It is only proper that Inuit should get the additional work associated with the construction of the waterline as a priority.
Food Security	If there is a change in the ecosystem resulting from the Project, this could severely impact food security for local harvesters who rely on country food being available near to our communities.
Inuit Qaujimajatuqangit	There is very little recording of Inuit Qaujimajatuqangit now, and the youth do not ask questions about this knowledge and it is not being communicated, this needs to change.

Subject	Issues/Concerns/Comments
Inuit Qaujimajatuqangit	Inuit Qaujimajatuqangit is being lost and not used fully in respect of the projects that affect our lands.
Inuit Qaujimajatuqangit	Inuit Qaujimajatuqangit is something that is instilled in Inuit and is learned over time; and is about having knowledge and respect for the land.
Inuit Qaujimajatuqangit	Agnico Eagle states that they are incorporating Inuit Qaujimajatuqangit into the monitoring program, but this is difficult to do when we do not have common and agreed upon terminology for important concepts like “caribou deflection”.
Inuit Qaujimajatuqangit	It is very difficult to see how Inuit Qaujimajatuqangit is being used and applied effectively in the project when Inuit employees have not spoken at all during this Public Hearing.
Inuit Harvesting	As an Elder I know that we used to hunt and fish in the area near the mine; and I have noticed that people do not do the same harvesting near the mine site now that the mine is operating and our harvesting has had to change.
Land Use	Does Agnico Eagle have the authorization from the landowners to use the area next to the all-weather access road to install the waterline?
OTHER ISSUES RAISED	
Accidents, Spills and Malfunctions	How will Agnico Eagle deal with any spills that could take place when Agnico Eagle is using horizontal drilling to install the waterline under the ground and into the ocean?
Accidents, Spills and Malfunctions	What, and who will address issues if there is damage to the waterlines; who will fix the damage?
Accidents, Spills and Malfunctions	Will the community be informed about any spills or damage to the waterline, and if so, how?
Accidents, Spills and Malfunctions	What contingency plans are in place to handle a spill/emergency during the caribou migration when the road may have to be closed, or during a blizzard or other emergency when the road is closed?

Subject	Issues/Concerns/Comments
Accidents, Spills and Malfunctions	If there was a leak/spill from the waterline and the saline effluent/other water in the waterline pooled nearby, does Agnico Eagle have a plan in place to prevent caribou, who may be nearby, from drinking the saline effluent or other water in the waterline?
All-Weather Access Road	Will there be changes to the ability of people to cross the AWAR if the waterline is constructed?
All-Weather Access Road	In the past we have been told not to travel across certain parts of the road, and we get frustrated because the alternative routing is not clear and passing through the mine site is intimidating because there are huge vehicles there. If we are going to be told not to go through a certain route, Agnico Eagle must have to provide an alternate route for us to cross when we're crossing the mine site. We have to communicate with each other clearly and come to some resolution.
Community-based Monitoring	Would monitoring for the changes to the fish be included in the Terrestrial Advisory Group or some other form of community-based monitoring?
Cumulative Effects	If there are even any small impacts on the water, land and air, it can all add up and everything Inuit use can be affected, and Inuit can lose our access to, and use of our land. Who will be there for the Inuit affected by this cumulative damage?
Terrestrial Advisory Group (TAG)	Who were the original parties invited to join the Terrestrial Advisory Group in February 2021?
Terrestrial Advisory Group	In the beginning of the Meliadine Project there was little consideration of the communities getting together to work in groups like the TAG; but it is better if our communities can all work together; all the potentially affected communities are affected by mitigations and all communities should be involved in the TAG.
Terrestrial Advisory Group	Want to see the Nunavut Impact Review Board step into the role of monitoring the Project and functioning of the Terrestrial Advisory Group. The Hunters and Trappers Organizations simply do not have the funds and capacity to prepare for and fulfill the functions of the TAG.

3 Summary of the Proponent's Assessment of the Saline Effluent Discharge to Marine Environment Project Proposal¹⁴

3.1 Project Description

As described in more detail in Section 1.5 of this Report, the Saline Effluent Discharge to Marine Environment Project Proposal (Waterlines Proposal) proposes changes to the approved method of transporting treated saline effluent, from trucking to conveyance through dual waterlines, in order to accommodate an increased discharge volume of saline effluent into Melvin Bay. Before there were delays in the Board's assessment of the Waterlines Proposal caused by the COVID-19 pandemic, Agnico Eagle had proposed that construction would begin as early as May 2021 and active discharge would continue for the life of the mine, during open water season.

3.1.1 Need for the Project Amendment

As described by Agnico Eagle within the IS Addendum, the Tiriganiaq Underground Mine operates below the continuous permafrost layer, and groundwater flows through the bedrock via to the Underground Mine workings. Agnico Eagle indicated that the volume of saline effluent authorized for discharge to Melvin Bay under the previously approved 2018 Saline Effluent Discharge Proposal (800 m³/day or 800,000 litres or 175,975 gallons/day) is insufficient to manage the predicted groundwater inflows and the existing on-site water inventory maintained in various storage areas above and below ground on site. In order to operate the Underground Mine according to the mine plan, and empty the on-site saline water inventory, the Proponent proposed to discharge a larger volume of treated groundwater effluent to Melvin Bay under the Waterlines Proposal.

The proposed twin waterlines would allow up to 20,000 m³ (20,000,000 litres or 43,993,849 imperial gallons/day) of treated water to travel the lines per day during the open water season for the life of the Meliadine Gold Mine Project. Agnico Eagle noted that this increased volume of discharge is required in order to transport treated saline effluent for discharge into Melvin Bay. Agnico Eagle has proposed to discharge saline effluent at a rate of 6,000 to 12,000 m³/day (6,000,000 to 12,000,000 litres or 1,319,815 to 2,639,631 imperial gallons/day) initially, based on groundwater inflow predictions, extreme precipitation events, and current saline water inventory. The Proponent considers the Waterlines Proposal as a necessary component of its long-term groundwater management strategy for the Meliadine Gold Mine Project. During the assessment, the Proponent also proposed, the diversion of an additional 8,000 m³/day (8,000,000 litres or 1,759,753 imperial gallons/day) treated surface contact water via the waterlines and into Melvin Bay to minimize the discharge of this water into Meliadine Lake.

¹⁴ Unless otherwise identified, this section is summarized from Agnico Eagle's *Final Environmental Impact Statement Addendum – Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet*; Public Registry ID: 331124.

3.1.2 Project Phases

The Meliadine Gold Mine Project was previously approved for approximately four (4) years of construction (2015-2019), eight (8) years of operation (2020-2027), and three (3) years of closure (2028-2030), and post-closure activities to begin in 2031. The proposed discharge of saline effluent to the marine environment via the Waterlines Proposal would occur from 2022 to 2032 (10 years) coinciding with the life of mine. Agnico Eagle projected that approximately four (4) months for construction of the northern portion of the waterline and three (3) months of construction for the southern portion of the waterline, from 2021 to 2022, would be required. In addition, three (3) months for installation of the subsea pipeline and diffuser would be required, originally proposed to occur in the summer of 2021.

3.1.2.1 Construction and Operations

The construction phase of the Waterlines Proposal would include:

- i. installation of the waterlines in two (2) phases – north and south sections;
- ii. horizontal directional drilling (HDD) for subsea pipeline construction; and
- iii. commissioning of the diffuser and installation (pressure testing).

The equipment required to install the proposed project components included: excavators, 10-wheel tandem trucks, cranes, telehandlers, drilling rig, vacuum trucks, frac tanks, and lay-barge. The Proponent anticipates that the total workforce required for construction would be approximately 35 direct/indirect workers, of which the target for Inuit employment is 10 to 14 workers.

Operation and regular maintenance of the waterlines for the life of mine is not anticipated to require any additional workforce.

3.1.2.2 Decommissioning and Reclamation

Agnico Eagle stated that planned decommissioning activities would include:

- excavation of the covered sections of the waterlines;
- dismantling the lines, diffuser, and any other components;
- removal and disposal of these components in the Meliadine landfill; and
- scarification of the gravel/sand along the AWAR or bypass road along with the road embankments.

3.2 Summary of Potential Changes to Ecosystemic Effects

Agnico Eagle considered the impacts of the Waterlines Proposal to the ecosystemic environment through pathway analysis and assessed the potential effects (including cumulative effects) of the proposed activities in addition to the previously approved Meliadine Gold Mine Project (as modified by the 2018 Saline Effluent Discharge Proposal). The Proponent selected valued ecosystemic components (VECs) to assess potential effects of the proposed activities on terrestrial and marine environments, based on their role in the ecosystem and the value placed on them by

humans for traditional use and cultural purposes, where appropriate. Several interactions between VECs and the proposed project activities were carried forward in the assessment due to the concerns raised by community members during public engagement or sharing of Inuit Qaujimagatuqangit and Community and Traditional knowledge.

Agnico Eagle's assessment identified several primary pathways, through which effects could occur as a result of the proposed activities; however, the Proponent concluded that all primary pathways would result in effects that were negligible or non-significant.

[Table 6](#) below provides the summary of impact predictions and significance determinations as presented by Agnico Eagle in the IS Addendum for the applicable VECs and the predicted changes in the table are changes predicted by Agnico Eagle from what was previously assessed by the NIRB.¹⁵

¹⁵ *Final Environmental Impact Statement Addendum – Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet*; Public Registry ID: 331124.

Table 6: Summary of Agnico Eagle’s Predicted Ecosystemic Changes in Project Interactions and Factors Relating to Significance

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
Terrestrial Environment		
Air Quality <i>Positive change</i>	<ul style="list-style-type: none"> ▪ Effects from the Project are expected to be positive in the long-term compared to what was assessed in the 2018 IS because there will be a reduction in vehicular traffic through operations and closure of the Mine. ▪ While concerns from dust have been identified through IQ engagement and regulatory and community concerns. The reduction in truck traffic will reduce dust and result in a reduction in dust from road traffic. 	
Greenhouse Gases and Climate Change <i>Positive change</i>	<ul style="list-style-type: none"> ▪ Effects from the Project are expected to be positive compared to what was assessed in the 2018 IS because there will be a reduction in vehicular traffic and water treatment requirements. 	
Noise <i>Positive Change; minor impacts</i>	<ul style="list-style-type: none"> ▪ Effects due to the proposed activities are expected to be less than those assessed in the 2018 IS Addendum. Minimal seasonal decrease in traffic along the AWAR from the use of waterlines will likely result in a lower likelihood of sensory disturbance. ▪ Noise levels could be increased by construction activities during installation of the waterlines and diffuser. 	<ul style="list-style-type: none"> ▪ Equipment noise control systems and regular maintenance. ▪ Ongoing noise monitoring along the AWAR.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
Hydrogeology and Groundwater Quality <i>No change</i>	<ul style="list-style-type: none"> ▪ No potential for effects due to the proposed Project activities. 	
Hydrology <i>No change</i>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS as all activities are within the approved lease area of the AWAR and bypass road. 	
Freshwater quality and sediment quality <i>No change</i>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS as all activities are within the approved lease area of the AWAR and bypass road. 	
Fish and Fish Habitat <i>No change</i>	<ul style="list-style-type: none"> ▪ No discharge to surface freshwater bodies will be undertaken. ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS as all activities are within the approved lease area of the AWAR and bypass road. 	
Freshwater Plankton and Benthos <i>No change</i>	<ul style="list-style-type: none"> ▪ No discharge to surface freshwater bodies will be undertaken. ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS as all activities are within the approved lease area of the AWAR and bypass road. 	

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
Ecological Health <i>No change</i>	<ul style="list-style-type: none"> ▪ Ecological health was considered inherently as part of the assessment on marine species (as per the 2018 IS Addendum) and with terrestrial wildlife and vegetation. ▪ Concerns based on IQ and engagement related to the discharge of treated groundwater and related to caribou. 	
Soil and Terrain <i>Change; negligible minor impacts</i>	Potential minor impacts could result from: <ul style="list-style-type: none"> ▪ Spills or accidental release of saline effluent from the waterline along the AWAR could negatively affect soil quality. ▪ Physical alteration due to earthworks, construction, and ground disturbance. ▪ No effects expected with the small-scale activities as compared to original assessment in 2014 and are within the approved lease of the AWAR and bypass. 	<ul style="list-style-type: none"> ▪ Adherence to mitigations for the AWAR and mitigation and response procedures outlined in the Spill Contingency Plan. ▪ Response measures for a spill include containment, removal and/or recovery, containment berms, long-term soil treatment. ▪ Installation of fibre optic leak detection system. ▪ Toll-free number for community members to report spill or problem along the waterlines. ▪ Minimize footprint and ground disturbance; engineer to promote permafrost growth.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Vegetation</p> <p><i>Change; negligible minor impacts</i></p>	<ul style="list-style-type: none"> ▪ Spills or accidental release of saline effluent from the waterline along the AWAR. ▪ Physical loss or alteration from construction of the waterline, discharge pipe and diffuser. 	<ul style="list-style-type: none"> ▪ Adherence to mitigations for the AWAR, and mitigation and response procedures outlined in the Spill Contingency Plan. ▪ Response measures for a spill include removal and/or recovery, containment berms, or long-term soil treatment. ▪ Installation of fibre optic leak detection system. ▪ Toll-free number for community members to report spill or problem along the waterline. ▪ Use existing roads and easements; minimize footprint.
<p>Terrestrial Wildlife (focus on caribou)</p> <p><i>Change; minor impacts</i></p>	<p>Potential impacts to terrestrial wildlife and specifically caribou could result from:</p> <ul style="list-style-type: none"> ▪ Spills or accidental release of saline effluent from the waterline along the AWAR. ▪ Contact with waterlines causing injury or mortality to individual animals. ▪ Sensory disturbance can change habitat quality and alter or disrupt movement behaviour. 	<ul style="list-style-type: none"> ▪ Adherence to mitigations for the AWAR, mitigation and response procedures outlined in the Spill Contingency Plan, and Terrestrial Environment Management and Monitoring Plan (TEMMP). ▪ Response measures for a spill include removal and/or recovery, containment berms, long-term soil treatment. ▪ Installation of fibre optic leak detection system. ▪ Toll-free number for community members to report spill or problem along the waterline. ▪ Collaborate with Kangiqliniq HTO to conduct wildlife surveys and other monitoring activities. Include long-term monitoring to inform adaptive management.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
		<ul style="list-style-type: none"> ▪ Design and engineering of waterlines to reduce possible obstruction or disruption of wildlife movement. ▪ Install waterlines outside of sensitive time of year for caribou.
<p>Birds</p> <p><i>Change; negligible minor impacts</i></p>	<p>Potential minor impacts could occur from:</p> <ul style="list-style-type: none"> ▪ Sensory disturbance from noise generated during construction activities may alter bird behaviour. ▪ Construction of waterlines could cause potential nest disturbance for birds and raptors. 	<ul style="list-style-type: none"> ▪ Adherence to <i>Migratory Birds Convention Act</i> and other relevant legislation, or management and monitoring plans. ▪ Avoid construction during nesting season. ▪ Develop nest-specific management and monitoring plan to minimize disturbance and inform future activities.
<p>Raptors</p>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS as all activities are within the approved lease area of the AWAR and bypass road. 	<ul style="list-style-type: none"> ▪ Use monitoring data and research from Arctic Raptor Group to determine location of raptor nests in the study area.
Marine Environment		
<p>Marine Sediment and Water Quality</p> <p><i>No change and/or negligible minor impacts</i></p>	<p>Direct and indirect effects could result from disturbance from in-water construction activities.</p>	<ul style="list-style-type: none"> ▪ While there may be some minor changes to habitat quality, they are expected be short-term in duration or restricted to the mixing zone. Therefore, effects due to the proposed activities are expected to be negligible with application of following best practices, suitable mitigation measures and adherence to the current Project Certificate conditions and federal regulations

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Marine Fish and Fish Habitat (including Benthic Invertebrates) <i>No change and/or negligible minor impacts</i></p>	<p>Direct and indirect effects could result from:</p> <ul style="list-style-type: none"> ▪ Accidental release of treated groundwater effluent from an unknown location along the discharge pipe. ▪ In-water works and presence of the discharge pipe could affect health and survivorship, or habitat quality. Any impacts would occur over short time period during construction. ▪ Discharge could affect habitat quality, and health and survivorship. ▪ Reduction in sea ice thickness or timing of freeze-up could impact habitat quality. 	<ul style="list-style-type: none"> ▪ Adherence and implementation of Ocean Discharge Monitoring Plan, Risk Management and Emergency Response Plan, Erosion and Sediment Control Plan, Spill Contingency Plan, other applicable monitoring programs and adaptive management. ▪ Handling systems engineered to minimize risk of accidental spills. ▪ Best management practices for erosion and sediment control. ▪ Placement of discharge pipe and diffuser to avoid sensitive habitats. ▪ Water quality monitoring and reporting during construction. ▪ Adherence to regulatory requirements for temperature and water quality (e.g., treatment prior to discharge, toxicity testing). ▪ Design of diffuser to promote effective dilution and mixing in Melvin Bay. ▪ Discharge in summer months only.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Marine Mammals <i>No change and/or negligible minor impacts</i></p>	<p>Potential effects could result from:</p> <ul style="list-style-type: none"> ▪ Accidental release of treated groundwater effluent from an unknown location along the discharge pipe. ▪ In-water works and presence of the discharge pipe could affect health and survivorship, or habitat quality. Any impacts would occur over short time period during construction. ▪ Discharge could affect habitat quality, and health and survivorship. ▪ Reduction in sea ice thickness or timing of freeze-up could impact habitat quality. 	<ul style="list-style-type: none"> ▪ Adherence and implementation of Ocean Discharge Monitoring Plan, Risk Management and Emergency Response Plan, Erosion and Sediment Control Plan, Spill Contingency Plan, other applicable monitoring programs and adaptive management. ▪ Handling systems engineered to minimize risk of accidental spills. ▪ Best management practices for erosion and sediment control. ▪ Placement of discharge pipe and diffuser to avoid sensitive habitats. ▪ Water quality monitoring and reporting during construction. ▪ Adherence to regulatory requirements for temperature and water quality (e.g., treatment prior to discharge, toxicity testing). ▪ Discharge in summer months only.
<p>Marine Birds <i>No change and/or negligible minor impacts</i></p>	<ul style="list-style-type: none"> ▪ Sensory disturbance from structural lighting and in-air noise from nearshore activities could change the health and mortality risk of marine birds or alter behaviour. ▪ Accidental release of treated groundwater effluent from an unknown location along the discharge pipe. ▪ Reduction in sea ice thickness or timing of freeze-up could impact habitat quality. 	<ul style="list-style-type: none"> ▪ Shielding/angling of lights where feasible. ▪ Activities scheduled during daylight hours when practical. ▪ Adherence and implementation of Ocean Discharge Monitoring Plan, Risk Management and Emergency Response Plan, Spill Contingency Plan, other applicable monitoring programs and adaptive management.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
		<ul style="list-style-type: none"> ▪ Adherence to regulatory requirements for temperature and water quality (e.g., treatment prior to discharge, toxicity testing). ▪ Discharge in summer months only.

The Proponent's assessment focused on those VECs identified as new for the Waterlines Proposal, which were determined to have minor to primary interactions with the proposed activities, and therefore the potential for impacts to occur was identified as minimal.

With regards to the installation of the waterlines along the AWAR, Agnico Eagle has identified that a spill or accidental release of saline effluent could result in minor and localized changes to soil quality, vegetation, and wildlife habitat. The Proponent has incorporated design features and mitigation measures, such as a 24-hour fibre optic leak detection system to reduce potential effects from spills or accidents. Agnico Eagle has considered community feedback, obtained through consultation efforts, in its mitigation and monitoring program, which includes a toll-free spill report line, and enhancement of its spill monitoring. In the event of a spill or accidental release, the saline effluent is predicted to be unlikely to have negative impacts to wildlife, as the saline effluent is treated to comply with *Metal and Diamond Mining Effluent Regulations (MDMER)*¹⁶ prior to discharge. The Proponent anticipates that with the application of these mitigation measures and implementation of the measures within the Spill Contingency Plan, that a potential spill or release of saline effluent from the waterlines would have negligible effects on vegetation abundance and distribution or on wildlife populations.

3.2.1 Terrestrial Wildlife (including Birds)

Agnico Eagle identified that wildlife (caribou) interaction with the waterlines could cause injury or mortality to individual animals and potentially affect population sizes. Caribou from the Qamanirjuaq herd use the area surrounding the AWAR during the post-calving and early summer periods and have potential to cross the waterlines. Agnico Eagle has committed to waterlines of 16 inches (40 centimetres) in diameter, that are covered with esker material, and installed outside of sensitive times of year for caribou. With adherence to the mitigation measures already in place for the approved project as per the Terrestrial Environment Management and Monitoring Plan (TEMMP), the Proponent expects negligible impacts to wildlife mortality and wildlife populations as a result of physical hazards associated with the waterlines.

It is anticipated that the Waterlines Proposal would result in an overall and long-term reduction in sensory disturbance to terrestrial wildlife due to the elimination of truck traffic for the transport of saline effluent. However, some noise would be generated from construction activities during installation of the waterlines, subsea pipeline, and diffuser. Agnico Eagle noted that any noise would be marginally perceivable against baseline levels and/or would be similar to travel and activity along the AWAR during peak usage (assessed through the 2014 FEIS submitted for the original Meliadine Gold Mine Project). Any effects from sensory disturbance due to noise from construction activities to wildlife and bird behaviour are expected to be negligible.

¹⁶ SOR/2002-222.

Agnico Eagle further noted that sensory disturbance from the waterlines could cause caribou to be delayed in their movements during waterline installation and that the waterlines could act as a temporary barrier to caribou movement. The Proponent anticipates that caribou would adapt to the physical presence of the waterlines following a period of adjustment. Agnico Eagle predicted that the magnitude (intensity) of potential effects of the waterlines on caribou is considered low given the number of days they spend in the area and the cyclical nature of their migration route, limiting the amount of time that caribou interact with the project area. Any potential effects, although likely, are predicted to be short to medium-term and limited to the construction or seasonal use periods. Agnico Eagle predicts effects would be non-significant and not adversely influence the abundance and distribution of caribou populations or decrease animal resiliency.

As construction of the waterlines could potentially disturb the nests of upland birds and raptors, Agnico Eagle plans to install the waterlines outside of the migratory bird season and therefore avoid disturbance or destruction of nests. Nest surveys would be completed prior to any installation during the migratory bird breeding season, and if necessary nest monitoring and/or management plans would be developed for each identified nest site. Ongoing monitoring of identified raptor nesting areas near the AWAR would continue; however, Agnico Eagle noted there is no line of sight between the monitored nests and the AWAR, and so disturbance from waterline installation would be unlikely. Agnico Eagle determined that any changes to the nest success of birds from the proposed project can be prevented and therefore the persistence of bird populations would not be significantly impacted.

3.2.2 Marine Sediment and Water Quality

Agnico Eagle has identified that the accidental release of saline effluent from the subsea pipeline to the marine environment could have direct adverse effects on marine water quality and associated indirect effects on marine wildlife. Accidental release of saline effluent along the subsea pipeline prior to reaching the diffuser into Melvin Bay could result in negative changes to habitat quality and indirectly affect marine fish, benthic invertebrates, marine birds, and marine mammals. Agnico Eagle plans to prevent potential effects through implementation of the mitigation measures within its Spill Contingency Plan, and to address any potential spill events via the existing Risk Management and Emergency Response Plan. Operations would adhere to established procedures and best practices, as well as applicable regulations including the *Arctic Waters Pollution Prevention Act*.¹⁷ Potential effects of a worst-case scenario (complete break in subsea pipeline) on the health and mortality of marine wildlife are considered reversible through natural recruitment, and therefore changes at the population level are not anticipated. Good flushing¹⁸ and mixing conditions in Melvin Bay are expected to dissipate any spilled effluent during open water periods, thus reducing potential local impacts to wildlife. Any potential effects of a spill to the marine environment are expected to be unlikely to occur, low in magnitude, short-term in duration, and

¹⁷ R.S.C. 1985, c. A-12.

¹⁸ Clearance of the saline effluent from Melvin Bay by tidal movement (ebb and flood tides).

small in scale. Potential impacts to the marine environment are expected to be negligible, consistent with the conclusions of the 2018 IS Addendum.

3.2.3 Proposed Mitigation and Monitoring Measures (Ecosystemic Environment)

Agnico Eagle has identified the following management and monitoring plans, which encompass the mitigation measures summarized in [Table 6](#) above and would apply directly to the Waterlines Proposal. Where appropriate, the following plans have been amended to incorporate the Waterlines Proposal and associated activities:

- Groundwater Management Plan;
- Spill Contingency Plan;
- Roads Management Plan;
- Erosion and Sediment Control Plan; and
- Ocean Discharge Monitoring Plan.

The Proponent has also identified several plans that may require updating should the Waterlines Proposal be approved to proceed:

- Greenhouse Gas Reduction Plan;
- Terrestrial Environment Management and Monitoring Plan (TEMMP); and
- Interim Closure and Reclamation Plan.

Agnico Eagle has also committed to adhering to all existing plans that were developed for the Meliadine Gold Mine Project under Project Certificate No. 006, Amendment 1.

3.3 Summary of Potential Changes to Socio-Economic Effects

Agnico Eagle assessed the impacts of the components and activities associated with the Waterlines Proposal on the Valued Socio-Economic Components (VSECs) identified through pathway analysis. The Proponent concluded that overall, there would be negligible impacts to the socio-economic environment because of the proposed activities.

[Table 7](#) below provides the summary of impact predictions and significance determinations as presented by Agnico Eagle in the IS Addendum for the applicable socio-economic VSECs identified for the assessment, and the predicted changes by Agnico Eagle are rated based on what was previously assessed by the Board within the scope of the 2018 IS Addendum.¹⁹ The Proponent's IS Addendum for the Waterlines Proposal did not highlight any specific management or monitoring plans with respect to the socio-economic environment. For the purposes of the Board's assessment, the applicable mitigation and monitoring measures listed within the Proponents effects assessment are summarized in the table.

¹⁹ *Final Environmental Impact Statement Addendum – Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet*; Public Registry ID: 331124.

Table 7: Summary of Agnico Eagle’s Predicted Socio-Economic Changes in Project Interactions and Factors Relating to Significance

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Heritage Resources</p> <p><i>No change and/or negligible minor impacts</i></p>	<ul style="list-style-type: none"> ▪ Potential direct effects to heritage resources were predicted from construction activity of the waterlines and installation of the discharge pipe leading to ground alteration. 	<ul style="list-style-type: none"> ▪ Awareness training for staff and contractors, avoidance of previously recorded sites. ▪ Use minimal sized footprint and complete additional assessment for any changes to the Project footprint with potential to contain heritage resources. ▪ Monitor condition of known heritage resource sites. ▪ Application of mitigation as presented in the 2014 FEIS and adherence to the Project Certificate No 006 Amendment 1.
<p>Employment and Procurement</p> <p><i>No change and/or negligible minor impacts</i></p>	<ul style="list-style-type: none"> ▪ Construction and/or installation of the proposed project components could generate modest employment using local contractors. ▪ Operational workforce will be reduced, as truck drivers no longer required. 	<ul style="list-style-type: none"> ▪ Monitor impacts using local labour force; consult with communities on potential impacts and communicate monitoring results back to communities. ▪ Adherence to Human Resources Plan and Inuit Impact and Benefit Agreement. ▪ Identify local contractor with capacity to meet labour force demand.
<p>Population; Housing; Infrastructure and Services</p> <p><i>No change</i></p>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities. ▪ than what was assessed in the 2014 FEIS and 2018 IS Addendum. lease area of the AWAR and bypass road. 	

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Non-Traditional Land Use</p> <p><i>No change and/or negligible minor impacts</i></p>	<p>Potential direct and indirect effects to non-traditional land use were predicted from:</p> <ul style="list-style-type: none"> ▪ Construction and operations could impact recreational use in the immediate vicinity. 	<ul style="list-style-type: none"> ▪ Engagement with land users to identify specific recreational land use areas regarding safety of species and provide information in an accessible format to ensure that the efficacy of mitigation measures is understood. ▪ Discharge only during summer months. ▪ No under-ice discharge to Melvin Bay. ▪ Flagging and/or markings would be used as a visual aid to indicate the location of the waterline for travel. ▪ Use Traditional Knowledge and/or Inuit Qaujimajatuqangit to identify areas for crossing structures. Elder representatives from the HTOs will be invited to site to inspect the AWAR and identify locations where caribou crossing should be installed. ▪ In the area of Apache Pass the waterlines would be routed on the East side of the rock outcrop. ▪ Markers would be placed on the waterline for winter identification.

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p><i>Inuit Qaujimagajatuqangit and Traditional Land and Resources Use</i></p> <p><i>No change and/or negligible minor impacts</i></p>	<p>No change to impact predictions from the following previously assessed activities:</p> <ul style="list-style-type: none"> ▪ Changes to marine wildlife and fish behaviour and health could adversely impact traditional harvesting. ▪ Proposed activities could result in perception that resources are no longer safe for traditional use. ▪ Diffuser could impact traditional land use during summer months. <p>Activities not previously assessed which could have minor impacts include:</p> <ul style="list-style-type: none"> ▪ Location of the waterlines could impact traditional land use along the AWAR. ▪ Potential impacts to terrestrial wildlife behaviour and health could adversely impact traditional harvesting. 	<ul style="list-style-type: none"> ▪ Adherence and implementation of Erosion and Sediment Control Plan, Risk Management and Emergency Response Plan, Oil Pollution Emergency Plan, DFO recommendations and regulations for fish and fish habitat, TEMMP, and Ocean Discharge Monitoring Plan. ▪ Applicable management or monitoring plans for the various terrestrial and marine species, as required, and reported on as part of the annual reporting requirements for the Meliadine Mine. This would include the TEMMP and the Ocean Discharge Monitoring Plan, amongst other applicable plans and programs and application of mitigation as presented in the 2014 FEIS and adherence to the Project Certificate No. 006, Amendment 1. ▪ Incorporate consultation feedback into project design and operation of diffuser and discharge activities. ▪ Engagement with land users to identify specific recreational land use areas. ▪ Early warning signs, flagging, and markers to indicate location of waterlines. ▪ Route waterlines by incorporating Traditional Knowledge and community feedback (i.e., Apache Pass).
<p>Individual and Community Wellness</p> <p><i>No change</i></p>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS. 	
<p>Governance and Leadership</p> <p><i>No change</i></p>	<ul style="list-style-type: none"> ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS. 	

Valued Component and Change	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
Human Health <i>No change</i>	<ul style="list-style-type: none"> ▪ No link between the Project and human health. ▪ No effects are expected with the small-scale proposed Project activities than what was assessed in the 2014 FEIS. 	

Agnico Eagle's assessment of the potential effects of the Waterlines Proposal on the socio-economic environment concluded that the majority of effect predictions are consistent with those of the 2018 IS Addendum.

Heritage resources may be affected by ground alteration from the installation of the waterlines, use of eskers, and temporary laydown areas; however, the route was surveyed as part of the local study area during the original assessment (2014) and have already or are planned be mitigated using standard archaeological methods and plans already in place. Agnico Eagle does not consider any impacts to archaeological sites or heritage resources beyond what has been previously assessed and documented.

Agnico Eagle identified that the waterlines located adjacent to the AWAR have the potential to impact traditional land and resource use, which was confirmed during public consultations. The public commented about the ability of land users to cross the waterlines and Agnico Eagle committed to cover between 80 to 90% of the length of the waterlines with esker material to allow for safe crossing of the waterlines and AWAR structure. Agnico Eagle also committed to adding early warning signs, flagging, and markings to indicate the presence of the waterlines. The Proponent also heard during these consultations concerns raised by community members about potential effects to berry picking along the AWAR and in the vicinity of the waterlines. It is anticipated by Agnico Eagle that the overall effect from the Waterlines Proposal on the use of vegetation resources is expected to be minor, short-term, and consistent with predictions from the original 2014 FEIS and the 2018 IS Addendum conclusions.

Traditional harvesting and the availability of, or access to, wildlife could be adversely impacted by the proposed project activities due to potential effects to terrestrial wildlife and bird behaviour. Agnico Eagle anticipated that adherence to applicable management and monitoring plans during the construction of the waterlines would minimize potential impacts. During Agnico Eagle's public consultations it was identified that caribou specifically may be delayed initially crossing the waterlines and could spend additional time along the AWAR, which could make caribou more susceptible to hunting pressures. Agnico Eagle anticipated that opportunities to harvest caribou would continue and there would be only minor to negligible effects on traditional harvesting activities.

In terms of employment opportunities, while the construction workforce may be slightly higher than predicted in the 2018 IS Addendum due to waterline construction and diffuser installation, the operation workforce requirements would likely be reduced in the long-term as truck drivers would no longer be required to truck treated groundwater to the discharge point.

3.4 Other Issues Considered by the Board

The Proponent's assessment considered cumulative effects as a potential pathway for effects to both ecosystemic and socio-economic valued components. The Proponent concluded that the Waterlines Proposal does not change the cumulative effects previously assessed within the original 2014 FEIS, as the changes are similar to previously assessed activities and within the same local and regional study areas.

Although Agnico Eagle did not initially include an alternative analysis, or an assessment of effects to human health, the Proponent submitted additional materials on October 13, 2020 after the Proponent conducted a detailed assessment of alternatives, as well as undertaking a Human Health Risk Assessment (HHRA) in response to various Intervenors' requests through the NIRB's assessment process.

Agnico Eagle's alternatives assessment investigated a potential higher discharge rate of up to 20,000 m³/day which could include diverting 8,000 m³/day of surface contact water to the waterlines to discharge it into Melvin Bay rather than into Meliadine Lake. The Proponent completed the assessment of impacts associated with this alternative of additional discharge volumes in relation to the discharge of treated surface contact water in accordance with the methods outlined in the IS Addendum.

The Proponent assessed the potential effects of the Waterlines Proposal on human health, specifically any linkages between human health and contaminants of potential concern (dust and saline effluent). The conclusions of the HHRA were that the Waterlines Proposal was of negligible risk to human health due to incomplete linkages.

Agnico Eagle did not include or identify any transboundary effects of the proposed project; however, in Section [5.3.1](#) the NIRB has considered the potential for transboundary effects in its assessment of the Waterlines Proposal, due to the potential interaction of the proposed activities with the Qamanirjuaq caribou herd, as the herd range extends from Nunavut into northern Manitoba, Saskatchewan, and southeastern Northwest Territories.

[Table 8](#) below provides the summary of impact predictions, changes and significance determinations as presented by Agnico Eagle in the IS Addendum related to other issues considered.

Table 8: Summary of Agnico Eagle’s Conclusions in Respect of Other Issues Considered by the Board

Other Issues and Changes	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
<p>Alternatives Analysis <i>Change; not significant</i></p>	<p>Original Amendment proposal was for 6,000 to 12,000 m³/day; but Agnico Eagle investigated higher discharge rates of 20,000 m³/day that included the diversion of surface contact water including containment pond 1 (CP1) into the waterline to assist with managing water at site.</p>	<ul style="list-style-type: none"> ▪ Only assessing an increase volume of water and water quality parameters than what was assessed in the August 2020 IS Addendum, many predicted effects would remain unchanged. ▪ Assessment focused on increase of volume and mitigations described in the August 2020 IS Addendum would continue to be applied as appropriate. The diffuser was designed to aid in mixing at a maximum discharge of 20,000 m³/day. As well, operational activities would be engineered to use handling systems to minimize the risk of accidental spills into the marine environment. ▪ Adherence to the Ocean Discharge Monitoring Plan, current Project Certificate conditions, the Groundwater Management Plan, and federal regulations ▪ Water to be discharged to Melvin Bay through the diffuser would be treated so that it meets regulatory requirements for both temperature and applicable water quality guidelines at the end-of pipe and in the summer months only. ▪ Implementation of a Risk Management and Emergency Response Plan specific to the potential release of treated effluent ▪ Toxicity testing would continue to be completed on the treated effluent to confirm it is acceptable for release (i.e., is not -acutely toxic).

Other Issues and Changes	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
		<ul style="list-style-type: none"> ▪ If the treated effluent is not suitable for discharge, it will be stored at the Meliadine Mine and treated prior to discharge. ▪ A Monitoring program would be established, and adaptive management implemented if negative impacts are detected.
Accidents and Malfunctions	Accidental release of saline effluent from unknown location along the discharge pipe could impact the marine environment and associated VECs.	<ul style="list-style-type: none"> ▪ Adherence and implementation of Ocean Discharge Monitoring Plan, Risk Management and Emergency Response Plan, Erosion and Sediment Control Plan, Spill Contingency Plan, and establishment of other applicable monitoring programs and adaptive management. ▪ Adherence to regulatory requirements for temperature and water quality (e.g., treatment prior to discharge, toxicity testing). ▪ Diffuser design to promote mixing and effective dispersion in Melvin Bay of discharge up to 20,000 m³/day.
Cumulative Effects <i>No change and/or negligible minor impacts</i>	Agnico Eagle identified no instances where the potential for cumulative effects changed because of the Waterlines Proposal.	
Human Health Risk Assessment <i>No change; negligible impacts</i> <i>Section 8.1.2</i>	Potential pathways for human exposure and risk to health include: <ul style="list-style-type: none"> ▪ Inhalation of dust generated by construction activities; and 	Design features and mitigation measures incorporated from the approved Meliadine Gold Mine Project to remove pathways and limit any potential effects to human health.

Other Issues and Changes	Discussion of Interactions	Summary of Applicable Mitigation and Monitoring
	<ul style="list-style-type: none"> ▪ Consumption of country foods contaminated by saline effluent discharge to the marine environment. <p>Pathways considered incomplete, no further assessment.</p>	

Agnico Eagle assessed the potential alternative to discharge surface contact water in addition to the saline effluent through the waterlines at a maximum rate of 20,000 m³/day. The Proponent’s assessment identified that the accidental release of saline effluent from an unknown location along the discharge pipeline could negatively impact marine water quality and have associated indirect effects on marine wildlife. The proposed alternative of discharging saline effluent and surface contact water at a maximum total daily rate of 20,000 m³/day is anticipated to have residual impacts on the marine VECs of low magnitude, local geographic extent, be of short to medium-term in duration, and unlikely to occur. The Proponent therefore concluded that any impacts associated with the proposed alternative discharge scenario would not significantly influence the abundance or distribution of marine wildlife.

4 Summary of Intervenor Submissions

On or before April 12, 2021, the NIRB received final written submissions on Agnico Eagle’s IS Addendum for the Waterlines Proposal from the parties as listed in [Table 9](#).

Table 9: Final Written Submissions and NIRB Document ID No.

Intervenor	NIRB Public Registry ID No.
Nunavut Tunngavik Incorporated (NTI)	334522 and 334526
Kivalliq Inuit Association (KIA)	334581
Government of Nunavut (GN)	334642
Government of Canada represented by the following departments coordinated through the Northern Projects Management Office: <ul style="list-style-type: none"> • Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) • Environment and Climate Change Canada (ECCC) • Fisheries and Oceans Canada (DFO) • Health Canada (HC) • Transport Canada (TC) 	334580 and 335061
Kivalliq Wildlife Board (KWB)	334582
Kangiqliniq Hunters and Trappers Organization (Kangiqliniq HTO)	334523
Sayisi Dene First Nation and Northland Denesuline First Nation (SDFN and NDFN)	334583

4.1 Summary of Submissions in Respect of Ecosystemic Effects

[Table 10](#) below provides a brief summary of the final written submissions from Intervenor and parties on Agnico Eagle’s IS Addendum in respect of ecosystemic effects; the complete final written submissions can be accessed through NIRB’s Public Registry at www.nirb.ca/project/125515.

Table 10: Summary of Comments Received from Parties for Ecosystemic Effects

Party	Areas of Concern
NTI	<ul style="list-style-type: none"> ▪ Outstanding Inuit issues regarding the level of potential impacts to the terrestrial, freshwater and marine environments, and harvesting activities. <p>Terrestrial Advisory Group (TAG):</p> <ul style="list-style-type: none"> ▪ KWB and Baker Lake HTO be included as contributing members of the TAG and parties be provided an opportunity to comment on the Terms of Reference; ▪ Recommendations and views of the TAG and involved parties should be forwarded to NIRB; and ▪ Establishment and functions of the TAG should be formally set out through the Project Certificate terms and conditions with direction to incorporate Inuit Qaujimagatuqangit.
KIA	<ul style="list-style-type: none"> ▪ Concerns regarding the monitoring of impacts to caribou and recommendation that this information was captured and adaptive mitigation is considered in revisions to the TEMMP; and ▪ The proposed waterlines amendment is not contemplated or authorized in Road Lease KVRW11F02. <p>Collared Caribou Meliadine AWAR Interactions Technical Memorandum (Collared Caribou Memo):²⁰</p> <ul style="list-style-type: none"> ▪ Complete a more comprehensive analysis of caribou interactions with the AWAR at an appropriate spatial and temporal scale with incorporation of any additional variables such as traffic levels and insect harassment; and ▪ Consult with parties about how to define caribou deflection using both Inuit Qaujimagatuqangit and technical criteria. <p>TAG:</p> <ul style="list-style-type: none"> ▪ A new TEMMP should be developed with the TAG; and ▪ The final Terms of Reference and Memorandum of Understanding be distributed for the TAG.

²⁰ Agnico Eagle Mines Limited (2021). *Collared Caribou Meliadine AWAR Interactions Technical Memorandum*, Public Registry ID: 332423.

Party	Areas of Concern
	<p>Resolved technical review comments:</p> <ul style="list-style-type: none"> ▪ Questions on whether water quality in Melvin Bay returns to pre-discharge conditions considered resolved with commitment to conduct post-discharge water quality monitoring for the first three (3) years of waterline operation; and ▪ Concern regarding slope design resolved with further information on proposed side slopes and commitment to provide side slope as-built drawings within six (6) months of completion of construction of the waterlines.
GN	<p>Concerns regarding analysis of caribou collar data and the terms that are used in the Collared Caribou Memo with the recommendation to revise the following within six (6) months of the Public Hearing:</p> <ul style="list-style-type: none"> ▪ A larger local study area; and ▪ A definition of “deflection” that takes into account the observed behaviour of caribou paralleling the road or adjusting their course away from the road at any angle of movement.
CIRNAC	<p>Resolved technical review comments:</p> <ul style="list-style-type: none"> ▪ Satisfied with Agnico Eagle’s clarification on how saline effluent will be confirmed to be compliant for release prior to being discharged; and ▪ Remaining questions resolved on what water management strategy changes would occur at the Meliadine Site if the proposed amendment to project activities was approved. <p>Resolved technical review comments with commitments:</p> <ul style="list-style-type: none"> ▪ Update the Groundwater Management Plan to clarify discrepancies between the 2014 FEIS groundwater inflow predictions and the 2020 IS Addendum as well as including details regarding mixing and treatments of various contact water sources, and information regarding conformity checks; ▪ Update the Water Management Plan to include management for increased volume of sludge²¹; ▪ Integrate the operation and maintenance component of the waterline system (e.g., fibre optics monitoring along waterline length and seasonal protocol) into an existing management plan which would be submitted 60 days prior to the commissioning of the waterline system; and ▪ Incorporate the details about the potential effects of the burial of waterlines on reclamation and closure strategy, into the next iteration

²¹ Sludge was defined by Agnico Eagle at the Public Hearing as a by-product from the removal of suspended solids and treatment of the saline effluent.

Party	Areas of Concern
	of the Interim Closure and Reclamation Plan.
ECCC	<p>The following technical review comments were resolved going into the Public Hearing:</p> <ul style="list-style-type: none"> ▪ Recommended adding invertebrate sampling to the Ocean Discharge Monitoring Plan to minimize uncertainty of impacts to marine birds; and ▪ Requested Agnico Eagle specify the volumes of freshwater planned to be discharged into the marine environment to assess whether there will be an effect from total water removal from the watershed.
DFO	<p>Requested Agnico Eagle continue to work with DFO through its process should the proposal be approved.</p> <p>Resolved technical review comments:</p> <ul style="list-style-type: none"> ▪ Waterline installation along the AWAR – ensure fish-friendly at water crossings; and ▪ Requested Agnico Eagle submit a Request for Review to DFO for the waterlines and subsea pipeline and diffuser installation into Melvin Bay. The application was submitted and is currently being reviewed.
TC	<p>Requested Agnico Eagle continue to work with TC through its process should the Waterlines Proposal be approved. The diffuser and subsea pipeline require approval under the <i>Canadian Navigable Waters Act (CNWA)</i>.</p> <p>Resolved technical review comments:</p> <ul style="list-style-type: none"> ▪ Agnico Eagle is required to follow the rules in the <i>CNWA</i> for any navigable water crossed by the twin lines as well as the <i>CNWA</i> Minor Works Order for the waterlines crossing of the Meliadine River.
KWB	<p>Impacts of the proposed waterlines and AWAR on caribou migrations:</p> <ul style="list-style-type: none"> ▪ Noted that impacts of the AWAR on the Qamanirjuaq caribou herd have been felt by communities throughout their range; ▪ Supports integration of Inuit Qaujimajatuqangit and science into the TAG; ▪ Noted that the HTOs and the KWB do not currently have the capacity to participate in the TAG; and ▪ Recommended that all TAG correspondence should be made available for the public on the NIRB Public Registry.
Kangiqliniq HTO	<p>Mitigation of impacts and ensure monitoring of impacts to caribou:</p> <ul style="list-style-type: none"> ▪ Suggested making caribou monitoring data from cameras, collars, and other sources public available for all interested parties; and ▪ Construction of the waterline covering with side slopes between 1:6

Party	Areas of Concern
	<p>to 1:3 to allow caribou herds to cross without difficulty.</p> <p>Saline effluent quality:</p> <ul style="list-style-type: none"> ▪ Discharge be stopped if saline effluent is out of compliance; and ▪ Regular monitoring of saline effluent discharge into the sea.
SDFN and NDFN	<p>Qamanirjuaq caribou herd:</p> <ul style="list-style-type: none"> ▪ Concerned with negative effects on Qamanirjuaq caribou herd as reduction of the herd may limit the ability of SDFN and NDFN members to maintain their culture, their way of life, and their Aboriginal and Treaty rights to harvest caribou; ▪ A high amount of importance was attached to the establishment of a TAG; ▪ Recommended adjusting a Term and Condition to include establishments of a TAG to advise Agnico Eagle on terrestrial environmental effects monitoring, mitigation measures, adaptive management, implementation of the TEMMP and the Project Certificate Terms and Conditions related to the interaction between the Meliadine Gold Mine Project and the terrestrial environment, and ways to incorporate western science and Indigenous Knowledge; ▪ Recommended that the TAG prioritize regional and cumulative effects and will incorporate this information into adaptive management; and ▪ Comments regarding the potential impact of spills to caribou found in Table 14. <p>Collared Caribou Memo</p> <ul style="list-style-type: none"> ▪ Do not agree with the criteria used to define “deflection” of caribou from the AWAR; ▪ Noted that the zone of influence for a road on caribou movements may extend beyond the 1.5 km local study area used in the analysis; ▪ Expected that 2020 monitoring data and data from Agnico Eagle’s experience with the Meadowbank Gold Mine Project AWAR would be included in the analysis; and ▪ Suggested that caribou interactions with the AWAR/waterline structure be addressed in the TEMMP with oversight provided by the TAG.

4.2 Summary of Intervenors' and Communities' Comments in Respect of Ecosystemic Effects

Throughout the NIRB's assessment of the Waterlines Proposal the NIRB has recorded comments, concerns, and questions from both the Intervenors, Community Representatives, and interested members of the public. Below is a summary of Valued Ecosystemic Components addressed throughout the assessment, and final comments and concerns identified by Intervenors and Community Representatives of the potentially-affected Kivalliq communities at the Public Hearing associated with the Waterlines Proposal.

4.2.1 Air Quality

During the Community Roundtable session at the Public Hearing, Community Representatives and members of the public commented on the importance of air quality and expressed concerns about dust and project-related emissions. In its presentation, Health Canada noted that there were no concerns identified related to air quality in its review of the Waterlines Proposal. However, Community Representatives highlighted that there is currently an impact felt from the amount of dust due to trucking: "...also seeing many trucks coming in and out, there's way too much dust, and we often see that. There's so much dust."²² As stated in Agnico Eagle's IS Addendum and further reiterated in the Proponent's presentation, the change in saline effluent conveyance from trucking to waterlines would reduce dust emissions by reducing the number of trucks on the AWAR and bypass road. Community Representatives agreed this would be beneficial: "If we understand that the traffic will be less if the pipeline is put on, and as the people of Rankin Inlet want less dust, the pipeline cut it off. There will be less dust."²³

Concerns were also heard about the impacts to air quality from greenhouse gas emissions:

Here's my concern: When the mine started, the greenhouse gas emissions that are coming from the mine are coming in to our land, and we're breathing it in. It almost always goes to our community as well. It might be 4 to 5 miles of the surrounding area is black from the mine from the gases or smokes that are occurring over there.²⁴

Further discussion on the greenhouse gas emissions associated with the Waterlines Proposal is found below in the discussion of climate change in Section [4.2.2](#) that follows.

²² P. Putumiraqtuq, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p. 692, lines 9-11.

²³ P. Alareak, Hamlet of Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 588, lines 9-12.

²⁴ J. Nakoolak, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 612, lines 7-13.

4.2.2 Climate Change

During the Community Roundtable session of the Public Hearing, a youth representative from Arviat emphasized the importance of climate change, noting how effects on this ecosystemic component are widespread, with the possibility of adverse effects occurring on other valued ecosystemic and socio-economic components, including the marine environment, wildlife, and food security:

Regarding climate change, the sea ice -- the sea ice is a good example. (NO ENGLISH FEED) the sea ice, which feeds off the fish, and then -- which feeds off seals and the whales, the other whales, and then the polar bears, and then us that is a part -- that is a part of food chain. With the food chain, I mention the food chain because with people who don't have the proper hunting equipment or that -- or people for -- for people who don't have the proper transportation, it could, like, have an effect on their lifestyle, and I wanted to mention that because of this chain reaction with this whole ecosystem.

For people who don't have the proper hunting equipment, that could be hard for them to deal with food insecurity, and people who are dealing with food insecurity, it makes me think about people who have to take their medications with food, but they're dealing with food insecurity.

So with the whole chain reaction with the ecosystem, our ecosystem, I wanted to know what you guys -- sorry. I'm a little bit nervous. But I wanted to know what you guys were going to do when it comes to climate change even though you guys mentioned that you guys were going to have a meeting on a regular basis with the Elders.²⁵

The Aqigiq HTO added that the effects of global warming have been felt in Chesterfield Inlet. Ice formation is delayed and break-up is earlier, impacting the length of time it is safe to travel on the ice by skidoo. Marine wildlife is also impacted as seals skins are thinner and harvesters have identified an increasing number of marine mammals and fish being found, including seals, walrus and Arctic char, that are diseased.

In response, Agnico Eagle reiterated that a predicted positive impact associated with the Waterlines Proposal is expected to have a reduction to greenhouse gasses:

The -- to move from trucking to a pump and pipe solution will reduce our emission in greenhouse gas. Also, the previous approach we

²⁵ S. Nipisar, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 540-541, lines 12-26 and lines 1-11.

were looking at with the saline water was to treatment of the saline water and discharge in Meliadine Lake. So back in the days, that was the first thing we -- we were doing with that water, and that type of treatment required that we boil water, so you needed a lot of energy to boil the water, and this is triggering emission in greenhouse gas.

So when we look at the waterline project, for us, it's a sustainable project in that way because this is the avenue to reduce our greenhouse gas and limit our impact on climate change as a company.²⁶

4.2.3 Noise and Vibration

During the Proponent's presentation, Agnico Eagle noted that there would be a reduction in noise, due to the reduction of trucking along the AWAR if the waterlines replace transport of the saline effluent by trucks. Additionally, in response to a Community Representative expressing concern regarding the impacts on wildlife from construction noise and vibration, Agnico Eagle noted that it is not planning to do any construction during the caribou migration season. Agnico Eagle also noted that the marine environment construction activity to install the pipeline at Itivia Harbour to the diffuser would use horizontal directional drilling, which is not expected to produce more noise and/or dust than is already occurring from the other nearby activities.

Concerns were also heard during the Public Hearing about the noise that could be produced by the diffuser in Melvin Bay and the impacts to fish and marine mammals. Agnico Eagle responded that there would be no noise from the discharge of the treated saline effluent into the marine environment. Agnico Eagle also noted that there have been no changes observed in relation to the marine wildlife throughout the three (3) year period that the current diffuser has been in place. Agnico Eagle followed up by stating that although there was not expected to be a difference in noise produced by the diffuser, even with the increased volume discharged, continued monitoring would occur to validate this prediction.

4.2.4 Freshwater Quality and Fish and Fish Habitat

During its presentation, DFO acknowledged that its technical comments related to the installation of the waterlines were resolved as Agnico Eagle confirmed it would be attaching the waterlines to bridges inside containment pipes at crossings, and no instillation of the waterlines in the water courses below the bridges would occur and therefore there would be no obstruction to fish passage. Agnico Eagle also stated that this would mean that construction equipment would not be used within the high-water mark. However, within the KWB and HTOs' joint presentation it was noted that there remained concerns about the risk of spills into the freshwater environment, as further

²⁶ M. Groleau, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 542, lines 6-19.

detailed in Section [4.6.3](#), where the potential for effects associated with accidents and malfunctions is discussed.

Additionally, during its presentation Agnico Eagle noted that a potential benefit of the proposed amendment could be the reduction of surface contact water discharge into Meliadine Lake through discharge of this water into Melvin Bay by the waterlines, as described in its alternative analysis (see the discussion of this alternative in Section [4.6.2](#)). During the Public Hearing, Intervenors, Community Representatives, and members of the public questioned Agnico Eagle about the impacts to fish and birds from discharges into Meliadine Lake. Intervenors, including the Government of Canada in its closing remarks, KIA, and KWB, also supported minimizing surface contact water discharge into Meliadine Lake by using the waterlines to dispose of treated surface contact water into the marine environment.

4.2.5 Soil Quality and Terrain (including Permafrost)

Permafrost was discussed during the Community Roundtable hosted in conjunction with the Pre-Hearing Conference, with questions being asked about how permafrost conditions were taken into account with the installation of the waterlines along the AWAR and if there would be any impacts on the ground conditions resulting from the groundwater being removed. In response to Information Requests Agnico Eagle stated that it would use appropriate engineering design and construction practices to minimize impacts to soil quality, permafrost, and ground disturbance while installing and operating the waterlines as well as excavating quarries and eskers. Agnico Eagle also indicated that by installing the waterlines along the AWAR and bypass road the footprint of the Waterlines Proposal would be minimal, which would reduce impacts. However, spills of saline effluent may impact the soils and permafrost if not detected early and/or if appropriate response actions are not taken. For more information on spills, please refer to Section [4.6.3](#) Accidents and Malfunctions.

As for the groundwater withdrawal having impacts on the permafrost, Agnico Eagle indicated that impacts are unlikely to occur as the Proponent is mining below the permafrost layer where the saline groundwater is trapped in cracks and fissures. As these cracks or fissures are opened, the saline groundwater is released and become inflows into the underground mine, which is why Agnico Eagle needs to collect and remove the saline groundwater/effluent as was proposed in the approved 2018 “Saline Effluent Discharge to Marine Environment” Project Proposal and the current Waterlines Proposal.

At the initial stages of the assessment, members of the public requested that the waterlines be covered in materials of appropriate sizes to allow caribou to cross more easily. In response, Agnico Eagle proposed to use pit-run sand and gravel from approved eskers and borrow sites along the AWAR. To mitigate any impacts to soils and terrain (including permafrost), Agnico Eagle has stated it would be using its existing plans while extracting materials from those sites.

4.2.6 Vegetation

During its presentation, Agnico Eagle indicated that their assessment predicts there would only be localized effects to soil and vegetation where the waterlines are placed on the tundra, and that spills to the terrestrial environment are expected to have low to negligible impacts. More details on the predicted impacts from spills can be found in Section [4.6.3 Accidents and Malfunctions](#). Concerns were expressed about the size of the footprint of the covered waterlines which could disturb vegetation. During its closing remarks the Baker Lake HTO noted how the plant communities are changing and the importance of continued vegetation monitoring.

I used to be a dog musher, and I used to see the plants on the land, but I'm seeing them on the roads now, like the ones that aren't normally on the road. These things are heavy subjects or topics, and these that grow, there's plants that are growing that we've never seen before, so hunters and trappers may want to monitor those more carefully. Those plants touch our wildlife as well. ²⁷

Community Representatives also inquired more specifically about the impact to vegetation during installation, and Agnico Eagle reiterated that the vegetation would only be impacted where it would be covered by esker material in the covered sections of the waterline.

4.2.7 Terrestrial Wildlife

A topic of high significance and concern for members of the public throughout the community information sessions, and Community Representatives at the Pre-Hearing Conference and Community Roundtable and the Public Hearing was the impacts of the proposed activities to caribou (see for example [Table 5: Summary of Key Issues Raised by Members of the Public and Community Representatives](#)). During the Public Hearing, Baker Lake Community Representative Elder stressed that caribou use many senses including smell, feeling of vibrations through their hooves and sight to understand their surroundings and their trail. Through these senses, the caribou would be able to detect new features, including covered waterlines which may ultimately interfere with their willingness to cross the waterlines and the AWAR during their migration:

The first time if they see something new, it's like, I'm sorry. Like, we lost our trail. They let -- Inuit value those. Like, if we have a vehicle and if somebody broke, we would not be happy. We would feel -- it's just the same. Caribou too. They need animal that has a trail. Because they lost their trail, they have to find a different trail now. And other animals too. Like, well, few -- like, they -- they can -- they feel it too.

²⁷ P. Putumiraqtuq, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp. 691-692 at lines 25-26 and 1-6.

*Like, we -- during our meeting, we know, and we -- the animals too have different feelings. We -- you need to know that too. Maybe through that, if they're going to go through the -- where the pipes are being put, like, there are -- like, if we're not going to see them and the other one is -- when you were talking about this, like, if the road is going to be built and they're going to cover the pipes and these will be used by caribou, we know that caribou will go on top -- on top of that, but they will recognize, and they will see there's a difference between their trail.*²⁸

Caribou monitoring was also of high importance to the GN, KIA, KWB, SDFN, and NDFN and all submitted comments for further information from Agnico Eagle about the methods used to assess potential effects. Information was also requested on how existing caribou monitoring data had informed the Waterline Proposal of the potential for impacts as the proposed waterlines route is alongside the current AWAR. The GN specifically requested Agnico Eagle review and report the methods and analyses used for caribou monitoring studies, provide data on the AWAR to understand impacts to caribou, and create a decision tree for caribou monitoring and mitigation measures triggered by number and proximity of caribou. KIA requested that Agnico Eagle clarify which triggers would result in changes to Agnico Eagle's mitigation, and what enhanced mitigation might involve. In addition, the KWB, SDFN, and NDFN highlighted the importance of impact assessment and monitoring of regional and cumulative effects.

The KWB's presentation on behalf of the Arviat, Issatik, Aqigiq, Baker Lake, and Kangiqliniq HTOs stated that there were outstanding concerns regarding caribou even though the Proponent had committed to addressing many of the aforementioned caribou concerns through the TAG, and highlighted that communities have noticed changes since the construction of the AWAR:

There are concerns that regional impacts on caribou are not being properly monitored and that more work needs to be -- more work needs to be done to understand how this project is and will impact the Qamanirjuaq caribou herd, and this is specifically beyond the immediate area around the mine and the all-weather access road along with the pipeline that is being proposed.

Large groups of the Qamanirjuaq herd migrate through the Meliadine River valleys and surrounding areas in the post-calving season when calves are still susceptible to cow-calf separation due to sensory disturbances. Communities have noticed changes since the all-weather access road was built. Hunters in Baker Lake rarely see the Qamanirjuaq caribou herd, and hunters in Chesterfield Inlet

²⁸ J. Joedee, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 534-535, lines 10-26 and 1-3.

have noticed additional changes to the migration as it happens through their hunting grounds. ²⁹

In its joint presentation, the SDFN and NDFN reiterated that not enough evidence was provided to support Agnico Eagle's conclusions that the proposed Waterline Proposal activities would result in no significant regional and cumulative impacts to caribou. These Intervenors also stated that there was a lack of clarity on how regional and cumulative impacts could be detected using the current monitoring programs.

Likewise, the KWB questioned the uncertainty in Agnico Eagle's conclusions that there would be no cumulative or transboundary effects particularly to caribou, associated with the Waterlines Proposal. Agnico Eagle responded by stating:

*The basis for that statement comes from the original FEIS where the assessment for caribou was based on a low magnitude of effect, a low frequency of duration, so basically a small-scale footprint with -- overlapping with the Qamanirjuaq caribou range, a low frequency of duration that ties back to what I said earlier around that 5 to 11 days of interaction with caribou, and, consequently, then a low consequence or a low effect to caribou.*³⁰

Throughout the Public Hearing, the NTI, KIA, GN, KWB, Kangiqliniq HTO, SDFN and NDFN, continued to express support for the establishment of a Terrestrial Advisory Group to improve existing monitoring of the potential for project-effects on caribou, and to address the uncertainty about these effects associated with the Waterlines Proposal. However, the KWB, Kangiqliniq HTO, SDFN and NDFN emphasized that, although they were supportive of the collaborative approach to adaptive mitigation and monitoring and formation of a TAG, they were concerned that the resolution of many concerns related to caribou monitoring and impact assessment were being deferred to being addressed within the TAG, which had not yet been established, funded, or demonstrated to be successful.

We acknowledge that Agnico Eagle has made efforts and commitments to address our concerns. However, we still have concerns for several reasons. Some of Agnico Eagle's commitments are to conduct additional work that has not yet been done. It has been proposed that several actions could be taken by the terrestrial advisory group, but that group has not been established yet.

²⁹C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 459, lines 8-25.

³⁰C. DeLaMare, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 172, lines 5-14.

*Based on the information Agnico Eagle has provided so far, we do not fully understand what actions the company is proposing to prevent effects on caribou. Some terms should be defined and additional information provided to make sure their plans and procedures are clear to everyone.*³¹

In its closing remarks the Kangiqliniq HTO expressed a similar sentiment:

*The hunters and trappers organization, although, remains concerned that concerns are being left to the terrestrial advisory group, which has not been created yet.*³²

Intervenors interested in participating in the TAG also highlighted the need for Inuit Qaujimajatuqangit to inform updates to monitoring programs described in the TEMMP through the TAG and noted that capacity issues may hinder fair and effective participation from parties as further described in Section [7.1](#) Supporting Community Capacity.

Intervenors had concern that the effects on caribou from the already-approved Meliadine Gold Mine Project were not well understood, specifically the assessment of caribou interaction with the current AWAR. In response to a request from SDFN during the technical review phase of the assessment, Agnico Eagle provided a Collared Caribou Memo describing the crossings and deflections of caribou in relation to the AWAR, as assessed using caribou collar data. In response, the GN, KIA, and SDFN and NDFN indicated that the conclusions reached by Agnico Eagle should be reconsidered with a new, more inclusive definition of caribou “deflection” from the AWAR being applied, a larger study area, and consideration of additional variables that may affect caribou movement and behaviour being accounted for. Within its joint presentation, the SDFN and NDFN also noted that there remained a lack of evidence that the combined waterlines and road structure would not interfere with movements of caribou.

Following the Proponent’s presentation, the KIA requested that Agnico Eagle commit to revising the Collared Caribou Memo in consultation with appropriate Intervenors:

The assessment done by Golder in January, I believe, of 2021 that looked at the movement of collared caribou through the area, on the -- in the -- in the minds of the Government of Nunavut, the Sayisi Northlands Dene, and the Kivalliq Inuit Association, assessment was deeply flawed, and the conclusions were, therefore, flawed as well.

³¹ G. Bussidor, Sayisi Dene First Nation (also presenting for Northlands Denesuline First Nation), NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 495-496, lines 21-26 and 1-8.

³² A Aukaut, Kangiqliniq Hunters and Trappers Organization, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 752-753, lines 25-26 and 1-2.

*Will Agnico Eagle commit to revising that assessment perhaps in consultation with the parties I mentioned?*³³

Intervenors also requested that this document be updated outside of the TAG to ensure the timing of the reassessment is not delayed. Furthermore, GN noted that Agnico Eagle committed in its response to final written submissions that the Collared Caribou Memo would be updated with the recommendations of the GN and the TAG within six (6) months of the end of the Public Hearing. During the presentation by the GN at the Public Hearing, the timing of this commitment was updated to six (6) months after the Minister's approval of the Waterlines Proposal, and this was the timeline provided in the updated commitment made by Agnico Eagle.³⁴

Concerns regarding impacts of spills to caribou are addressed in the Accidents and Malfunctions of this report Section [4.6.3](#).

4.2.8 Marine Sediment

Within its presentation at the Public Hearing, Agnico Eagle stated that impacts to the marine sediment would be limited to the shoreline during construction, additionally noting that as horizontal directional drilling would be used to install the subsea pipeline at Itivia Harbour to the diffuser, minimal impact to the marine bed in the intertidal zone is predicted during construction.

In response to the Baker Lake HTO's concerns about the impacts of the pipeline and diffuser on the erosion of the seabed, Agnico Eagle specified that another benefit to the horizontal directional drilling installation method would be that the subsea pipeline would be in the ground and therefore ice and ice movement would not create pressure on this infrastructure, reducing the impact to seabed erosion. Agnico Eagle also responded that concrete blocks would be utilized to hold the diffuser in place and keep the diffuser and water discharge pointing upward, which would also help to prevent erosion.

4.2.9 Marine Water Quality

In response to issues about water quality, treatment, monitoring, and impacts from the saline effluent being discharged into the marine environment raised by Community Representatives, members of the public, and Intervenors, Agnico Eagle provided information throughout the assessment to support the Proponent's predictions that the discharge of the significantly increased volumes of saline effluent via the waterlines would only lead to minor changes in Melvin Bay. As presented by Agnico Eagle at the Public Hearing, it is predicted that changes in water quality would be limited to within 100 m from the discharge location or mixing zone; and outside of this mixing zone, the water quality would return to background levels. Agnico Eagle also stated that

³³ K. Poole, Kivalliq Inuit Association, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 139, lines 8-17.

³⁴ See Commitment #38 provided in Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

the discharged water would be treated and could not be discharged via the waterlines into the marine environment until the water met the water quality criteria set out in the *MDMER*. Agnico Eagle confirmed that sampling of different water quality parameters would continue to monitor for marine environment water quality impacts, both at the end-of-pipe and in the receiving environment. The impact of water quality on marine wildlife is further discussed below in Section [4.2.10](#).

At the Public Hearing, CIRNAC confirmed that its technical comments related to water quality were resolved, as water quality would be monitored and compared to regulatory limits throughout the treatment process, and the discharge to Melvin Bay would be stopped in the event of discharge criteria exceedances. Agnico Eagle also committed to complete post-discharge sampling for the first three (3) years of operation of the waterlines in response to concerns from KIA to ensure that the increased volume of saline effluent could adequately be flushed from Melvin Bay, with the saline effluent concentration returning to near zero (0) at the end of each discharge season.

For a discussion of potential for effects on water quality resulting from the discharge of mixed effluent (saline effluent and surface contact water), see Section [4.6.2](#).

4.2.10 Marine Wildlife

Throughout the assessment, concerns were heard from multiple members of the public, Community Representatives, and Intervenors regarding whether the water discharged from the waterlines into Melvin Bay could potentially harm marine species, including fish and marine mammals.

As described above in Section [4.2.9](#), Agnico Eagle concluded that in its assessment of the quality of water being discharged into Melvin Bay, that the water quality would be expected to be similar to background levels by 100 m from the discharge point.

*...our studies have told us about what the current water quality is in the ocean and what the future water quality would be in Itivia Harbour. The studies are telling us that the water quality will be safe for all of the sea creatures from the small organisms at the bottom of the food chain, so the plankton, all the way up to the fish and the seals and the whales.*³⁵

Agnico Eagle confirmed in responding to several parties that the treated saline effluent would be required to comply with the *MDMER* which sets limits on water quality and concentrations of deleterious substances for discharge into fish-bearing waters. However, within the KWB and Kivalliq HTOs' joint presentation it was noted that even if the saline effluent would comply with

³⁵ C. Prather, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 83, lines 12-19.

criteria set out in the *MDMER*, because the regulations are based on acute toxicity³⁶, compliance with *MDMER* may not be sufficient to prevent other types of ecosystem-level impacts. Similarly, when questioning the Proponent, ECCC identified that the *MDMER* does not have a requirement for ongoing sublethal toxicity³⁷ testing. To address these remaining concerns, Agnico Eagle committed to adding sublethal toxicity testing to the next updated to the Ocean Discharge Monitoring Plan.

Additionally, although Agnico Eagle did not predict impacts on shellfish would result from the Waterlines Proposal where shellfish are harvested by Rankin Inlet community members, Agnico Eagle committed to establishing a community-based shellfish monitoring program. This community-based monitoring program would be conducted to confirm the results of Agnico Eagle's studies that predict the saline effluent and/or surface contact water discharged into Melvin Bay would not affect the marine wildlife and that it would still be safe for the shellfish, fish, and the marine mammals in the area. Further discussion of this issue can be found in Section [4.4.4](#).

At the Public Hearing, DFO stated that based on the horizontal directional drilling method of subsea pipeline installation and the limited footprint of the marine components of the Waterlines Proposal, the proposal would have minimal impact on fish and fish habitat. However, DFO specified that it is currently in the process of assessing a Request for Review for the proposed works extending into Melvin Bay.

The Kangiqliniq HTO questioned DFO regarding the impact of the operation of a diffuser in Itivia Harbour on the migration of Arctic char, noting that this species is attracted to moving water and may be attracted to the diffuser as a result. The KWB followed up with questions about whether DFO expected an impact to Arctic char if they were continually attracted to the diffuser and therefore may be attracted to the area within the 100 m mixing zone or not able to migrate back to the river before the end of open water season and DFO stated:

Our understanding of the question, would Arctic char be attracted to the diffuser, which would interfere with their spawning behaviour or behaviour in general, DFO is currently not aware of any modelling of impacts of diffusers on char specifically that would -- and we expect that -- the impact of the diffuser to be negligible.

Arctic char return with high precision to their home river, as they can detect its water chemistry. They typically do not select rivers

³⁶ As per the *Metal and Diamond Mining Effluent Regulations* (SOR/2002-222), acutely lethal, in respect of an effluent, means that the effluent at 100% concentration kills more than 50% of the three-spine stickleback subjected to it for a period of 96 hours.

³⁷ Sublethal toxicity may cause effects that are not acutely lethal to the fitness of an organism (i.e., through affecting long-term survival, growth, and/or reproduction)

randomly and, therefore, would not particularly be attracted to the diffuser area in terms of spawning. ³⁸.

In response to the KWB, Agnico Eagle stated:

As -- as we understand through the depth measurements in Itivia Harbour, there is a water connection maintained through there year-round, and our discharge is seasonal, so occurring roughly from -- or would occur roughly from late June or early July through 'til September. So there -- it would be prior to -- to freeze-up that discharge would be stopping at -- and as I mentioned, the habitat in Itivia Harbour is fully connected out into the main ocean. So I'm -- I'm not sure that there would be the potential for char to be, I guess, stuck in that area. ³⁹

4.2.11 Proponent's Response to Parties' Final Written Submissions in Respect of Ecosystemic Effects

Following receipt of parties' final written submissions, Agnico Eagle provided its response to the final written submissions on May 17, 2021. For convenience, the Board provides the following summary of the responses provided in [Table 11](#).

Table 11: Summary of Agnico Eagle's Responses to Comments About Ecosystemic Effects

Party	Agnico Eagle Response Summary
NTI	<ul style="list-style-type: none"> ▪ Draft Terms of Reference for the TAG have been issued to parties; and ▪ Inuit Qaujimajatuqangit is a guiding principle in the TAG and this will be formally stated.
KIA	<ul style="list-style-type: none"> ▪ Highlighted that the Collared Caribou Memo was developed in response to the SDFN request to provide a concise technical description on the crossings and deflections of caribou in relation to the AWAR; ▪ Noted that the number of collared caribou in the local study area that did not cross the AWAR make up a very small proportion of the herd over the six (6) years since the construction of the road to 2019; ▪ Agreed that caribou can make decisions at scales larger than the local study area and stated that a collared caribou path density map at a much larger spatial scale was provided to KIA in response to an

³⁸ E Ratajczyk. Fisheries and Oceans Canada, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp.432-433, lines 16-25 and line 1.

³⁹ C. Prather, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at p. 362, lines 4-14.

Party	Agnico Eagle Response Summary
	<p>Information Request showing that caribou are affected by other variables such as large lakes;</p> <ul style="list-style-type: none"> ▪ Observed that the waterlines would eliminate some traffic disturbance to caribou on the AWAR; ▪ Provided comparison to the Meadowbank mine road where a study during the spring migration with Lorillard collared caribou data demonstrated that caribou interacting with the road arrived at calving areas without delay and with no effects on calving; ▪ Caribou monitoring analysis updates can be addressed through the TAG and updated in the TEMMP; and ▪ Noted that comments have not yet been received on the Terms of Reference for the TAG and they would be finalized within 60 days of issuance of an amended Project Certificate.
GN	<ul style="list-style-type: none"> ▪ Agnico Eagle would discuss with GN and TAG a revision to the Collared Caribou Memo which would be provided to the GN within six (6) months of the end of the Public Hearing.
KWB	<ul style="list-style-type: none"> ▪ Agnico Eagle stated that a fully functional TAG could only be achieved through a fully engaged and collaborative approach from all members and that it would work with federal agents to provide opportunities for the KWB to work with the TAG and Agnico Eagle would submit TAG documents within the annual report;
Kangiqliniq HTO	<ul style="list-style-type: none"> ▪ Monitoring data would be made available to the Kangiqliniq HTO through a Data Sharing Agreement.
SDFN and NDFN	<ul style="list-style-type: none"> ▪ Suggested that a new Term and Condition be created to continually review and refine mitigation and monitoring details within the TEMMP, incorporating additional caribou collar data, results from associated studies, other monitoring data, Inuit Qaujimagatugangit, and Traditional Knowledge.

4.2.12 Recommended Mitigation Measures in Respect of Ecosystemic Effects

To prevent, mitigate and monitor for potential ecosystemic effects associated with the Waterlines Proposal, Agnico Eagle is required to continue complying with the mitigation measures within the management and monitoring plans in effect for the approved Meliadine Gold Mine Project, including updates specific to the Waterlines Proposal (see the listing in Section [3.2.3](#) for more detail). Agnico Eagle would also be expected to fulfill all the commitments made throughout the assessment process, including at the Technical Meeting (January 11-13, 2021), Community

Roundtable and Pre-hearing Conference (February 11 and 12, 2021), in its responses to Intervenor’s final written submissions, and at the Public Hearing.⁴⁰

4.3 Summary of Submissions in Respect of Socio-Economic Effects

[Table 12](#) below provides a summary of the comments found in the final written submissions received from parties on Agnico Eagle’s IS Addendum in respect of the potential socio-economic effects associated with the Waterlines Proposal; the Intervenor’s comment submissions can be accessed through the NIRB’s Public Registry at www.nirb.ca/project/125515.

Table 12: Summary of Comments Received from Parties for Socio-Economic Effects

Party	Areas of Concern
NTI	<ul style="list-style-type: none"> ▪ The incorporation of Inuit Qaujimagatuqangit in monitoring and management plans; ▪ The capacity of communities and Inuit organizations to meaningfully contribute to the assessment process, TAG, and in monitoring functions; and ▪ Outstanding Inuit issues regarding the level of potential impacts to the terrestrial, freshwater, and marine environments and harvesting activities.
KWB	<ul style="list-style-type: none"> ▪ Supports the approach of Agnico Eagle integrating Inuit Qaujimagatuqangit into the creation of a TAG; <p>Impacts to harvesting:</p> <ul style="list-style-type: none"> ▪ Impacts of the AWAR on the Qamanirjuaq caribou herd have been felt by communities throughout their range; ▪ Agnico Eagle has not properly communicated the potential impact of spill on vegetation (i.e., communication with the woman’s working group that Agnico Eagle has created); ▪ Recommended that Agnico Eagle clearly communicate the safety of harvesting fish and mussels in Melvin Bay; and ▪ Expressed concerns surrounding the no-hunting zone in the current Project Certificate.

4.4 Summary of Intervenor’s and Communities’ Comments in Respect of Socio-Economic Effects

Throughout the NIRB’s assessment of the Waterlines Proposal the NIRB has heard about concerns that the Waterlines Proposal could result in changes to traditional activities and the aesthetics of the area surrounding Rankin Inlet. The Board also heard that the Kivalliq communities were concerned about the potential changes to culture that could be linked to changes to traditional

⁴⁰ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

activities, and the Board was urged to ensure that the potential for these effects should be weighed during the Board's decision-making process. As such, the public and Community Representatives made suggestions for changes to the Waterlines Proposal and shared knowledge in regard to many topics relating to socio-economic effects.

4.4.1 Heritage Resources

Community Members at the Public Hearing expressed concern regarding the history of the area:

For example, these old ayaks [phonetic] that are on the lands that you might be able to see, they're no longer visible because they're being vandalized or disturbed. So for that example, we don't want to come across that kind of situation, and I wanted to mention that.

If there are any committees that has to do with heritage and stuff like that, national parks, please monitor that much more than you are already. I used to be a committee member for the Parks Canada, and we wanted to protect our land by allowing Parks Canada to document everything that exists on the land so that in the future we know where they are and that sort of thing, and I would like for you guys to do the same.

The mining companies that are coming for minerals or gas, they're disturbing our land. These lands or hunting grounds, campsites, were where our ancestors lived on, and that's why it's important for me to have everything documented and that we just agree verbally. Nothing's ever going to change. We can be stronger if we have things on paper and that they are agreed upon.⁴¹

Agnico Eagle stated that the proposed activities would be occurring within the previously studied local study area and archaeological surveys had been completed; however, if new locations are identified during installation, the existing mitigation and monitoring plans would be followed.

4.4.2 Employment and Procurement

Community Representatives from throughout the Kivalliq region were concerned about the potential drop in Inuit employment levels for the Waterlines Proposal, because when the waterlines become operational there would be no need for employees to drive the trucks for saline effluent transport. The NIRB recorded similar issues throughout the assessment (see the summary of issues discussed during the Public Hearing in [Table 5](#)).

⁴¹ J. Nakoolak, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 613 and 614, lines 11-26 and lines 1-5.

How many staff members are working transporting this water today versus this waterline? How many staff members will be working once this waterline is implemented and operational?⁴²

Agnico Eagle responded:

And just to answer the question from Mayor Aksawnee to that effect, you asked how many workers are involved in the water trucks, carrying the water from the mine to the sea. There are -- prior to the pandemic restriction, there were 26 operators and approximately -- depending on the service, the 26 operators were hired by an NTI firm. That NTI firm provided 26 operators where approximately 3 were Inuit.⁴³

Agnico Eagle also stated that it would be adhering to the Inuit employment requirements under the Human Resources Plan and Inuit Impact and Benefits Agreement to ensure that Inuit employment levels were not adversely impacted by the Waterlines Proposal. For this set of proposed activities Agnico Eagle would identify a local contractor with capacity to meet the labour force demands to ensure Inuit are employed.

Community Representatives highlighted their support for a program that Agnico Eagle had used previously involving Elders going into the mine site to meet with Inuit employees. The Elders and Inuit employees could discuss issues arising at the site and how to resolve them, and this involvement of Elders supported Inuit employee retention at the site. The Board heard that this type of Elder mentorship also allowed for Inuit knowledge to be passed on, and it was noted that this program may reduce employment issues related to cultural differences.

Additionally, it was acknowledged by Rankin Inlet Community Representatives that Agnico Eagle had supported Inuit workers during the recent COVID-19 outbreak and that this was a big help for individuals and communities to get financial support and food.

Also when COVID-19 -- in March 2020, many people left their employment at the mine. Everything stopped, and the whole mine stopped. There was a big impact, and there was a time of uncertainty and -- with lack of income, and there was a lot of assistance and great assistance.

The mining company was a big help in any way they could. I have seen for myself that they have helped the community. They have made a way that they open. In two days they spent \$1 million. They

⁴² R. Aksawnee, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p, 525 614, lines 19-24.

⁴³ S. LeClair, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 539 and 540, lines 12- 26 and lines 1-3.

also contributed to other communities. I don't know how much, but I saw what our community in Rankin, 750,000 for languages, \$10,000 for suicide prevention, also -- and they would do draws and donate capital items. I really like that.

On top of that, when the Nunavut workers stopped working, they distributed food to every household in Rankin. No one complained. We were all reaching out for this food. We really appreciated. If you are offered a gift, don't reject the gift. Gifts were given as an act of love, and it was like -- it was an act of love when they did that, and I am so grateful for that. It was like the old practices were being replayed. Inuit used to give kamiks or other things because of their love.⁴⁴

We don't have much -- I know, as hunters, we may have disagreements, but those of us elderly, we had a very difficult life. Our fathers and grandparents did not know about wage economy, but in today's world we have to have meaningful employment in order to have an income. And, for that reason, we are very appreciative and -- for the help that we received from the mining companies and from the different communities. We had a lot of help from -- during the winter. We had over a hundred days where we could do nothing. It seemed like the days were long, and we had to follow the protocols from the public health office, but we have overcome.⁴⁵

4.4.3 Inuit Qaujimaningit

Inuit Qaujimaningit and Inuit Qaujimajatuqangit or Inuit knowledge, societal values, and world views are central to the NIRB's process and the NIRB uses all knowledge shared during an assessment to inform its processes and decisions.

Community Representatives and members of the public at the Public Hearing shared that Elders teach that if you show respect, you will be shown respect and that respect has been shown by Agnico Eagle. Trust is important and it is earned, and to earn respect it is important that all parties work to communicate with each other. The Board heard that all participants in the Public Hearing need to work on re-establishing effective communication about impact management and mitigation

⁴⁴ L. Brown. Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp. 706 and 707, lines 20-26 and lines 1-18.

⁴⁵ T. Ubluriak, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp. 745 and 746, lines 16-26 and line 1.

measures, monitoring results and the scale and scope of activities taking place and planned in relation to the previously approved project.

...-- it seems evident to me that the Agnico Eagle mine is way better and doing better than the other mining company. I know regarding Inuit Qaujimajatuqangit and what Elders have told us, that if we respect other people and show them respect, that you will -- you will be given and shown respect back, and because – because you have shown respect -- and that is why the Board and the delegates are giving you respect back...⁴⁶

Community Representatives also shared with the Board that Inuit Qaujimajatuqangit is not being recorded and that youth are not asking questions about Inuit Qaujimajatuqangit and the importance of learning this knowledge over time. Many Community Representatives noted that they had difficulties understanding the Inuit Qaujimajatuqangit that was used by Agnico Eagle for the original Meliadine Gold Mine Project and how Inuit knowledge was used to inform the plans for the Waterlines Proposal.

I hope that I'm able to teach my kids, my grandchild -- my future grandchildren for traditional knowledge, land use, and IQ principles. We are slowly losing our language, traditional harvesting, and Inuit Qaujimajatuqangit is slowly not being used.⁴⁷

This morning when I was listening to the speakers, when we speak about Inuit Qaujimajatuqangit, I think we are not recording and communicating with Elders enough, and the youth don't seem to ask us any questions anymore, and there needs to be improvement, and while I have this opportunity to speak, I'm just thinking of what -- my thoughts, and that is all for now. Thank you.⁴⁸

Agnico Eagle responded:

The importance of having to meet and speak and dialogue with Elders is now for Agnico Eagle extremely important. To this, we have mandated our IQ advisor to set up a group of Kivalliq Elder

⁴⁶ V. Strickland, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 651, lines 17-24.

⁴⁷ L. Saumik, Whale Cove, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 564, lines 5-9.

⁴⁸ V. Joedee, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 536, lines 12-19.

advisory group, which we're proud to announce we will be meeting – all meeting this week Friday for the first kickoff meeting.

The plan is to meet with Elders on a regular basis to explain what's going on with the mine and what is the future of the mine.⁴⁹

To Inuit Qaujimagatuqangit concerns, Intervenors, and Governments responded:

NTI

I'd just like to thank all the communities' delegates for their questions and concerns, and we'll be continuing to track and follow along with them on the concerns that are being raised and see how we can improve that engagement and that involvement into the process.⁵⁰

KIA

We are still -- we are still working in that with the proponent, and - and in regard of the monitoring, we do have a monitoring system in place for scientific waters [sic matters] and also traditional knowledge.⁵¹

GN

It is very important to hear from the government standpoint when youth are expressing their concerns, and we take these expressions very seriously, including myself who's a community member and relatively young compared to the Elders here.

So, again, similar to NTI and also KI [sic KIA], there are monitors being progressed when it comes to monitoring and accidents, and I applaud you for saying some of the things about losing the traditional knowledge, IQ principles, and we're hoping to change those and strive to include more traditional knowledge and also to improve it.⁵²

⁴⁹ S. LeClair, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp.537 and 538, lines 25-26 and lines 1-7.

⁵⁰ B. Dean, Nunavut Tunngavik Incorporated, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 17, 2021 at p.565, lines 13-18.

⁵¹ L. Manzo, Kivalliq Inuit Association, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.566, lines 6-9.

⁵² G. Karlik, Government of Nunavut, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 17, 2021 at pp.566 and 567, lines 23-26 and lines 1-9.

Further, Intervenors also commented on the need for Inuit Qaujimajatuqangit to inform effect mitigation and monitoring programs, specifically those described in the TEMMP. It was noted that the TAG could play an important role to ensure Inuit Qaujimajatuqangit shared with Agnico Eagle would inform the development and implementation of the TEMMP.

And for my last comment, the surrounding areas of our land like the water, the land, we need to make sure things are planned properly right to Arviat and Baker Lake and Chesterfield Inlet. The employment needs to be taken into consideration as well. When doing an inventory of wildlife, Inuit most times always know best.

And as long as you consider Inuit Qaujimajatuqangit and you are planning and managing the area that you disturbed and involving us board members, committee members, local people, we have knowledge – a lot more knowledge compared to what you may know.⁵³

We are -- we are knowledge keepers of Inuit Qaujimajatuqangit. The meaning of -- what it means is what Inuit have known for a very long time. We follow the traditional teachings, what Inuit have known for a very long time. The knowledge. I'm just making a correction on the term "Inuit Qaujimajatuqangit", and I ask that God bless you all, and God bless everyone.⁵⁴

And using Inuit IQ, it's like this. The caribou, like, they walk not only to areas. They use their nose, smelling, and the feet, the hoof -- the hoof. Like, they follow. That's how they use their hooves. Not only their hoof, but they also smell. Like, caribou know where to go. That's been the -- how they have been.

And the caribous we have been told as Inuit, our ancestors, if we're going to be hunting, harvesting, like, using the IQ, if we want to have good meat, like -- like, when they go hunting, like, they didn't want us to shoot them right away, but the -- for the meat, we have to catch it through the heart.

⁵³ P. Putumiraqtuq, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.693, lines 10-21.

⁵⁴ T. Ubluriak, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.747, lines 6-12.

IQ, Inuit Qaujimajatuqangit, it's very important. Like, for us it's been our ancestors' way of hunting. I just wanted to let the mining companies know about how caribous do. Like, they have leaders as well, and if they go to a different trail, that's when they find out, like, they have hooves that are round.

Like, they have little ways of knowing. They smell. Like, sometimes -- they look down all the time, and they know the trail. They know the -- they know their trail.⁵⁵

And one of the things that was mentioned about Inuit Qaujimajatuqangit and -- you were quoting those principles that the government established some years ago. To me, Inuit Qaujimajatuqangit is -- and I'm going to give you an example. Inuit Qaujimajatuqangit is something that is instilled in us and something that we learn over time.⁵⁶

Thank NIRB with incorporating -- they are incorporating Inuit Qaujimajatuqangit. I wanted to say something about Inuit Qaujimajatuqangit. Mr. Mimialik was saying them -- he said them already, but -- a little bit about IQ known as Inuit Qaujimajatuqangit. There is a lot of ways to apply it, use it. One of them is an intellectual way, reading about it, conceptualizing about it, and then there are practical ways, and that means applying the use of Inuit Qaujimajatuqangit.

As we see NIRB with the Chair -- with an Inuk Chairperson and, again, more Inuit facing us, that's the use of Inuit Qaujimajatuqangit. In the roundtable, 100 percent of Inuit again.⁵⁷

⁵⁵ T. Ubluriak, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.455, lines 4-26.

⁵⁶ B. Dean, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.619, lines 8-14.

⁵⁷ T. Comer, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp.664 and 665, line 26 and lines 1-8.

During the Public Hearing, the KWB noted that Agnico Eagle had committed to include Inuit Qaujimajatuqangit in the decision-making process for the TAG. However, there remained a lack of clarity on how this would translate into action items or updates to Agnico Eagle's management, mitigation or monitoring plans if an impact were to be noted by a community-based organization.

In response, Agnico Eagle noted:

We have -- in the draft terms of reference, we -- we have a clause where traditional knowledge, IQ, would be merged with western science based on the studies that would occur, so we feel there's an opportunity to look at this from the western science point of view and traditional knowledge and IQ point of view and where they're integrated into some decision-making. And the monitoring -- like we said earlier, the monitoring programs would be adjusted based on the information that is found in the field.⁵⁸

Community Representatives and members of the public also identified concerns about a lack of communication and access to monitoring information in relation to the Meliadine Gold Mine Project.

We want to remind you -- I want to remind you that we were expecting to see this, that our life was going to change, and it's happening now. This can be fixed if we plan it properly and talk about it consensually [sic to reach consensus] like in the old days.⁵⁹

It is one of my concerns and probably around the table's concern that we need better staff to provide info before going to public hearings and to educate Inuit about events, monitoring, and mitigate impacts and share traditional knowledge...As many of us around the table, we did not have the proper information. I just want to mention this so we can be prepared on where and who and how we can get that information from for public hearings and for the Nunavut communities, as we don't have much knowledge of what's happening.

Can the HTO, hunters and trappers organizations, the Government of Nunavut, the municipal hamlets and the communities, NTI, and our representatives or MLA, and the proponent, Agnico Eagle, to

⁵⁸ J. Quesnel, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p.169, lines 18-24.

⁵⁹ P. Putumiraqtuq, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.691, lines 13-17.

*provide an education for Inuit people for all ages so they can raise their concerns about what events are happening.*⁶⁰

The NTI, KIA, and GN noted several similar items in their respective responses to community comments seeking more information be shared with the community; specifically, everyone can do a better job supporting one another in discussing the materials publicly available and everyone needs to educate or support each other for meetings such as the Public Hearing. The potentially affected communities made it clear that they want to have access to information about any ecosystemic and socio-economic effects of the project identified through project monitoring. These communities also want to know how Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community knowledge is collected, and how community members can contribute, as early in the design or modification process as possible, to Agnico Eagle's process for identifying and designing modifications and monitoring of the existing project. Community Representatives stated that government departments and the public may have different perspectives, but if clear communication is established, these differences could be resolved, and communities would have a better understanding about the assessment and monitoring processes associated with the original Meliadine Gold Mine Project and Agnico Eagle's request to modify the project. Further, communities advised the Board that it is important for these debates and discussions to take place so that everyone can understand each other and have resolution on the important issues.

Community Representatives emphasized that all parties should work together to provide information and education about all the projects taking place around Rankin Inlet and the Kivalliq region. Some Community Representatives noted that while a return to the ancestors' lifestyles is not something that is possible, it is important to respect the *Nunavut Agreement* and what is written down will assist with protecting culture and the Inuit.

4.4.4 Traditional Land and Resources Use

As expressed earlier, members of the public, throughout the assessment of the Waterlines Proposal and Community Representatives participating during the Community Roundtables, highlighted the importance of ensuring the surrounding area is protected throughout the operation of the Meliadine Gold Mine Project and the Waterlines Proposal (if approved) so that Inuit would have continued access to hunting, berry picking, fishing and other traditional activities. The commenters emphasized that it is important to ensure, for both the health of individuals and the continuation of Inuit Qaujimaningit, that future generations are able to experience what past and present Inuit experience.

On this topic, the Board also heard questions and comments from members of the public, throughout the public engagement opportunities associated with the Waterlines Proposal, regarding the importance of preserving the health of the vegetation, soil, and wildlife. During both

⁶⁰ L. Saumik, Whale Cove, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp.592-593, lines 17-26 and 1-26.

of the Community Roundtable Sessions hosted at the Pre-Hearing Conference and the Public Hearing, Community Representatives emphasized that they wanted information and feedback from all regulatory Intervenors regarding the safety of the land, as many Inuit continue to live off the land. Country food (e.g., caribou, fish, and berries) is an essential part of the Inuit diet and maintenance of culture and is the main source of food in many homes. It was shared that Rankin Inlet can access country food but there are many communities that are no longer able to harvest country food or are no longer able to harvest as much as country food as they have in the past.

The people of Baker Lake are concerned about the proposed project impact on the Qamanirjuaq caribou herd, impacts on caribou impacts Inuit throughout the Kivalliq, and we want to have healthy caribou herds long into the future.

We rarely see the Qamanirjuaq herd to the south of Baker Lake. This change corresponds with the construction and operation of the Meliadine Gold Mine.⁶¹

How will -- how will the future generation be safeguarded and the generation now? Once we are gone, it seems like there will be no wildlife from the sea and from the land by -- for them, and I am really concerned about the people of Baker Lake because they rely heavily on caribou. All of you be aware.⁶²

We also notice, as the community of Whale Cove, that we have to travel further for hunting. It does -- the impacts that are happening in Rankin will also affect other communities around Rankin Inlet. We will -- if there is damages and impacts, we, as Inuit, will live with the consequences if there is damage and impacts on wildlife, the land, vegetation, marine mammals, and sea ice...⁶³

...we have fondness for the land, for the animals, for the birds because they are our food...⁶⁴

⁶¹ H. Putumiraqtuq, Baker Laker HTO, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.749, lines 18-26.

⁶² L. Samumik, Whale Cove, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.697, lines 8-13.

⁶³ L. Samumik, Whale Cove, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.594, lines 9-16.

⁶⁴ L. Brown, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.697, lines 15-17.

...If I go there, there -- there would be caribou all the time. Now that the mine is there, you can barely ever find caribou over there. Here's my concern: When the mine started, the greenhouse gas emissions that are coming from the mine are coming in to our land, and we're breathing it in...⁶⁵

And our fish over at Meliadine, like, they were easy to catch. Today we can't even catch them because the lake -- somehow the ice is different. The water and the ice are different already...⁶⁶

Baker Lake Community Representatives told Agnico Eagle that they did not think the use of flags as safety markers along the AWAR is a good solution, as these flags flap in the wind and make noise that disturbs caribou.⁶⁷

Community Representatives at both the Pre-Hearing Conference and the Public Hearing shared that they had observed caribou not wanting to cross the AWAR, moving alongside the road, but not crossing. They also indicated that community members are having to go further to harvest eggs and berries. Further noting that local harvesting activities have changed as the Meliadine mine site area was previously used a lot for hunting and fishing, and these areas are no longer accessible or require different travel routes. Itivia Harbour was also an area used as a gathering spot for nearby communities to harvest shellfish and hunt seals. It was noted that everyone has to be vigilant to prevent effects that could change the way caribou migrate in the Kivalliq region.

Concerns about effects on the health and safety of traditional foods such as berries and caribou were discussed previously in Sections [4.2.6](#) and [4.2.7](#) and are also discussed in the discussion of the Human Health Assessment in Section [4.6.5](#) that follows.

Remarks were also provided related to travel on the ice in Melvin Bay/Itivia Harbour as travel on the ice from Rankin Inlet to other Kivalliq communities and vice versa is very common throughout the winter. Community Representatives and members of the public also raised concerns related to the saline effluent discharge and how the salty groundwater could impact the health of the Melvin Bay area and its inhabitants, for further discussion refer to the discussion of the Marine Water Quality, Marine Sediment and Marine Wildlife in Sections [4.2.8](#), [4.2.9](#), and [4.2.10](#) and the Human Health Assessment in Section [4.6.5](#) below.

⁶⁵ J. Nakoolak, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.612, lines 4-9.

⁶⁶ G. Kako, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.569, lines 12-15.

⁶⁷ P. Putumiraqtuq, Baker Lake, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at p.695 and 696, lines 23-26 and lines 1-10.

Community Representatives discussed the potential changes to travel and enjoyment of the area where the waterlines and diffuser would be installed. Agnico Eagle has committed to using Inuit Qaujimagatuqangit to identify areas for crossing structures and to cover 80 to 90% of the waterlines. Agnico Eagle proposed to route the waterlines as requested on the east side of the rock outcrop at Apache Pass as requested by community members during consultations, further Agnico Eagle has stated that it would engage with land users to identify areas of use to ensure that these areas remain accessible and safe for people and animals. Agnico Eagle also stated they would seek the advice and knowledge of Elders to identify caribou crossing areas to ensure the waterlines would be covered in these areas. Agnico Eagle also committed to incorporate Inuit Qaujimagatuqangit into program monitoring to confirm that the covered areas of the waterlines do not create a barrier to caribou crossing the project roads.

4.4.5 Proponent’s Response to Parties’ Final Written Submissions in Respect of Socio-Economic Effects

Following receipt of parties’ final written submissions, Agnico Eagle provided its response to the comments received on May 17, 2021. For the convenience, [Table 13](#) provides a summary of Agnico Eagle’s response submission addressing comments about the potential for socio-economic effects.

Table 13: Summary of Agnico Eagle’s Responses to Comments About Socio-economic Effects

Party	Agnico Eagle Response Summary
NTI	<ul style="list-style-type: none"> ▪ Confirmed that Inuit Qaujimagatuqangit would be a guiding principle within the TAG and TEMMP and Agnico Eagle would ensure that this is explicitly stated.
KWB	<ul style="list-style-type: none"> ▪ There would be no changes to the existing water quality at any identified shellfish harvesting areas and that there would be a community-based shellfish monitoring program established; ▪ There would be a leak detection system installed on the waterlines and committed to only using the waterline during non-freezing conditions, clearing the line at the end of each discharge season; ▪ Stated that Agnico Eagle would communicate spill information with the KWB, Kangiqliniq HTO, and other working groups such as the Women Focus Group; and ▪ Highlighted that the no-shooting zone is not part of this proposal, however Agnico Eagle is open to having further discussions about this topic.

4.4.6 Recommended Mitigation Measures in Respect of Socio-Economic Effects

To prevent, mitigate and monitor for potential any socio-economic effects associated with the Waterlines Proposal, Agnico Eagle is required to continue complying with the mitigation measures within the management and monitoring plans in effect for the approved Meliadine Gold Mine Project, including updates specific to the Waterlines Proposal. Agnico Eagle would also be expected to meet all the commitments the Proponent agreed to throughout the assessment process, including at the Technical Meeting (January 11-13, 2021), Community Roundtable and Pre-hearing Conference (February 11 and 12, 2021), in its responses to Intervenors' final written submissions, and at the Public Hearing.⁶⁸

4.5 Other Issues Considered by the Board

[Table 14](#) below provides a brief summary of the comments received in final written submissions from parties on Agnico Eagle's IS Addendum in respect of other issues considered by the Board; for the complete comment submissions please access the NIRB's Public Registry at www.nirb.ca/project/125515.

Table 14: Summary of Comments Received from Parties in Respect to Other Issues Considered by the Board

Party	Areas of Concern
KIA	<ul style="list-style-type: none"> ▪ Not satisfied with management of surface contact water at the Meliadine site as KIA does not support ongoing discharges to Meliadine Lake ▪ Requested Agnico Eagle provide modelling for amount of surface contact water that can be discharged into Melvin Bay; ▪ Suggests using a reduced dewatering rate of stored saline effluent in the Tiriganiaq-2 pit when/if the waterlines become operational in order to increase discharges of surface contact water; ▪ Recommended Agnico Eagle minimize discharge into Meliadine Lake by devoting at least 50% of the waterline capacity to discharging surface contact water as soon as the waterline becomes available; ▪ Requested prioritizing the discharge of surface contact through the waterlines during freshet or as soon as waterlines are operational each year; and ▪ Suggested that freshwater discharge volume be limited by compliance metrics instead of percent of waterline capacity.

⁶⁸ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

Party	Areas of Concern
	<p>Resolved Technical Review Comments:</p> <ul style="list-style-type: none"> ▪ Spill management concerns with the provision of an updated Spill Contingency Plan including information on the waterline.
CIRNAC	<p>All technical review comments were resolved within the Technical Review period of the assessment:</p> <ul style="list-style-type: none"> ▪ Agnico Eagle’s provision of a Failure Modes and Effects Analysis report resolved concerns on assessment of potential failure modes and their effect, specifically potential spills and their environmental impacts with; ▪ Concerns resolved regarding impacts to ice-rich soil if saline effluent is released to the tundra; and ▪ Questions satisfied regarding lack of detail on the design and function of the leak detection system.
HC	<p>Country food harvest:</p> <ul style="list-style-type: none"> ▪ Requested Agnico Eagle provide recent evidence to confirm whether harvesting occurs in the Melvin Bay area; ▪ Suggested Agnico Eagle monitor to confirm assessment predictions, and use signage to inform community members of the location of the saline effluent discharge area; ▪ Identify Chemicals of Potential Concern in the effluent; and ▪ Recommended that the community-based monitoring program for include country foods identified as being consumed.
KWB	<ul style="list-style-type: none"> ▪ Concern regarding the potential of waterline spills on freshwater waterbodies along the AWAR.
Kangiqliniq HTO	<p>Waterline spills:</p> <ul style="list-style-type: none"> ▪ Immediate shutdown of the pipe in the event of a rupture and containment of spill; ▪ Reporting of spill with photos and testing results be made available to the public in a plain language form; and ▪ Efforts be made to prevent wildlife from ingesting the effluent spill.

Party	Areas of Concern
SDFN and NDFN	<ul style="list-style-type: none"> ▪ Concerned with negative effects on Qamanirjuaq Caribou Herd as reduction of the herd may limit the ability of SDFN and NDFN members to maintain their culture, their way of life, and their Aboriginal and Treaty rights to harvest caribou. <p>Waterline spills:</p> <ul style="list-style-type: none"> ▪ Requested a decision framework to determine whether to shut down the waterline when caribou are in the vicinity due to lack of clarity and objectiveness for the term “vicinity” for the decision to “immediately shut down the waterlines, when caribou are in the vicinity” when a leak is detected; ▪ Highlighted that specific information about prevention of spill access to caribou and safety for caribou to return after a spill is needed; ▪ Requested a decision framework to determine whether to shut down the waterline when caribou are in the vicinity; ▪ Recommended that Agnico Eagle provide an annual report assessing the performance of the waterline system including the following; and ▪ Recommended creation of a new Term and Condition covering waterline operation given the waterline system, including the fiber optic leak detection system, are new components of the Project which resulted in concerns regarding possible spills of saline effluent to the terrestrial and freshwater environments.

4.6 Summary of Intervenors’ and Communities’ Comments in Respect of Other Issues Considered by the Board

4.6.1 Transboundary Effects

As discussed in more detail in Sections [4.2.7](#) Terrestrial Wildlife and Section [4.6.4](#) Cumulative Effects, the potential for impacts (including transboundary effects) on the Qamanirjuaq caribou herd was the focus of discussions of transboundary effects for this project throughout the NIRB’s assessment of the Waterlines Proposal. The potential for effects on caribou was also the basis for the involvement of the SDFN and the NDFN in the assessment of the Waterlines Proposal:

For thousands of years, our First Nations have harvested Qamanirjuaq caribou throughout our traditional territory and what is now Nunavut, Manitoba, Saskatchewan, and Northwest Territories. The existence, culture, and rights of our people are deeply connected to the caribou and its habitat. Any harm to the caribou is harm to the Dene...

We are participating in this review to make sure that any potential impacts to caribou are fully understood and prevented. We know

*that even small impacts or changes in one spot can build up over time and cause serious problems for the herd.*⁶⁹

Although the Board heard that the current range of the Qamanirjuaq herd is changing, the evidence of the Hunters and Trappers Organizations participating as Registered Interveners, the Government of Nunavut, and the SDFN and NDFN is that the range of the Qamanirjuaq herd extends through Nunavut, Manitoba, Saskatchewan, and the Northwest Territories, including overlapping with the Meliadine Gold Mine Project and the areas along the all-weather access road and at Itivia where the waterlines would be installed.

Agnico Eagle's assessment of the Waterlines Proposal concluded that on the basis of the mitigation, management and monitoring measures designed to prevent all effects (including direct and residual transboundary effects) on caribou that there would be no transboundary effects on this critical resource.

However, as detailed in Sections [4.2.7](#) (Terrestrial Wildlife) and Section [4.6.4](#) (Cumulative Effects), many of the Registered Interveners were concerned that the effects on caribou from the already-approved project are not well understood, which decreases the confidence of these parties with the predictions of no effects associated with the Waterlines Proposal, including the predictions that that there would be no transboundary effects.

In response to concerns about transboundary effects on caribou, the SDFN and NDFN proposed two (2) additional terms and conditions; one (1) in respect of the Terrestrial Advisory Group and secondly in relation to the operation, maintenance and monitoring of the waterline system, including reporting obligations in relation to the leak detection system.⁷⁰

4.6.2 Alternatives Analysis

The NIRB heard concerns during the community consultations conducted throughout the assessment and further expressed by Community Representatives at the Public Hearing, that the water in Meliadine Lake was no longer good for drinking. These community concerns about the impact of discharges of surface contact water (snowmelt, rain, and run off, that comes into contact with the mine operations and is collected in containment ponds at the site) into Meliadine Lake were also raised by the KIA. Consequently, as part of the adaptive management of overall water management at the site, Agnico Eagle proposed that the waterlines could be used to discharge both treated saline groundwater and treated surface contact water into Melvin Bay. As summarized by Agnico Eagle during the Public Hearing, diverting surface contact water into the waterlines for

⁶⁹ G. Bussidor, Sayisi Dene First Nation (also presenting for Northlands Denesuline First Nation), NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 488, lines 1-7 and 20-25.

⁷⁰ See these responses as summarized in the presentation of G. Bussidor, Sayisi Dene First Nation (also presenting for Northlands Denesuline First Nation), NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 499-500, and Exhibit 20, NIRB Public Hearing File No.: 11MN034, filed by Sayisi Dene First Nation and Northlands Denesuline First Nation on June 17, 2021, Correspondence (and attachment) from G. Bussidor and B. Denechezhe to K. Costello RE: Sayisi Dene and Northlands Denesuline Technical Presentation re: Agnico Eagle's "Saline Effluent Discharge to Marine Environment" Project Proposal.

discharge into the marine environment would address community concerns about project-impacts on Meliadine Lake by significantly reducing the amount of water discharged into Meliadine Lake.

Since Day 1 we are working on the Meliadine project, Rankin Inlet community was clear with us. Meliadine Lake is important, and we have to protect it. We always take that seriously, and our current discharge in Meliadine Lake is safe and respect[s] regulation.

However, with the waterline project, we can bring this commitment to another level. We can start discharging surface water in the ocean through the waterline as well.

We plan to move most of the water into the waterline, and we will do our very best to reduce the discharge to Meliadine Lake. Sometime it's going to be zero; some other years it's going to be more, but we will maximize the use of the waterline.

So there will be less impact at Meliadine Lake with this approach. The initial project was planning discharging all the surface contact water, so all the rain, all the snow was going to Meliadine Lake. So with the waterline, we reduced significantly the amount of water going to Meliadine Lake. Some years, it might be zero, and others we might have more, but less than we were originally planning. So overall the impact will be less. Thank you.⁷¹

In its final written submission, KIA emphasized the importance of receiving a commitment from Agnico Eagle to divert treated surface contact water into the waterlines so that it would be discharged into Melvin Bay rather than Meliadine Lake. As such, KIA requested that Agnico Eagle commit to using at least 50% of the waterlines' capacity for surface contact water to eliminate, altogether, the need to discharge water into Meliadine Lake or suggested limiting surface contact water not by a percent of water allowed to be discharged but by a lower total dissolved solids limit ensuring that water is still compliant to *MDMER* and not acutely toxic. At the Public Hearing, KIA reiterated that because Agnico Eagle's hydrodynamic modelling had predicted that there would be no negative effects if mixed effluent (saline effluent and surface contact water) was discharged to Melvin Bay, the KIA requested that Agnico Eagle commit to diverting all surface contact water to Melvin Bay as soon as the waterlines would be operational:

⁷¹ M. Groleau, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 510-561, lines 22-26.

...in KIA's input on the adaptive management plan, we had requested Agnico Eagle commit to suspending discharges to Meliadine Lake unless absolutely necessary. Understanding that Agnico Eagle has a need for operational flexibility, I'm trying to make the numbers work out to understand why the waterlines would not be available as soon as -- for use for [surface contact water stored in Containment Pond 1] CPI as soon as the waterlines have been constructed⁷²

Agnico Eagle did not commit to either specifying the proportion of surface contact water that would be discharged via the waterlines, or to completely eliminating the discharges of surface contact water to Meliadine Lake if the Waterlines Proposal were approved, noting the need for operational flexibility to deal with the water management conditions on-site at any given time:

The variability in water management always creates the need for flexibility, and, as we stated multiple times, if the waterline gets approved, we would minimize the discharge to Meliadine Lake...

but we cannot ...predict what may happen based on a wet year, a dry year, a 1-in-100-year storm event, 1-in-20, so on and so forth. But the site has to deal with the reality that happens and have to -- they have to be nimble, they have to be flexible, and they need the adaptive piece to ensure they can move water in a reasonable time.

So if the water management situation on-site allows all the water to be moved, we would minimize the discharge at Meliadine Lake. We just need that flexibility.⁷³

Additionally, the KIA noted that Agnico Eagle's Adaptive Management Plan⁷⁴ addressed discharge of mixed water discharge. The Adaptive Management Plan stated that surface contact water would not be discharged until the saline groundwater management at the site was under normal operating conditions. Agnico Eagle responded that the Adaptive Management Plan did not specifically define when "normal operating conditions" could be reached leading to confusion on when the discharge of surface contact water through the waterlines could begin. To this effect, at the Public Hearing the KIA provided two (2) recommended terms and conditions which included daily discharge volumes dictated by the Adaptive Management Plan and suggested updates to the Adaptive Management Plan in order to increase the volume and timeline of surface contact water

⁷² R. Nesbitt, Kivalliq Inuit Association, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p.131, lines 13-21.

⁷³ J. Quesnel, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at pp.133-134, lines 15-19, 22-26 and 1-6.

⁷⁴ Agnico Eagle Mines Limited (February 2021). *Adaptive Management Plan for Water Management, Version 1*. Public Registry ID No.: 333022.

discharged through the waterlines and restrict or eliminate the discharge of surface contact water into Meliadine Lake.⁷⁵

4.6.3 Accidents and Malfunctions

Throughout the assessment, members of the public, Community Representatives, and Intervenors expressed concerns regarding the potential for spills or leaks from the waterlines to impact terrestrial and freshwater environments. In the KWB and HTOs' joint presentation, the KWB noted that there remained outstanding concerns on the impact from spills and the communication of these spill events to community members.

Any spills from the pipeline will have an impact on freshwater ecosystems, vegetation, wildlife, and, therefore, Inuit harvesting. When spills occur, plain language reports and pictures of spills must be made available for the public.

The Kivalliq Wildlife Board remains concerned that this is considered low risk. A quick look at the 2020 annual report shows that there were 126 spills on-site in 2020. Also, it remains unclear what long-term impacts would be in the case of a minor spill in low points along the all-weather access road.⁷⁶

CIRNAC noted that its concerns have been resolved with Agnico Eagle's commitment to include details on operation and maintenance of the waterlines into an existing management plan to be submitted 30 days in advance of the waterline system becoming operational. During the Public Hearing, the SDFN and NDFN stated that 30 days was not sufficient time for parties to meaningfully review the amendments to an existing plan and requested that the updated plan be provided at least 60 days in advance of commencement of the operation of the waterlines.

During the SDFN's and NDFN's joint presentation at the Public Hearing, the Intervenors noted concerns regarding the potential impact from spills to caribou in the case of ingestion, which was a concern also heard from Community Representatives during the Public Hearing:

...if there are accidental spills or water leaks, pools of saline effluent might be produced. If saline water is accessible to caribou, they may drink it. We are concerned that if this happens, caribou and especially calves might get sick.⁷⁷

⁷⁵ Exhibit 23, NIRB Public Hearing File No.: 11MN034, filed by the Kivalliq Inuit Association, June 17, 2021 *Proposed Terms and Conditions and Commitments* NIRB File No.: 11MN034.

⁷⁶ C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 463-464, lines 17-26 and 1.

⁷⁷ G. Bussidor, Sayisi Dene First Nation, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.493, lines 3-7.

SDFN and NDFN stated that Agnico Eagle did commit to immediately shutting down the waterline if a leak were to be detected while caribou were in the vicinity; however, did not provide an objective description of what was considered “in the vicinity” or how caribou would be isolated from spills.

A Community Representative also questioned whether there would be an impact to caribou health should they drink saline effluent in the case of a spill in the terrestrial environment. Agnico Eagle responded that through consultation with a veterinarian it was determined that, throughout the migration range, caribou interact with salt water on a regular basis and do not consume that water, as there are many sources of freshwater.

Community Representatives noted; however, that caribou and small mammals do look for salt to consume but if it is similar to ocean water it would be okay:

I am aware -- I am aware that the youth from Whale Cove, her comments, the waterline, if it was dripping or spilling and that -- and the -- she seemed concerned that the water -- the caribou might drink that effluent water, but I know this from -- I have -- the land between Arviat and Churchill, Manitoba, is a marshy land. To the west of us, we -- from Arviat, we go to the west to hunt, and I have become aware that caribou, like us, also eat seaweed, and seaweed contains a lot of salt, and caribou eat seaweed that is from the seawater, and the saline water that is in the mine site and if it contains salt and if there are no additional chemicals in that saline water and if it is discarded into the sea or the ocean, but if it contains any other -- any chemicals and if -- if the water contains no sediments and if it is similar to salt and then if it is discarded into the ocean at Itivia, then it is okay...

...I am aware that -- that rabbits and smaller animals, they also look for salt to eat.⁷⁸

4.6.4 Cumulative Effects

During the Public Hearing, the Board heard that the Kivalliq communities were concerned about how even small effects can add up: “...everything is connected with water, land, vegetation, animals, and people...any small impacts that happen to everything we use on the land, it builds up.”⁷⁹

⁷⁸ P. Alareak, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp. 687, 688, and 689 lines 26, lines 1-18, and lines 1-2.

⁷⁹ L. Saumik, Whale Cove, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 563, lines 21-22 and 25-26.

Throughout the assessment, there were concerns expressed by Intervenors and members of the Kivalliq communities that even small impacts from the waterlines could combine with the effects of other project infrastructure such as the AWAR, other activities in the area, such as helicopter/air traffic, and climate change to have significant cumulative effects. These concerns surrounded the potential for the Waterlines Proposal to have cumulative effects on:

- caribou and terrestrial habitat;
- greenhouse gas emissions/climate change; and
- marine mammals, marine fish, shellfish and marine habitat.

With respect to the potential for cumulative effects on caribou and caribou habitat, as stated during the Public Hearing, several parties expressed this concern, and were not convinced by Agnico Eagle's conclusion of "no significant cumulative effects":

...regarding the potential for the project to (AUDIO FEED LOST) to negative [have] regional and cumulative effects on caribou, Agnico Eagle had stated that the predictions they made seven years ago in 2014 still apply. Their conclusion was that the proposed project will result in no significant regional and cumulative effects on caribou. However, we are not convinced that this conclusion is valid based on the analysis provided so far.

Also, it is not clear how the monitoring program described in the terrestrial environment management and monitoring plan will detect regional and cumulative effects on caribou or identify what should be done to mitigate them.⁸⁰

...There's exploration going on, so even though this particular hearing is about this waterline, companies are going out and looking for deposits, whether it's gold or other things, and so I know there's a lot of exploration going on around Whale Cove, and that's -- your community has been asked for input or comments on that, and I know Kivalliq Wildlife -- or -- sorry, Kivalliq Inuit Association has had meetings, and I'll leave that for them to talk about, but there is so much work that we need to do as communities and regions...⁸¹

⁸⁰ G. Bussidor, Sayisi Dene First Nation (also presenting for Northlands Denesuline First Nation), NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 495, lines 7-15.

⁸¹ B. Dean, Nunavut Tunngavik Incorporated, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 598, lines 10-19.

...The mining companies that are coming for minerals or gas, they're disturbing our land. These lands or hunting grounds, campsites, were where our ancestors lived on, and that's why it's important for me to have everything documented...⁸²

The Board heard questions about whether Agnico Eagle's monitoring of existing effects on caribou movement linked to the existing AWAR is effectively identifying the existing impacts on caribou. This uncertainty reduced the confidence of Intervenors in Agnico Eagle's predictions that there would be no cumulative effect on caribou movement if the covered waterlines are added to the area adjacent to the AWAR.⁸³

The Board also heard from Community Representatives and Members that they were concerned that existing development projects and activity such as increased helicopter and air traffic would also combine with the waterlines along the AWAR to cumulatively affect the free movement of caribou in the local and regional study area. More detail regarding parties' comments about the potential for effects on caribou (including the potential for transboundary and cumulative effects) is described more fully in Section [4.2.7](#) (Terrestrial Wildlife). The Board notes that some Intervenors recommended that improvements to Agnico Eagle's terrestrial environment monitoring efforts are necessary to address the potential for cumulative effects:

Potential effects contributed by this project should be assessed as a part of the regional and range-wide cumulative effects assessment plan...

...additional actions are needed to monitor and minimize project effects that could change movement patterns of caribou, allow caribou to drink saline effluent, and contribute to regional and cumulative effects of development on caribou.⁸⁴

During the Public Hearing, several parties questioned Agnico Eagle regarding the potential for the Waterlines Proposal to have a cumulative effect on climate change.⁸⁵ These submissions are discussed in more detail in Section [4.2.2](#) (Climate Change).

Several Intervenors and Community Representatives also identified concerns about the potential for the increased volume of, and quality of water discharged into the marine environment to have cumulative effects on marine mammals, fish and marine habitats throughout the Kivalliq

⁸² J. Nakoolak, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 613-614, lines 25-26 and 1-3.

⁸³ See for example the discussion of this issue by K. Poole, Kivalliq Inuit Association, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 13, 2021 at pp. 209-210.

⁸⁴ G. Bussidor, Sayisi Dene First Nation (also presenting for Northlands Denesuline First Nation), NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 497, lines 6-14.

⁸⁵ S. Nipisar, Arviat, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 540-541

communities.⁸⁶ The discussion of the issues raised by Intervenors, Community Representatives and interested members of the public with respect to the potential for effects on marine sediment, marine water quality, and marine wildlife is provided in Sections [4.2.8](#), [4.2.9](#) and [4.2.10](#) respectively.

4.6.5 Human Health Assessment

Concerns surrounding risks to human health were discussed throughout the assessment of the Waterlines Proposal. During the Information Request stage of the assessment, HC requested that a Human Health Risk Assessment be completed, and in their final written submissions, HC indicated additional information was required to complete their review of the assessment. At the Public Hearing, HC noted within its presentation that the additional information was provided, and through meetings with representatives of the KWB and Rankin Inlet community members, Agnico Eagle was able to provide information to confirm that community shellfish harvesting locations appeared to be outside of the area affected by the diffuser. The additional information also conveyed Agnico Eagle's plans to verify water quality and the conclusions of the Human Health Risk Assessment through the Ocean Discharge Monitoring Plan and a community-based shellfish monitoring program. With this additional evidence, HC considered its technical review comments to be resolved.⁸⁷

As described in Section [4.2.9](#), discharges into Melvin Bay would be required to comply with the *MDMER* regulations to ensure that the water is not acutely toxic to aquatic life. In response to concerns of the KWB and issues raised by ECCC, Agnico Eagle has also committed to conducting sublethal toxicity testing to better assess the potential for sublethal effects.

As mentioned above, Agnico Eagle proposed to conduct a community-based shellfish monitoring program. The purpose of the program would be to document current conditions of shellfish in areas where shellfish are typically collected by the Rankin Inlet community members. Agnico Eagle highlighted in its presentation during the Public Hearing that the shellfish monitoring program would be developed through consultation with community members:

Results of those studies show that the effect are minimal, and the water will still be safe for the mussels, the shellfish, the fish, and the marine mammals.

A community-based monitoring program will be conducted to confirm those results. We want to work with the community to understand how we develop this program. We have question to ask to the community: Where monitoring should be conducted? Which time of the year monitoring should be completed? Which species

⁸⁶ See for example the statement of L. Mimialik, Chesterfield Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 549.

⁸⁷ J. Kaushansky, Health Canada, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at pp. 388-390.

*should we sample? We committed to work with the Kivalliq Wildlife Board to complete this program and rely on their collaboration to complete this program successfully.*⁸⁸

In relation to the community-based monitoring program, concern was expressed at the Public Hearing from KWB that this program has yet to be outlined and funding not provided: “...it seems a little bit backwards, in my opinion, and a lot of these concerns that come from the communities are being deferred to a community-based monitoring program that has not been developed yet.”⁸⁹

The Kangiqliniq HTO also noted that there was a lack of clarity on what steps would be taken if an impact was captured that was not predicted in the community-based monitoring program. In response, Agnico Eagle noted that:

*As we stated, we feel confident that with this application, there's no effect with existing conditions. However, based on the community-based monitoring, if we see there's an effect that's related or unrelated to our -- our -- our discharge, we feel very confident that there is no effect with our application, but I think it's important that other parties are aware of that, so maybe the Government of Nunavut would have to get involved with that and also possibly Health Canada, especially if we see things that are outside of what our application is. Maybe something historical before Agnico's time and things like that.*⁹⁰

4.6.6 Proponent’s Response to Parties’ Final Written Submissions in Respect of Other Issues Considered by the Board

Following receipt of parties’ final written submissions, Agnico Eagle provided its response to the comments received on May 17, 2021. For convenience, [Table 14: Summary of Comments Received from Parties](#) in Respect to Other Issues Considered by the Board provides a summary of Agnico Eagle’s response submission addressing comments about other issues considered by the Board.

Table 15: Summary of Agnico Eagle Responses to Comments About Other Issues Considered by the Board

Party	Agnico Eagle Response Summary
KIA	<ul style="list-style-type: none"> ▪ Highlighted that the primary purpose of the waterline is to discharge saline water to the marine environment with the intent to reduce stored inventory; ▪ Cannot commit to using at least 50% of the waterline for surface contact water but would minimize discharges to Meliadine Lake; and

⁸⁸ M. Groleau, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 516-517, lines 25-26 and 1-8.

⁸⁹ C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at p. 359, lines 13-17.

⁹⁰ J. Quesnel, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 166, lines 8-20.

Party	Agnico Eagle Response Summary
	<ul style="list-style-type: none"> ▪ Completed modelling with low salinity for surface contact water discharge scenario and no impact is expected, as well discharge would meet the Federal Metal and Diamond Mining Effluent Regulations
KWB	<ul style="list-style-type: none"> ▪ Highlighted that the Project Proposal included design features to minimize the potential for spills; and ▪ Noted that additional analysis was completed for the potential effect to surface water if a spill were to occur at specific watercourse crossings identified by KWB.
HC	<p>There is no pathway for a risk to human health:</p> <ul style="list-style-type: none"> ▪ No harvesting in the area; ▪ Discharge quality meets regulations and does not bioaccumulate; and ▪ Committed to a community-based shellfish monitoring program
Kangiqliniq HTO	<ul style="list-style-type: none"> ▪ The waterline cover has a designed side slope or 1:3 ▪ A spill mitigation and management plan would be put in place for the waterline and can be further discussed with the TAG
SDFN and NDFN	<ul style="list-style-type: none"> ▪ Agreed to create a new management plan or amend an existing management plan for the operation of the waterline with a decision framework for operation during caribou migration; ▪ Agreed to provide an annual report to the NIRB that outlines the operation, maintenance, and monitoring of the waterline, including the leak detection system; and ▪ Agreed on the term and condition related to the operation, maintenance and monitoring of the waterline.

4.6.7 Recommended Mitigation Measures in Respect of Other Issues Considered by the Board

To prevent, mitigate and monitor for effects associated with the Waterlines Proposal, Agnico Eagle is required to continue complying with the mitigation measures within the management and monitoring plans in effect for the approved Meliadine Gold Mine Project, including updates specific to the Waterlines Proposal. Agnico Eagle would also be expected to meet all the commitments the Proponent agreed to throughout the assessment process, including through community consultation, at the Technical Meeting (January 11-13, 2021), at the Community Roundtable and Pre-hearing Conference (February 11 and 12, 2021), in its responses to Intervenors' final written submissions, and at the Public Hearing.⁹¹

⁹¹ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

5 Summary of Conclusions and Recommendations of the Board

5.1 Ecosystemic Effects

5.1.1 Views of the Board

5.1.1.1 Air Quality, Climate Change, and Noise and Vibration

Agnico Eagle has predicted that the change in conveyance of saline effluent from trucking to waterlines as proposed in the Waterlines Proposal would lead to a decrease in dust along the all-weather access road (AWAR) and bypass road and a reduction in project-related emissions and noise. In the Board's assessment, the Board heard from Community Representatives that a reduction in dust emissions will be considered to be a very positive impact of the proposed project activities. In addition, some Community Representatives, particularly youth representatives, indicated that climate change (reductions in greenhouse gas emissions) and air quality are important factors that should be considered in the assessment of the Waterlines Proposal and the Meliadine Gold Mine Project. The Board recognizes that there are existing monitoring plans, such as the Air Quality Monitoring Plan, Noise Abatement and Monitoring Plan, and Environment and Climate Change Canada's Greenhouse Gas Emissions Reporting Program that will be sufficient for capturing or recording whether the predicted positive impacts from the change in project activities occurs. The Board encourages Agnico Eagle to continue monitoring and reporting within the annual report to demonstrate whether these predicted positive impacts transpire and to what degree.

The Board is satisfied that the proposed mitigation measures for the installation of the waterlines, as expressed by Agnico Eagle throughout the assessment and currently in use at the Meliadine Gold Mine Project will be sufficient to limit dust and greenhouse gas emissions during installation. The Board also recognizes that the temporary nature of these activities during installation limits the potential for significant impacts to result during this period. However, the Board notes that due to the installation of part of the subsea pipeline through horizontal directional drilling, that there may be a temporary increase in noise and vibration to the marine environment during drilling. To ensure that these measures are protective, the Proponent is expected to monitor for potential noise and vibration effects during the horizontal directional drilling into Melvin Bay, during the installation of the subsea pipeline and associated diffuser, and periodically during the operation of the waterlines.

5.1.1.2 Freshwater Quality, and Fish and Fish Habitat

The Board understands that DFO does not have any concerns regarding the impact to freshwater and fish and fish habitat from the installation of the waterlines. The Board considers that the proposed mitigation measures and existing mitigation and monitoring plans governing the Meliadine Gold Mine Project will be protective of fish passage and will prevent sedimentation and erosion of freshwater bodies. Additionally, the Board expects that water quality monitoring and

mitigation measures will be further defined in the licensing and permitting stages associated with the Waterlines Proposal and that any additional monitoring and mitigation measures will feed back into Agnico Eagle's monitoring and management plans, which would be updated to reflect any additional requirements as appropriate.

The Board also recognizes that validation of the proposed spill prevention and management activities remains necessary to ensure that the freshwater environment is protected from accidental leaks and spills into freshwater environments. The Board's views on spills and leaks from the waterlines are more directly addressed Section [5.3.1.2 Accidents and Malfunctions](#).

5.1.1.3 Soil Quality and Terrain (including Permafrost)

The Board is satisfied with the proposed environmental design and mitigation measures identified by Agnico Eagle for minimizing the impacts to landforms and permafrost. As the Board did within the original Meliadine Gold Mine Project assessment, the Board emphasizes the importance of Agnico Eagle's familiarity with the site-specific conditions of the local study area in ensuring the health of sensitive northern ecosystems. It is critical to ensure that the proposed measures are, and will continue to be, effective in achieving the desired objectives and adequately address concerns related to permafrost, and that these are monitored and reported on at regular intervals.

5.1.1.4 Terrestrial Wildlife

One of the most predominant concerns expressed by Community Representatives, Intervenors, and members of the public throughout the assessment was the potential for the proposed activities to have effects on terrestrial wildlife, specifically caribou. The NIRB recognizes that the Qamanirjuaq caribou are not only important to the natural ecosystem of Nunavut but are also intrinsically linked to the culture, identity, and livelihood of Inuit, Nunavummiut, and Indigenous groups within the range of this herd. The Board appreciates the vast degree of Inuit Qaujimajatuqangit, Traditional and Community Knowledge, and scientific expertise that was provided on this topic throughout the assessment of the Waterlines Proposal. The Board also notes that Agnico Eagle modified its project design after consulting with community members of Rankin Inlet and listening to their concerns about the barrier to caribou movement that the waterlines could pose if not covered. Agnico Eagle responded by proposing to cover 80 to 90 % of the waterlines so as to improve the ability of caribou to cross the waterlines.

However, the Board heard that there appears to be a significant uncertainty regarding the extent to which existing caribou management, mitigation, and monitoring measures are sufficient to identify potential impacts on caribou resulting from the Awar and the installation and operation of the waterlines in combination. In addition, the Board found it difficult to understand how Agnico Eagle has relied on Inuit Qaujimajatuqangit to inform the updates to caribou impact mitigation and monitoring as set out in the Terrestrial Environmental Management and Monitoring Plan (TEMMP). More information on the Board views of the meaningful consideration of Inuit Qaujimajatuqangit are found in Section [5.2.1.3](#).

Within its IS Addendum Agnico Eagle predicted that with the implementation of the TEMMP, the proposed activities would not result in significant adverse impacts that would influence the abundance and distribution of caribou populations. However, the Board heard from Community Representatives and Intervenors that uncertainty remained regarding the impacts to caribou from the existing AWAR and ultimately how the impact of additional infrastructure (the waterlines) paralleling this road may affect caribou movement and interaction with this structure.

The Board recognizes that improved understanding about caribou interactions with the AWAR is ultimately greater than the scope of the Waterlines Proposal and is the focus of monitoring of the previously-approved Meliadine Gold Mine Project. However, in the Waterlines Proposal assessment, parties sought a commitment to revise the Collared Caribou Memo with an updated study area and definition of caribou “deflection” that takes into account caribou paralleling or adjusting their course from the road at any angle. The Board additionally questioned whether different language might better capture caribou behaviour in relation to the AWAR:

When we -- in English when you usually use the word "deflection", you think about an object like a ball, and you bounce a ball -- or light, and light bounces off a wall. So it's an inanimate object. But what we heard from the Elders this week, they have said many times that caribou are conscious -- animals are conscious. They're conscious beings, so they -- they make a choice not to cross the road. It's not that they bounce off the road, they make a choice not to cross the road, or they make a choice to flee from the road.

If the disagreement in categorizing or labelling caribou avoidance behaviour with the road relates to whether they leave the road or parallel their movement along the road, have the parties considered using language that appreciates the fact that caribou decide to flee the road or not cross it by moving along it or avoiding crossing the road and congregating? Like, caribou avoidance by fleeing; caribou avoidance by delaying crossing; or caribou avoidance by congregating without crossing? So there's different ways that have been described caribou move. Has consideration given to using different language around caribou behaviour in relation to the road?⁹²

In relation to the monitoring of impacts, the Board heard that there remained uncertainty as to how monitoring would be used to capture impacts to caribou both on the local and regional levels. A Rankin Inlet Elder commented on how changes to caribou migration are already being felt:

⁹² K. Kaluraq, NIRB Chairperson, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 4, June 17, 2021 at pp. 653-654, lines 16-26 and 1-13.

...we heard from Clayton Tartak from the wildlife, and his document -- it says that communities have noticed changes in migration since the all-weather access road was built in 2012. Yeah, that is true. That's very true because even I've noticed going back maybe three or four years where the caribou migration have drastically changed their route. Last year they couldn't even -- they couldn't even cross down the narrows where they held the road to the water pump over at the east again.

And we usually see them go across that narrows through the water and bed down on -- on the land there. And then once they bed down, they climb up -- they go further and further, and there's thousands of them that usually go there.

But last year, for some reason, they wouldn't cross. They tried and tried. No. It failed. So we watched them go back, and then they rerouted to -- to -- towards Chesterfield Inlet.⁹³

In this respect, the NIRB Staff questioned the Proponent about how monitoring data and observations feed back into the management, mitigation and monitoring conducted by Agnico Eagle, asking: “...how has Agnico Eagle used the data and observations from the caribou behaviour study, the camera study, the caribou collar data, and the hunter harvest survey in planning for the 2021 monitoring year?”⁹⁴

In response, Agnico Eagle noted that all of the listed monitoring programs are used to:

- inform where caribou are in relation to the Meliadine mine site;
- collect information on caribou numbers and direction of travel;
- determine how and where caribou interact with the road and mine infrastructure; and
- determine how caribou respond to other stressors on the AWAR.

In the Board’s view, revisiting Agnico Eagle’s original assessment of potential impacts of the AWAR to caribou is crucial to understanding the impacts of the proposed project activities under the Waterlines Proposal in combination with the existing project activities. Noting that without sufficient background data, analysis on any adverse impacts from increased linear infrastructure along the AWAR or positive impacts from the decrease in trucking cannot be reliably predicted and/or monitored. Also, recognizing that Agnico Eagle has committed to working with parties to revise the previous predictions of the potential for the AWAR to have effects on caribou, the Board looks forward to receiving an update in Agnico Eagle’s annual report. The Board also highlights

⁹³ L. Brown, Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 575-576, lines 14-26 and 1-6.

⁹⁴ K. Costello, NIRB staff, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 187, lines 2-5.

the importance of Agnico Eagle considering and meaningfully incorporating Inuit Qaujimajatuqangit, Traditional, Community and Indigenous Knowledge into its updated predictions, to better understand the living nature of caribou and how their behaviour may be impacted by the installation and operation of the waterlines system infrastructure.

The Board emphasizes the importance of a comprehensive and rigorous monitoring program that is sufficient to capture any impact from the change in conveyance of saline effluent from trucking to waterlines. Through monitoring, the Proponent is expected to validate the predictions of impacts made in the IS Addendum, and the validated predictions should also be considered by Agnico Eagle in the updated the Caribou Collar Memo. In the Board's view, this update to the baseline assumptions underlying monitoring of caribou interactions with the AWAR in advance of the installation of the waterlines should greatly reduce uncertainty and provide a baseline from which to identify trends and thresholds before potential effects associated with the Waterlines Proposal are identified. Working from an updated baseline better positions Agnico Eagle to identify whether the predicted positive impacts of the waterlines do occur and are maintained through the construction, operation and closure of this component.

As outlined in Section [4.2.7](#), the update and design of several key monitoring and mitigation measures brought forward by parties during the assessment in respect of the potential effects on caribou, are contingent upon the successful establishment of the Terrestrial Advisory Group (TAG). Specifically, parties' requests to update methods and interpretation of caribou monitoring studies looking at caribou collar, camera and behaviour data, as well as data from the current AWAR, will support a more comprehensive understanding of how the change in activity to transport by waterlines along the AWAR may affect caribou. These updates will also contribute to the monitoring of potential cumulative and regional effects on the Qamanirjuaq caribou herd.

The Board understands that the TAG is expected to provide a forum for Intervenors and the Proponent to work in a collaborative manner to adaptively update monitoring and management strategies. The TAG would ideally consist of all interested parties that could provide expertise on topics within the terrestrial environment and provide Inuit Qaujimajatuqangit, Traditional Community, and Indigenous Knowledge to inform monitoring and mitigation decisions made within the TEMMP. However, the Board recognizes that the effectiveness of the TAG is contingent upon cooperation, communication, and the ability to meaningfully function as an advisory group.

The Board questioned the Hunters and Trappers Organizations on whether there was support in the establishment of a TAG,⁹⁵ and it was noted that the TAG's effectiveness is also contingent upon the capacity of community-based organizations to actively participate, which is further discussed in Section [7.1](#).

⁹⁵ See the exchange between K. Kaluraq, NIRB Chairperson and the Kivalliq Hunters and Trappers Organizations, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp. 482-484.

5.1.1.5 Marine Sediment

In Agnico Eagle’s 2018 “Saline Effluent Discharge to Marine Environment” Proposal, community members expressed concerns about the potential for ice scour to damage the subsea pipeline. The Board appreciates Agnico Eagle’s consideration of these concerns in the current assessment and choice to construct this pipe through horizontal directional drilling, similar to the sewage discharge pipeline in Rankin Inlet, thereby eliminating the risk from ice scour and tides, and also reducing any impacts to erosion of the seabed.

As stated in Agnico Eagle’s Impact Statement (IS) Addendum, the Board understands that the current subsea pipeline, diffuser, and associated infrastructure would remain in use until the commissioning of the new diffuser. As stated within amended Project Certificate 006, Term and Condition 130, Agnico Eagle shall remove the pipeline and diffuser used for the discharge of trucked saline effluent, unless it can be demonstrated to the satisfaction of the Nunavut Impact Review Board that this infrastructure will provide a net positive environmental effect to the local ecosystem. As Agnico Eagle noted to Transport Canada within its response to information requests, Agnico Eagle does not intend to leave the existing marine pipeline and installation in place upon commissioning of the new waterlines. Consequently, the Board expects to see an application for removal of the existing subsea pipeline and diffuser for consideration at least 12 month prior to planned removal as further detailed in Term and Condition 130.

The Board also requested detail on the reclamation and closure of the new pipeline and diffuser:

The question I have is in regards to the waterline. After -- after the closure when everything else is taken out, what will become of that waterline? Will it remain in place, or will it be removed? I raise that question because in our waters in the Arctic, people are noticing there are plastics that are eaten by marine mammals, and that's becoming a concern to, you know, our -- sometimes our daily food such as seals and fish, and, over time, that plastic will break down eventually and impact the marine sea life.⁹⁶

Agnico Eagle responded that as part of the Interim Closure and Reclamation Plan, the waterlines would be removed, including the diffuser in Melvin Bay. However, evaluations would need to be completed at that time to ensure that the removal of this infrastructure, when it is no longer used, does not create an impact.

⁹⁶ P. Kadlun, NIRB Board Member, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 98, lines 15-24.

5.1.1.6 Marine Water Quality

Throughout the assessment, concern was expressed by members of the public, Community Representatives, and Intervenors regarding the impacts to water quality from the discharge of saline effluent into the marine environment. The Board recognizes that Agnico Eagle is currently discharging saline effluent into Melvin Bay at a rate of 800 m³/day (with a temporary increase to 1,600 m³/day as part of the 2020 Saline Discharge Strategy outlined in Section [1.4](#)); however, the volumes for the current Project Proposal will be increasing by 15 to 25 times the volume that is currently being discharged. With this volume increase Agnico Eagle has predicted that changes to the marine environment will be limited to the 100 m mixing zone and has indicated that Melvin Bay will be sufficiently flushed at the end of each discharge season. The Board notes that Agnico Eagle is required to ensure that the saline water discharged meets the water quality criteria for acute toxicity and deleterious substances set out in the *MDMER*.

It is the Board's view that monitoring of ocean discharge should be required to demonstrate that the effluent quality is as predicted and that the diffuser and discharge system are functioning as anticipated. In relation to this requirement, the Board appreciates that the Ocean Discharge Monitoring Plan, which is already established by the Proponent for water quality testing in the receiving environment and the commitment to KIA to test water quality after the discharge season for the sufficient flushing of Melvin Bay for the first three (3) years of discharge. In the Board's view, reporting of these monitoring results annually within Agnico Eagle's annual report to the NIRB will provide sufficient information for parties to ensure validity of water quality predictions.

With the significant increase in the volume of saline effluent inflows that require discharge into the marine environment since Agnico Eagle's 2018 "Saline Effluent Discharge to Marine Environment" Project Proposal, the Board also heard questions from the Kangiqliniq HTO as to why the waterlines were not proposed as an alternative in 2018. CIRNAC also expressed concern in the technical review process as to why there was such a significant increase in the volume of water that Agnico Eagle now predicts will require discharge to the marine environment. The Board understands that as the Meliadine Gold Mine Project continues through operations, Agnico Eagle is monitoring groundwater inflows and comparing the predictions made in the original FEIS and 2018 IS Addendum with the actual site conditions. Although the Board recognizes that the actual results may vary considerably from modelling conducted before construction and predictions made in the original assessment, the Board stresses the importance of monitoring and reporting back to the Board where significant discrepancies are identified and where adaptive management has had to occur to manage the discrepancy.

For discussion on the Board views of the impact of water quality on marine wildlife, see Section [5.1.1.7](#) Marine Wildlife.

5.1.1.7 Marine Wildlife

During the public consultations conducted by the NIRB, community members expressed concern about the potential for the increased discharges to affect the health of the marine ecosystems and stressed the importance of maintaining the health of marine species including fish, seals, and whales. The Board understands that the saline effluent discharged into Melvin Bay is required to be compliant to *Metal and Diamond Mining Effluent Regulations*, SOR/2002-222 (MDMER) standards; however, as highlighted by the KWB and ECCC, these regulations require only testing of substances to ensure the effluent is not acutely toxic to marine species. With the application for increased volume of discharge for the life of mine, although substances within the saline effluent are not expected to bioaccumulate, the Board recognizes the importance of ensuring that that sublethal effects do not impact marine wildlife.

The Board also had questions about the response of regulators should an impact to marine species be detected:

As a regulatory agency, what procedures would you have if you find that -- that release of the saline into the -- effluent into the oceans for some unknown reason is -- is affecting sea mammals and fish?

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In response, DFO noted that the water quality from the discharge of effluent would fall under the mandate of ECCC; however, fish and fish habitat falls under the jurisdiction of DFO, and that Agnico Eagle is required to identify effects on fish, marine mammals, and fish habitat:

*In the event that fish and marine mammals were to be affected by this effluent in terms of death or not coming back into the area but mainly the death and of fish and fish habitat, Agnico Eagle Mines has a duty to notify Fisheries and Oceans Canada that at that moment we would go and inspect the surrounding area.*⁹⁸

The Board recognizes that within Agnico Eagle's existing Ocean Discharge Monitoring Plan, Agnico Eagle also monitors water quality to ensure protection of marine aquatic life in compliance with the *Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Marine Aquatic Life*⁹⁹ and British Columbia Ministry of Environment (BCMOE) Approved Water Quality Guidelines for Marine Aquatic Life¹⁰⁰ as committed to during Agnico Eagle's 2018 "Saline Effluent Discharge to Marine Environment" Project Proposal. The Board

⁹⁷ A. Maghagak, NIRB Board Member, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at p. 373, lines 6-10.

⁹⁸ E. Ratajczyk, Fisheries and Oceans Canada, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at p. 374, lines 9-16.

⁹⁹ CCME. 2003. *Canadian Environmental Quality Guidelines – Water Quality Guidelines for the Protection of Aquatic Life*.

¹⁰⁰ BC MOE (British Columbia Ministry of the Environment). 2017a. *Approved Water Quality Guidelines: Aquatic Life*, Wildlife & Agriculture. BC MOE. 2017b. *Working Water Quality Guidelines for Marine Aquatic Life*.

further recognizes the commitments Agnico Eagle has made to ECCC to complete a benthic invertebrate study if the plume delineation study (to be undertaken in the first season of discharging from the waterlines) shows that saline effluent is measured at more than 1% at the edge of the 100 m mixing zone. Agnico Eagle also committed to ECCC, that sublethal toxicity testing will also be added to the Ocean Discharge Monitoring Program. The Board expects that water quality monitoring and monitoring of sublethal effects will be further defined in the licensing and permitting stages of the Waterlines Proposal, and these additional regulatory requirements may result in updates to the current Ocean Discharge Monitoring Plan to reflect the addition of the waterlines and the significant increase to the volumes of saline effluent and addition of surface contact water that will be discharged into the marine environment.

The Board notes that Agnico Eagle has also committed to establishing a community-based shellfish monitoring program. This program was committed to be carried out in the areas where community members of Rankin Inlet harvest shellfish, as identified by the KWB¹⁰¹. As these areas are outside of the predicted range where project impacts may occur, the Board defers to Agnico Eagle to determine how the shellfish monitoring program will inform the marine environment monitoring program and looks forward to receiving updates about this additional monitoring in Agnico Eagle's Annual Report.

5.1.2 Conclusions and Recommendations of the Board in Respect of Ecosystemic Effects

In considering the views of the Proponent, the Intervenors, Community Representatives, and interested members of the public throughout the assessment of the Waterlines Proposal and as outlined above, the Board has concluded that the potential impacts resulting from the Waterlines Proposal on the ecosystemic environment can be appropriately managed through:

- the commitments provided by the Proponent;¹⁰²
- the application of key mitigation and monitoring measures under the existing Project Certificate No. 006, Amendment 1;
- the application of revised or additional terms and conditions to the exiting Project Certificate No. 006, Amendment 1 that the Board has recommended, as set out in Section [8.3](#); and
- the subsequent completion of the licensing and permitting processes applicable to the waterlines and discharge infrastructure.

The Board is confident that the above requirements represent comprehensive measures to prevent, manage, mitigate, and monitor the potential for project effects to Valued Ecosystemic Components (VECs).

¹⁰¹ Agnico Eagle Mine Limited (May 17, 2021). *Waterline FEIS Addendum – Meliadine Mine Final Written Submission Responses, Attachment 1*, Public Registry ID No.: 335344.

¹⁰² Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

In recognition that concerns about impacts to caribou and terrestrial wildlife monitoring were deferred to be a priority of the Terrestrial Advisory Group (TAG), the Board has recommended new Term and Condition No.132 to require the establishment of the TAG. The objective of this term and condition is to integrate the expertise of parties on terrestrial wildlife and collection of Inuit Qaujimajatuqangit and Traditional and Community Knowledge to inform mitigation and monitoring strategies of project-related impacts. In particular, the Board expects the TAG to play a central role in the monitoring of caribou behaviour and interaction with the AWAR, waterlines and associated activities, as well as cumulative and regional impacts to caribou. The improvement of these mitigation and monitoring strategies as advised by TAG members would also feed into updates to the TEMMP. However, as the Board heard that there may be funding or other resource limitations that affect the full participation of the other members of the TAG, if Agnico Eagle is not able to establish a functional and productive TAG, the Proponent remains responsible to advise the Board and to provide the Board with an update regarding other mechanisms that Agnico Eagle proposes to meet the objective of this Term and Condition to ensure compliance.

In developing the wording for the new term and condition, the Board acknowledges the input provided by the parties during the assessment, and the Board has, for the most part, based new Term and Condition No. 132 on the wording provided by the parties.

With respect to the marine components of the activities under the Waterlines Proposal, in addition to the compliance with existing and revised terms and conditions of Project Certificate No. 006, Amendment 1, the Board has also recommended a new Term and Condition No. 133 to update existing project monitoring to reflect the significant increase in the volumes of saline effluent and surface contact water to be discharged to the marine environment via the waterlines, potential impacts from noise and vibration from installation of the subsea pipeline by horizontal directional drilling, and the need to further understand the sublethal impacts from the increase in saline effluent discharge. Therefore, the Board has proposed new Term and Condition No. 133 and revisions to existing terms and conditions to ensure sufficient monitoring of any impacts to the marine environment from the installation of the subsea pipeline and discharge of increased saline effluent and surface contact water into the marine environment.

With regards to closure and reclamation of the marine infrastructure components, the Board understands that, as stated in the Impact Statement Addendum, installation of the subsea pipeline through horizontal directional drilling means that it will be impractical for Agnico Eagle to remove this section of the waterlines system infrastructure at the end of life. Therefore, Agnico Eagle shall utilize best practices for closure and reclamation of the underground portion of the subsea pipeline and provide a more detailed update for review by parties and the NIRB within the next version of the Interim Closure and Reclamation Plan. For the diffuser and above ground portions of the subsea pipeline, the Board notes that, as with the existing subsea pipeline and diffuser, there is not enough evidence to warrant a net positive impact from the abandonment of the infrastructure in place. Consequently, at the time of decommissioning of this infrastructure, if at the time of decommissioning of the waterlines Agnico Eagle does not wish to remove the subsea pipeline and

diffuser, Agnico Eagle will continue to be required to demonstrate to the NIRB that leaving the infrastructure in place is preferable to removal of the above ground subsea pipeline and diffuser. As presented in Section [8.3.5.1](#), revisions to Term and Condition Nos. 128 and 130 (issued under Amendment 1 to Project Certificate No. 006) reflect these requirements as updated to reflect the Waterlines Proposal.

The Board has also recommended revisions to existing Term and Condition No. 25 so that Agnico Eagle is required to update its projections of groundwater inflow into the mine works when there are significant discrepancies between actual inflow rates when compared to the rates predicted. During the Board's previous assessment of the 2018 Saline Effluent Discharge Proposal, Crown-Indigenous Relations and Northern Affairs Canada noted its concerns about uncertainty in relation to the projected inflow rates, and the recommended revisions to Term and Condition No. 25 was previously amended as a result.

In the Board's notification to the Minister that an amendment to the terms and conditions of the Project Certificate No 006, the Board specifically referenced that the Waterlines Proposal warranted reconsideration of at least three (3) existing terms and conditions of Project Certificate No. 006, Amendment 1: Nos. 43, 44, and 54. The Responsible Minister acknowledged the reference but noted that changes may also be required to other terms and conditions in the Project Certificate if the Board considered it necessary. As detailed in Section [8.3.2](#) the Board has reviewed and recommends revisions to the following terms and conditions to manage, mitigate and monitor the potential for ecosystemic effects:

- 25
- 44
- 53
- 54
- 57
- 128
- 130

The following new terms and conditions are recommended to address the potential for ecosystemic effects:

- new 132
- new 133

5.2 Socio-Economic Effects

5.2.1 Views of the Board

5.2.1.1 Heritage Resources and Employment

Heritage Resources and Employment were two (2) Valued Socio-Economic Components (VSECs) discussed at the Public Hearing, with comments noted throughout all of the NIRB's public consultations associated with the Waterlines Proposal. For these two (2) VSECs specifically, based on all the information provided and concerns expressed by Community Representatives, Intervenors, and the Proponent, the Board is satisfied that the continued implementation of Agnico Eagle's existing impact management, mitigation and monitoring programs will limit the potential for the Waterlines Proposal to result in significant impacts.

In respect of Heritage Resources, the Board is satisfied that Agnico Eagle's continued compliance with applicable regulations and policies of the Government of Nunavut-Culture and Heritage and following the plans already in place for the Meliadine Gold Mine Project will be sufficient to protect heritage resources. Agnico Eagle's practices such as continuing to avoid documented sites within the local study area by 30 m and/or continuing to involve community in identifying locations to be investigated (if not already known) and applying mitigations as necessary will be applied the waterlines system infrastructure.

The Board recognizes that Agnico Eagle continues to experience challenges with achieving desired levels of Inuit representation in the workforce in its Kivalliq region projects, including the Meliadine Gold Mine Project, and that the COVID-19 pandemic has magnified these difficulties. More specifically, during the Board's assessment of the Waterlines Proposal, the IS Addendum and Agnico Eagle's presentation at the Public Hearing acknowledged that there would be fewer trucking jobs when the waterlines become operational. However, Agnico Eagle also stated that it would be identifying a local contractor with capacity to meet labour force demand and will adhere to the existing plans and Inuit employment targets set out in Inuit Impact Benefit Agreement. Agnico Eagle also stated a target of 30% Inuit employment for the proposed activities and also confirmed that once the waterlines are operational, and trucking of saline effluent has ceased, Agnico Eagle will ensure that there is no net loss to Inuit employment resulting from the reduction in trucking:

...if the waterline is approved, there will be approximately 35 direct or indirect workers on that project. The plan is to have between 10 and 14 Inuit workers if the waterline is approved to build the project. We plan on having helpers and welders for that project. Once the line is in operation, the amount of employment

opportunities will remain the same as when there were workers driving waters to the sea.¹⁰³

5.2.1.2 Traditional Land and Resources Use

For this VSEC the Board heard numerous statements from communities that emphasized the importance of having access to the land and being able to gather country food and enjoy the area. The Board recognizes that Agnico Eagle has demonstrated flexibility in adapting the original project design to change plans from having dedicated crossings for caribou and all-terrain vehicles and snowmobiles to committing to cover 80-90% of the length of the waterlines with sand and esker material to allow crossing for better caribou and traditional land users' crossings.

It will be important to ensure that caribou and land users maintain access to the land surrounding the Meliadine Gold Mine site and carefully monitor the extent to which caribou and land users are able to cross the AWAR and the area adjacent to the AWAR where the waterlines have been installed. The Board notes that the participation of the land users on the TAG will be a source of important knowledge and information to assist Agnico Eagle to gauge whether there are issues with these proposed mitigation measures and to inquire whether land users are satisfied/dissatisfied with the access provided. Agnico Eagle has proposed to also continue consulting Elders and other interested community members regarding the success of the waterlines cover strategy. The NIRB encourages Agnico Eagle to ensure that these discussions continue over the life of the waterlines and that it will be important to ensure that caribou and land users maintain access to the land surrounding the Meliadine Gold Mine site and carefully monitor the extent to which caribou and land users are able to cross the AWAR.

5.2.1.3 Inuit Qaujimajatuqangit

Inuit Qaujimajatuqangit was central to the Board's recommendations for revisions to monitoring to reflect the Waterlines Proposal. The Board heard comments from Community Representatives at the Public Hearing about the importance of communication, respect, opportunities for discussion, and incorporation of Inuit Qaujimaningit and Inuit Qaujimajatuqangit. Specifically, the Board heard Community Representatives comment at the Public Hearing that it was unclear to them as to how Inuit Qaujimajatuqangit was incorporated into Agnico Eagle's assessment of the Waterlines Proposal.

As noted above, the Board recognizes that some modifications to the original Waterlines Proposal occurred in response to community concern and Inuit Qaujimajatuqangit (e.g., covering the waterlines and the alternative of using the waterlines to limit surface contact water being discharged into Meliadine Lake). However, the Board is also encouraging Agnico Eagle to apply Inuit Qaujimajatuqangit and any lessons learned related to future operations, the development of the Meliadine Gold Mine and any future modifications of the previously approved project going

¹⁰³ S. Leclair, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.539, lines 12-20.

forward. The Board has noticed since the mine was approved in 2015 that interested members of the public have increased their understanding of mining and are curious about what Agnico Eagle is doing throughout the Kivalliq region and at the Meliadine Mine site specifically. Clear and transparent communication is foremost to maintaining relationships and allowing opportunities for discussion on an on-going basis remains very important.

The Board expects Agnico Eagle to continue discussions with communities and the TAG and to demonstrate Inuit Qaujimagatuqangit and Traditional and Community Knowledge has been incorporated. Agnico Eagle is also expected to advise the Board about the opportunities Agnico Eagle has pursued to discuss items and collect this type of knowledge to inform the design and implementation of the project and relevant management, mitigation, and monitoring measures. Agnico Eagle is expected to have systems in place to collect, compile, and confirm this type of knowledge through either a report or additional meetings. Agnico Eagle should also provide opportunities to discuss with knowledge holders how each of the items was clearly included in project design or planning. This clear communication chain of collection, repeat back, and report back should become a part of Agnico Eagle's annual reporting and monitoring to ensure that discussions are regular and that communities remain informed. In the Board's view, maintaining clear communication about knowledge shared with Agnico Eagle that involves concerns about effects on traditional harvesting and accessibility of country food is vital to communities as these activities are central to maintaining culture, supporting food security, and greatly impact community and individual health and wellness.

The Board highlights that it is not only the Proponent, but also governments and other organizations conducting research that would benefit from consultation with local knowledge holders such as communities, Hunters and Trappers Organizations (HTOs), and Elders to improve local and regional monitoring initiatives. In this regard, the Board specifically questioned the Government of Nunavut (GN) regarding the extent to which community observations and qualitative data are incorporated into the GN's regional monitoring. The GN's response was as follows:

As far as qualitative data and community observations, to the best of my knowledge there are currently no programs specifically dedicated towards collecting community observation. However, every research program or monitoring program conducted by the Government of Nunavut for caribou occurs with consultation with local communities, in particular hunters and trappers organizations, at all stages of the research, including the design, the field work itself -- there is direct participation -- and in the review

*of results. And through those elements of the process, community input and observations are incorporated.*¹⁰⁴

During this assessment the Board heard that potentially affected communities want to be kept informed not only by the Proponent but by those who monitor the licences and permits that are issued for projects, and they also want to know how Inuit Qaujimagatunangit is being considered and incorporated when regulatory limits are developed and in project monitoring. In the Board's view the experiences, observations and knowledge of community members that is shared with all parties becomes particularly important when the Proponent and regulators are developing and implementing adaptive management strategies designed to address uncertainty and divergences between predicted and observed effects.

Further, the Board notes that Inuit Qaujimagatunangit is not specifically held by one (1) group or individual and is a shared knowledge that includes Inuit Traditional Knowledge and Inuit Societal Values. All participants in the Board's assessment are encouraged to pursue opportunities for this type of knowledge to be applied to their consideration of the prevention, identification, and response to project effects. Specific to this assessment, the Board has included a new Term and Condition No. 132 that requires Agnico Eagle to consider this type of knowledge through the TAG or community-based monitoring programs.

5.2.1.4 Human Health Assessment

The Board also heard that communities had concerns about whether the Waterlines Proposal could have impacts on the accessibility, harvest, and safety of country food. The Board recognizes that the human health assessment did not predict effects on these activities, but nonetheless, appreciates Agnico Eagle's commitment to carrying out the shellfish monitoring program and has recommended improvements to monitoring of potential effects in the marine environment to ensure that the predictions remain accurate.

5.2.2 Conclusions and Recommendations of the Board

In considering the views of the Proponent, the Intervenors, Community Representatives, and interested members of the public throughout the assessment of the Waterlines Proposal and as outlined above, the Board has concluded that the potential socio-economic impacts resulting from the Waterlines Proposal can be appropriately managed through:

- the commitments provided by the Proponent;¹⁰⁵
- the application of key mitigation and monitoring measures under the existing Project Certificate No. 006, Amendment 1;
- compliance with existing regulatory requirements associated with historical resources;

¹⁰⁴ S. Atkinson, Government of Nunavut, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at pp.315-316, lines 23-26 and 1-9.

¹⁰⁵ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

- the subsequent completion of the licensing and permitting processes applicable to the waterlines and discharge infrastructure; and
- compliance with the Inuit Impact Benefit Agreement (including if it is subsequently amended to reflect the Waterlines Proposal).

The Board is confident that the above requirements represent comprehensive measures to prevent, manage, mitigate, and monitor the potential for project effects to VSECs.

Further, based on comments received at the Public Hearing and as stated in the Project Certificate No. 006, Agnico Eagle is required to provide a project-specific web portal or web page as a means of making all non-confidential monitoring and reporting information associated with the Project available in one (1) location. This will ensure that interested parties and community members who live in the range of the Qamanirjuaq herd (and the herd’s habitat) remain informed about the project, and related effects, and Agnico Eagle’s adaptive management, mitigation, and monitoring efforts. Additionally, the Proponent is required to make plain-language summaries of monitoring results available in English and Inuktitut to the fullest extent possible.

5.3 Other Issues Considered by the Board

5.3.1 Views of the Board

5.3.1.1 Adaptive Management Plan

As discussed in Section [1.7.2](#), the Adaptive Management Plan filed by Agnico Eagle with the Board during the assessment has been used to inform the Board’s consideration of the Waterlines Proposal. However, the Board has not “approved” the Adaptive Management Plan, and the two (2) terms and conditions recommended by the KIA related to the Adaptive Management Plan have not been incorporated into terms and conditions. In the Board’s view the recommended terms and conditions were too prescriptive and did not provide a reasonable level of operational flexibility for Agnico Eagle to adaptively manage for considerable variation in the volumes of saline groundwater and surface contact water that may be encountered on-site. However, the Board has made a recommendation regarding revisions to Term and Condition No. 25 to reference Agnico Eagle’s submission of the Adaptive Management Plan and ensure Agnico Eagle is taking steps to address the uncertainties for groundwater forecasts which has led to the modification of the original project in 2018 and in the Waterlines Proposal. Although the Board is not “approving” the draft Adaptive Management Plan, the Board requests that Agnico Eagle continue to keep the Board informed regarding the implementation of the Plan and adaptive management measures adopted by Agnico Eagle over the course of the project.

5.3.1.2 Accidents and Malfunctions

Throughout the NIRB’s community consultation sessions, the Community Roundtable and Pre-Hearing Conference and the Public Hearing, Community Representatives and members of the public expressed concerns about spills from the waterline into the terrestrial or freshwater

environments. Similarly, Intervenor provided questions and comments on spills throughout the assessment. The Board understands that community consultation and Intervenor comments have led to the addition of spill mitigation measures including a leak detection system, updating of the Spill Contingency Plan to include the waterline and improved impacts analysis through completion of a Failure Modes Effects Analysis and additional analysis on areas of concern. Through these efforts Agnico Eagle has noted that the potential for spills has been minimized:

Through mitigation and planning, we can avoid and minimize the potential for accidents. Through this process, we have made modifications to the project design for construction and operations. Many of these we have already discussed, but some include the leak detection system, pressure testing of the line prior to initial operations, testing the line each season, regular inspections, and a mock spill event.¹⁰⁶

The Board commends the Proponent, the Intervenor, Community Representatives, and the public for providing constructive feedback and sharing knowledge in respect of this important aspect of impact mitigation, as well as the Proponent's incorporation of this information into its contingency planning. This collaboration has led to key mitigation measures being implemented in the prevention of spills and steps being outlined for spill management in the event that a spill from the waterlines does occur.

However, the Board notes that in advance of construction, testing and operation of the waterlines, some uncertainty remains regarding whether leak detection and spill mitigation measures proposed by Agnico Eagle will be effective. Within the Kangiqliq HTO's final written submissions and the KWB and Kivalliq HTOs' joint presentation the Board noted the high level of concern about the potential for spills and leaks from the waterlines to damage the land, freshwater in the area, and to have effects on terrestrial wildlife such as caribou. Communities also emphasized the importance of clear and immediate communication of spills and leaks from Agnico Eagle to the community members and community-based organizations. During the Public Hearing the Board also heard from community members questioning how this information would be accessible. The Board understands that Agnico Eagle is required to report spills to Regulatory Authorities and as part of the Meliadine Gold Mine Annual Report; however, the NIRB also encourages Agnico Eagle to enhance its communication about spills and leaks by considering the use of local social media, radio, and other more immediate forms of communication. To ensure that the potential for impacts associated with accidents and malfunctions such as spills and leaks from the waterlines system are minimized, the Board has recommended several revisions to existing terms and conditions as set out in Section [8.3.4](#). New Term and Condition No. 134 is based on recommendations provided by the Sayisi Dene First Nation and Northlands Denesuline First Nation as an Exhibit during the

¹⁰⁶ C. Prather, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p. 119, lines 3-10.

Public Hearing.¹⁰⁷ The new Term and Condition is specific to monitoring of the waterlines system, including the leak detection system, and requires Agnico Eagle to provide plain language summaries of how the waterlines system is constructed and monitored, and demonstrate that appropriate mitigation measures are initiated if waterline leaks occur.

5.3.1.3 Cumulative Effects

As outlined in Section [4.6.4](#), the Board heard that Intervenors and communities are concerned that even if the effects of the Waterlines Proposal are not significant by themselves, these effects could combine with:

- the effects of other project infrastructure such as the AWAR;
- the effects of other activities in the area, such as increased helicopter/air traffic;
- the effects of other development projects in the region; and
- climate change.

Consequently, Intervenors and communities expressed concern about the potential for this combination of effects to result in significant cumulative effects on caribou, marine wildlife, and the marine environment.

The Board has concluded that if Agnico Eagle complies with the Board's recommendations to limit the potential for effects on caribou, marine wildlife, and the marine environment,¹⁰⁸ the potential for cumulative effects will also be addressed.

5.3.1.4 Transboundary Effects

The Board acknowledges that due to uncertainty associated with the prediction of effects on caribou combined with uncertainty regarding whether Agnico Eagle's proposed mitigation measures are and will be effective, it is also unclear whether effects on caribou could ultimately result in transboundary effects. The Board recognizes the critical importance of the Qamanirjuaq caribou herd to indigenous groups in Nunavut, Manitoba, Saskatchewan, and the Northwest Territories, and as a result has adopted a precautionary approach in respect of the potential for transboundary effects on caribou. To be clear, the Board has not made a finding that transboundary effects will be associated with the Waterlines Proposal, but rather, that uncertainty exists regarding the potential for effects on caribou that could ultimately have transboundary impacts.

Consequently, the Board has accepted the recommendations of the Sayisi Dene First Nation and the Northlands Denesuline First Nation to include these transboundary groups on the Terrestrial Advisory Group and has also added a term and condition into the Project Certificate to require

¹⁰⁷ Exhibit 22, NIRB Public Hearing File No.: 11MN034, filed by Sayisi Dene First Nation and Northlands Denesuline First Nation, June 17, 2021 Correspondence (and attachment) to K. Costello, Executive Director, NIRB, dated June 17, 2021.

¹⁰⁸ As discussed in Section [5.1.1.4](#) Terrestrial Wildlife; [5.1.1.5](#) Marine Sediment; [5.1.1.6](#) Marine Water Quality; [5.1.1.7](#) Marine Wildlife; and [5.1.2](#) Conclusions and Recommendations of the Board in Respect of Ecosystemic Effects.

Agnico Eagle to provide more specific reporting on the operation, maintenance, and monitoring of the waterline system, including the leak detection system.

5.3.2 Conclusions and Recommendations of the Board in Respect of Other Items considered by the Board

In considering the views of the Proponent, the Intervenors, Community Representatives, and interested members of the public throughout the assessment of the Waterlines Proposal and as outlined above, the Board has concluded that the potential for ecosystemic or socio-economic effects to occur as a result of other issues considered by Board during the assessment of the Waterlines Proposal can be appropriately managed through:

- the commitments provided by the Proponent;¹⁰⁹
- the application of key mitigation and monitoring measures under the existing Project Certificate No. 006, Amendment 1;
- the application of revised or additional terms and conditions to the exiting Project Certificate No. 006, Amendment 1 that the Board has recommended, as set out in Section [8.3.4](#); and
- the subsequent completion of the licensing and permitting processes applicable to the waterlines and discharge infrastructure.

6 Recommendation to the Minister

The NIRB provides this Reconsideration Report and Recommendations to the Responsible Ministers as required under Article 12, Section 12.8.3 of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)* and s. 112(5) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*). Following the NIRB's assessment of the potential ecosystemic and socio-economic effects of Agnico Eagle's "Saline Effluent Discharge to Marine Environment" (Waterlines Proposal) the NIRB's duly appointed decision-making Panel for the file has concluded that the Waterlines Proposal should be allowed to proceed to the permitting and licensing stage, subject to the following:

- the commitments provided by the Proponent;¹¹⁰
- the application of the general mitigation and monitoring measures under the existing Project Certificate No. 006, Amendment 1 and subject to the Terms and Conditions identified as specifically applicable to the Waterlines Proposal in Section [8.2](#) that follows; and

¹⁰⁹ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

¹¹⁰ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment*.

- the application of revised or additional terms and conditions to the exiting Project Certificate No. 006, Amendment 1 that the Board has recommended, as set out in Section [8.3](#) that follows.

7 Recommendations for Regulatory Agencies, Land and Mineral Owners

The Board notes from the final written submissions, and presentations and responses by Intervenors at the Public Hearing, that further review of the proposed amended activities would be occurring under the separate processes for responsible authorities, and land and mineral owners. As required by the NIRB's ongoing monitoring program for the Meliadine Gold Mine Project under NIRB Project Certificate No. 006, Amendment 1, the Board expects to receive updates from Regulatory Authorities on the progress of these subsequent processes, as well as the revised mitigation and monitoring plans from the Proponent as they become available.

The Board would also like to reiterate that there are significant benefits to the quality of the Board's assessments if government agencies and regulatory bodies that may not have direct responsibility for permitting, licensing, or otherwise exercising authority over project authorizations still participate in the Board's assessment to provide specialist advice and direction. In this respect, the Board benefitted greatly from provision of written comments and the participation of Health Canada during the assessment. Although they did not submit written comments, the participation of Natural Resources Canada during the Public Hearing was appreciated. While the Board recognizes that these parties may face resource constraints that limit their ability to participate when they are not exercising regulatory authority for a project, the provision of expert advice is essential to the Board's ability to complete comprehensive and thorough assessments.

In regard to Community Representatives' comments on trust and sharing of information noted above in Section [4.4.3](#), the Board heard the CIRNAC, GN, and KIA express support for sharing information with the community and working with them to address concerns or share feedback on specific projects or regional development.

7.1 Supporting Community Capacity

During the assessment, the Board heard from several registered Intervenors and Community Representatives that although community-based organizations, such as the Hunters and Trappers Organizations, and individual Inuit knowledge holders may be very interested and willing to work with Agnico Eagle to ensure Inuit Qaujimaningit, Inuit Qaujimajatuqangit, and local community knowledge is considered in the development of measures to prevent, manage, mitigate, and monitor project effects, unless sufficient and stable resources are available to fund this kind of participation, these types of initiatives cannot succeed.

In particular, the Board heard that, in principle, there was widespread support for the Terrestrial Advisory Group proposed by Agnico Eagle as a mechanism to ensure community input, Inuit Qaujimajatuqangit, and traditional knowledge informs the development and implementation of the Terrestrial Environment Management and Monitoring Plan (TEMMP), particularly in relation to

the potential for effects on caribou. However, all parties expressed concern that without reassurances of stable funding for participants, the Terrestrial Advisory Group may be unable to function effectively as intended.

During the Public Hearing, Kivalliq Wildlife Board noted the support of the Hunters and Trappers Organizations in the region for the creation of a Terrestrial Advisory Group, but also emphasized the need for financial support for the KWB and HTOs to facilitate involvement:

The Kivalliq Wildlife Board feels that if hunters and trappers organizations are to be involved in the terrestrial advisory group, there needs to be a significant financial contribution given to the organizations to facilitate the additional capacity required to be involved in the group.¹¹¹

Similarly, Nunavut Tunngavik Incorporated also identified that the effective functioning of the TAG would be dependent on sustainable funding for participants:

So there's opportunities there, but it's going to mean all the different organizations sort of working together in a coordinated fashion and -- and having that working relationship and that certain level of trust, and I guess I emphasize that because for the TAG, the terrestrial advisory group, to really work, it's going to require that the HTOs or the communities are meeting about these issues before they actually go to the TAG meeting. It's not fair for the representatives to just fly in, and then they have to respond -- like, they're just seeing the information for the first time a lot of these times; right?¹¹²

In response to questioning by the Board during the Public Hearing, Agnico Eagle identified that although Agnico Eagle has provided some support to the Kangiqliniq Hunters and Trappers Organization and Agnico Eagle also has hired Inuit Qaujimajatuqangit advisors on staff, the obligations to fully fund participation in the Terrestrial Advisory Group should not be the sole responsibility of Agnico Eagle, stating as follows:

Everyone sees the benefit of this advisory group to make a difference, and I think there's opportunities where other parties would get engaged and provide the funding to make it a collaborative approach not just on discussion but ensuring that we build that capacity in the communities and it becomes sustainable.

¹¹¹ C. Tartak, Kivalliq Wildlife Board, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p. 461, lines 10-14.

¹¹² B. Dean, Nunavut Tunngavik Incorporated, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 2, June 15, 2021 at pp. 286-287, lines 22-26 and 1-8.

*So I don't think it's just -- it should be Agnico Eagle. We're doing our part, I think, but I think others can provide additional support with the community because I think it's important to everybody.*¹¹³

During the Public Hearing, in response to questioning about the availability of funding for the TAG and other community-based monitoring programs, the Northern Projects Management Office filed information regarding six (6) general programs that could be a source of funding for parties wishing to participate in community-based monitoring initiatives:

- Aboriginal Fund for Species at Risk (AFSAR);
- Canada Nature Fund;
- Indigenous Centre for Cumulative Effects (ICCE);
- Indigenous Habitat Participation Program;
- Marine Planning and Conservation funding (MPC); and
- Nunavut General Monitoring Plan (NGMP).¹¹⁴

At present, virtually all of the active mines in Nunavut have established some form of collaborative advisory group with members from regulatory agencies, community-based organizations/individual harvesters and knowledge holders to share knowledge and information about effect mitigation and monitoring programs. The Board recognizes that there are many different structures for these types of advisory groups but has heard repeatedly that two (2) central features of these groups determine the ultimate success. Firstly, as noted by many participants during the Public Hearing, equal access of all participants to stable and sustainable funding for their participation, including preparation and technical support in the Terrestrial Advisory Group, is critical. Secondly, trust is also essential. As stated by a member of the public during the Public Hearing in Rankin Inlet:

...one of the things I just wanted to comment to many of you was trust, because trust is a very precious thing. It's a very important thing.

Our parents, our ancestors did not have trust with the newcomers, and so many of us still don't have that trust, and that is something personally I always have to work on because trust is something that gives you a sense of safety, and trust cannot be written into a clause or subsection. It's an exchange between human beings, and seeing

¹¹³ S. LeClair, Agnico Eagle, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 1, June 14, 2021 at p.198, lines 9-19.

¹¹⁴ Exhibit 20, NIRB Public Hearing File No.: 11MN034, filed by the Northern Projects Management Office, June 17, 2021, Correspondence from L. Dyer to K. Costello, Re: Programs to Support Community-Based Monitoring, pp. 3-6.

*you as a human being and you see me as a human being, that's where it begins.*¹¹⁵

While recognizing that these are essential elements in the development of a successful collaboration, the Board also acknowledges that the Board cannot issue a term and condition in the Project Certificate that would address these two (2) items. Instead, the Board wishes to urge Nunavut Tunngavik Incorporated, the Kivalliq Inuit Association, the Government of Nunavut and all the Federal responsible Ministers to move beyond acknowledging the concerns of the Hunters and Trappers Organizations, Hamlets and community members who participated in this Public Hearing, to action. The Board encourages all responsible authorities to identify what they may be able to do individually, or collectively, to provide equal access to sustainable funding to build the capacity in communities that is required to participate effectively in advisory groups and community-based monitoring initiatives. In the additional term and condition the Board recommends adding to the Project Certificate to establish the Terrestrial Advisory Group, the Board has identified that the TAG is considered by the Board to be a mechanism for ensuring that the Proponent meets the broader objective of considering Inuit, Traditional and Community knowledge in the design of impact management, mitigation, and monitoring. The Board appreciates the commitments of the Registered Intervenors who indicated their willingness to participate in the establishment and operation of the TAG but encourages Agnico Eagle to also consider more broadly how the objective of the new term and condition can be met in respect of potential project impacts in addition to caribou and the associated terrestrial environment.

8 Recommendations Regarding Changes to Existing Project Monitoring or Project Certificate Terms and Conditions

As set out in Article 12, Sections 12.7.1 and 12.7.2 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)*, the Nunavut Impact Review Board (NIRB) has the jurisdiction to establish a project-specific monitoring program to:

- measure the ecosystemic and socioeconomic effects of a project;
- assess whether the project is in compliance with the prescribed project terms and conditions;
- share information with regulatory agencies to support the enforcement of land, water or resource use approvals and agreements; and
- to assess the accuracy of predictions contained in the environmental impact statements.

Given the Board's application of the precautionary approach to the original consideration of the Meliadine Gold Mine Project and the assessment of the Saline Effluent Discharge to Marine Environment Proposal, it is the Board's view as noted in previous sections, that project-specific

¹¹⁵ B. Dean, Resident of Rankin Inlet, NIRB Public Hearing File No.: 11MN034 Transcript, Vol. 3, June 16, 2021 at p.618, lines 10-20.

monitoring will continue to play a crucial role in addressing the uncertainty regarding project effects and enabling all parties to adapt mitigation measures on an ongoing basis to ensure any potential negative effects are prevented or limited to the extent possible.

As established in the original Meliadine Gold Mine Final Hearing Report,¹¹⁶ the role of the Board with respect to the establishment of monitoring programs is to focus the terms and conditions in relation to the Project. With respect to existing or future general regional and territorial monitoring programs that may include some of the same monitoring parameters/indicators as the project-specific monitoring program, the *Nunavut Agreement* and *NuPPAA* also directs the NIRB to avoid duplication but facilitate co-ordination and integration between the project-specific monitoring programs required by the NIRB and more general programs such as the Nunavut General Monitoring Program. Where the requirements of regional or territorial programs are more extensive or substantively different than those established through the project certificate, at all times the Proponent must ensure compliance with the project certificate terms and conditions.

To co-ordinate, integrate and avoid duplication with other monitoring programs, but also to ensure that the NIRB's project-specific monitoring program yields the information required to measure effects and adequately assess compliance with terms, conditions, regulatory instruments, and agreements, the NIRB's monitoring program is developed after consultation with responsible authorities, the resource and land owners and the proponent following a Regulators' Meeting that typically occurs within several weeks after the responsible Minister has issued a decision that the Project can proceed to obtain regulatory authorizations and providing the Minister's direction regarding recommended terms and conditions. A short time after the Regulators' Meeting, the NIRB issues the project certificate, but the project-specific monitoring program, which is usually issued as an Appendix to the project certificate may not be issued in final form until some months after key regulatory authorizations, including land use permits, water licences, mineral leases, etc. are issued so that the monitoring program supplements and supports, and does not duplicate, the monitoring requirements in regulatory and land use instruments. The NIRB anticipates issuing this Appendix to the Project Certificate once all key regulatory authorizations, including land use permits, water licences, mineral leases, etc. are issued.

It is important to remember that the NIRB's monitoring program will have varying requirements over the course of the Project lifecycle, and that monitoring requirements will apply from construction to eventual abandonment and reclamation. In areas where there may be a need for flexibility in relation to the terms and conditions of the project certificate or their application, the NIRB has endeavored to reflect this in the associated language and/or acknowledge that objectives may be achieved through various means. In addition, if the monitoring program needs to be modified to better achieve its purpose, the Board, the Proponent, the Designated Inuit Organization

¹¹⁶ *NIRB Final Hearing Report for Agnico Eagle Mines Limited's Meliadine Gold Project*, NIRB File No. 11MN034, October 10, 2014. Public Registry ID.: 287845

or other interested parties may cause the Board, under Section 12.8.2 of the *Nunavut Agreement* to revisit the monitoring program, or any other terms and conditions in the NIRB project certificate. However, the NIRB wishes to clearly state that the Board has every expectation that Agnico Eagle Mines Limited will fulfill all commitments made during the Public Hearing, within its Amendment Application and supporting documentation submitted throughout the assessment, not just those commitments that have been incorporated into the Terms and Conditions recommended by the Board in this Report.

8.1 Changes to the NIRB's Monitoring Program

The Board notes from its discussions throughout this Report and its recommendations for Regulatory Authorities, that monitoring to identify the potential for changes associated with the Waterlines Proposal is integral to the Board's decision to recommend that the Waterlines Proposal be allowed to proceed. As is evident in the Board's revisions to some of the key monitoring provisions in Project Certificate No. 006, Amendment 1, the Board considers the incorporation of Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community Knowledge into the design of impact management, mitigation and monitoring plans and programs to be essential. Even when not expressly included in the recommended amendments to the terms and conditions of Project Certificate No. 006, Amendment No. 1, the Board expects Agnico Eagle to seek out opportunities to obtain these types of knowledge and to consider the knowledge shared with Agnico Eagle to improve project monitoring whenever possible.

8.2 Existing Terms and Conditions with Specific Application to the Waterlines Proposal

It is the expectation of the Board that all terms and conditions in the Meliadine Gold Mine Project Certificate No 006 will be applied in full to the scope of the Waterlines Proposal. The Board also notes that where existing terms and conditions are specifically applicable to approved project infrastructure, these terms and conditions would now add the Waterlines Proposal components and monitoring programs to the scope of the previously-approved Meliadine Gold Mine Project. The Board also expects the updated impact predictions provided within the IS Addendum provided during the assessment of the Waterlines Proposal will update the impact predictions from the Final Impact Statement provided for the previously-approved Meliadine Gold Mine Project.

The following terms and conditions, including associated management, monitoring, and reporting requirements, have specific application to the Waterlines Proposal and include, but are not limited:

- Air Quality – 1
- Climate and Meteorology – 7, 8, and 9
- Terrestrial Environment – 13, 16, 17, and 18
- Hydrology – 27, 28, and 29
- Freshwater Aquatic Environment – 30, 31, and 34
- Vegetation – 35

- Terrestrial Wildlife - 43, 44, 45, 47, 56, and 57
- Birds – 61, 63, and 72
- Marine Wildlife- 81
- Traditional Activity and Knowledge – 102 and 103
- Non-traditional Land Use and Resource Use - 104

8.3 Recommended Changes to Project Certificate Terms and Conditions

8.3.1 Proponent Commitments

Throughout the Board’s assessment of the Waterlines Proposal, Agnico Eagle and several Intervenor have resolved issues and addressed concerns by agreeing to various commitments.¹¹⁷ The Board appreciates the collaboration of all parties to come to resolution in respect of the issues identified by the Intervenor throughout the assessment of the Waterlines Proposal. However, as is often the case during the Board’s assessment, not all commitments made during the NIRB process are within the scope of the Waterlines Proposal and the potential effects. Although the Board may have chosen not to incorporate specific commitments into terms and condition under the amended Project Certificate, nonetheless the Board is supportive of the collaboration demonstrated by all parties throughout the assessment. To be clear, the Board expects that Agnico Eagle will fulfill all commitments made during the Board’s assessment of the Waterlines Proposal, not just those commitments that have been incorporated into the amended Terms and Conditions recommended by the Board in this Report.

The Board expects that Agnico Eagle will fulfill all commitments made during the Public Hearing, within its Impact Statement Addendum and supporting documentation submitted during the Reconsideration, not just those commitments that have been incorporated into the Terms and Conditions of this Project Certificate. To support transparency and accountability associated with the Proponent’s commitments, the Board requires the Proponent to provide, in its annual report to the NIRB, a summary of the status of the Proponent’s progress with respect to meeting any commitments which are intended to prevent or mitigate adverse ecosystemic or socio-economic effects of the Project and that are beyond the scope of ensuring compliance with Project Certificate terms and conditions.

¹¹⁷ Exhibit 21, NIRB Public Hearing File No.: 11MN034, filed by Agnico Eagle, June 17, 2021, *Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment* and Exhibit 23, NIRB Public Hearing File No.: 11MN034, filed by the Kivalliq Inuit Association, June 17, 2021 *Proposed Terms and Conditions and Commitments* NIRB File No.: 11MN034.

8.3.2 Ecosystemic Terms and Conditions

8.3.2.1 Revised Ecosystemic Terms and Conditions

The Board has identified that the following revisions to the existing terms and conditions of Project Certificate No. 006 are necessary to manage, mitigate or monitor the potential for ecosystemic effects resulting from the Waterlines Proposal.

Note: Additions to the revised terms and conditions have been identified in bold and underlined text, and deletions from the revised terms and conditions have been identified in strikethrough and bold text.

<u>Revised</u> Term and Condition No.	25
Category <u>REVISED:</u>	Hydrogeology and Groundwater – Groundwater Management Plan/ <u>Adaptive Management Plan</u>
Responsible Parties <u>REVISED:</u>	The Proponent, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), <u>Environment and Climate Change Canada (ECCC) and Fisheries and Oceans Canada (DFO)</u>
Project Phase:	Pre-construction, construction, Operations, temporary closure/care and maintenance, closure, post closure monitoring.
Objective:	To manage saline groundwater and minimize the impacts to permafrost, soil, surface water, vegetation, and wildlife
Term or Condition <u>REVISED:</u>	The Proponent shall submit a detailed Groundwater Management Plan <u>and/or Adaptive Management Plan</u> to the NIRB which includes mitigation measures designed to address the potential for higher-than-predicted volumes of saline water inflows into the underground mine, treatment and disposal methods, and details of its plan to monitor saline water at site <u>prior to disposal through the waterlines to Melvin Bay</u> . The plans must identify uncertainties pertaining to predictions for groundwater quality and quantity and inform <u>adaptive water</u> management strategies for the site <u>which may include the management of saline groundwater and surface contact water, and identifies discrepancies between predicted groundwater inflow from 2014, 2020 and future modelling, as well as between predicted and actual groundwater inflows</u> . CIRNAC, <u>ECCC, and DFO</u> should be consulted with respect to the contents of the Plans and any required <u>adaptive management and mitigation measures</u> .

Reporting Requirements <u>REVISED:</u>	An Updated plans <u>or confirmation that the versions of the Plans already submitted to the Board</u> shall be <u>provided</u> to the NIRB within 90 days of receipt of the amended Project Certificate. <u>Subsequently,</u> the Proponent shall provide a summary discussion of its implementation of this Term and Condition, including the results of monitoring or <u>development and implementation of</u> adaptive management strategies, to the NIRB through the Proponent’s annual monitoring report.
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<u>Revised</u> Term and Condition No.	44
Category:	Terrestrial Wildlife and Wildlife Habitat – Caribou Monitoring
Responsible Parties <u>REVISED:</u>	The Proponent, Government of Nunavut, <u>and other participants in the Terrestrial Advisory Group (TAG)</u>
Project Phase:	Pre-construction, Construction, Operations, Temporary Closure/Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To further define details of monitoring programs
Term or Condition <u>REVISED:</u>	In consultation with the Government of Nunavut (GN) and other relevant parties, <u>such as the Terrestrial Advisory Group,</u> the Proponent shall further develop its Terrestrial Environment Management and Monitoring Plan (TEMMP) to include increased caribou monitoring across the regional study area and additional details on the scope and design of monitoring programs. The Proponent shall also demonstrate consideration for contributing to existing and planned regional monitoring initiatives associated with terrestrial wildlife and wildlife habitat <u>and the incorporation of Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community Knowledge,</u> as appropriate. Monitoring should be adequate to test impact predictions, monitor impact thresholds and trends over time, and to support implementation of mitigation measures as proposed in the Final Environmental Impact Statement <u>and any subsequent Addenda submitted by the Proponent.</u>
Reporting Requirements:	Results of discussions, implementation of measures, updates to the Plan, and monitoring results shall be reported and discussed in the Proponent’s annual report to the NIRB.

<i>Revised</i> Term and Condition No.	53
Category:	Terrestrial Wildlife and Wildlife Habitat – Furbearer surveying
Responsible Parties:	The Proponent
Project Phase:	Pre-construction, Construction, Operations, Temporary Closure/Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To minimize disturbance to furbearers from Project activities
Term or Condition <u>REVISED:</u>	Prior to construction of Project infrastructure <u>including the waterlines</u> and Phase 2 of the all-weather access road, the Proponent shall conduct a survey that is sufficient to locate any dens of foxes, bears or wolverines that could be damaged or destroyed during construction or operation of the Project.
Reporting Requirements <u>REVISED:</u>	Survey results shall be submitted to the NIRB at least 60 days prior to the commencement of traffic associated with the transport of saline water on the all-weather access road <u>installation of the waterlines</u> . Implementation of these measures and monitoring results as well as any subsequent updates to the Plan, shall be reported and discussed in the Proponent’s annual report to the NIRB.

<i>Revised</i> Term and Condition No.	54
Category <u>REVISED:</u>	Terrestrial Wildlife and Wildlife Habitat – Movement of wildlife
Responsible Parties:	The Proponent
Project Phase:	Pre-construction, Construction, Operations, Temporary Closure/Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To ensure Project infrastructure does not prevent or unduly limit the movement of wildlife

<p>Term or Condition <u>REVISED:</u></p>	<p>The Proponent shall ensure that road safety barriers, orberms, <u>or waterline coverings</u> associated with Project infrastructure, all-weather access road and associated roads/trails <u>and the waterlines</u> are constructed to allow for the safe passage of caribou and other terrestrial wildlife while achieving the objective of separating public road use with Project-related mine traffic <u>or transport of saline effluent</u>.</p>
<p>Reporting Requirements:</p>	<p>The Proponent shall provide a summary discussion of its implementation of this term and condition to the NIRB through the Proponent’s annual monitoring report.</p>

<p><u>Revised</u> Term and Condition No.</p>	<p>57</p>
<p>Category:</p>	<p>Terrestrial Wildlife and Wildlife Habitat – Reporting</p>
<p>Responsible Parties:</p>	<p>The Proponent</p>
<p>Project Phase:</p>	<p>Construction, Operations, Temporary Closure /Care and Maintenance, Closure and Post-Closure Monitoring</p>
<p>Objective:</p>	<p>To mitigate and monitor for impacts to wildlife</p>
<p>Term or Condition <u>REVISED:</u></p>	<p>Within its annual report to the NIRB, the Proponent shall incorporate a review section which includes:</p> <ul style="list-style-type: none"> a. An examination for trends in the measured natural variability of Valued Ecosystem Components in the region relative to the baseline reporting; b. A detailed analysis of wildlife responses to operations with emphasis on wildlife behaviour, mortalities and displacements (if any), and responses to operations of the all-weather access road and associated access roads/trails, <u>and the waterlines</u>; c. A demonstration and description of how the monitoring results, including the all-weather access road, and associated access roads/trails, <u>and waterlines</u> contribute to cumulative effects of the project; and d. Any proposed changes to the monitoring survey methodologies, statistical approaches or proposed adaptive management stemming from the results of the monitoring program.

Reporting Requirements:	The Proponent shall provide its discussion of these factors to the NIRB through the Proponent’s annual monitoring report.
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8.3.2.2 *NEW Ecosystemic Terms and Conditions*

In addition to the preceding revisions to the existing terms and conditions of Project Certificate No. 006, the Board has determined that the following terms and conditions should be **added** to the Project Certificate to manage, mitigate, or monitor the potential for ecosystemic effects on caribou and the marine environment that could result from the Waterlines Proposal.

NEW Term and Condition No.	132
Category:	Terrestrial Wildlife and Wildlife Habitat – Incorporation of Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community Knowledge
Responsible Parties:	The Proponent, Nunavut Tunngavik Incorporated, Kivalliq Inuit Association, Kivalliq Wildlife Board, Government of Nunavut, Kangiqliniq Hunters and Trappers Organization, Baker Lake Hunters and Trappers Organization, the Sayisi Dene First Nation, Northlands Denesuline First Nation (and the Arviat Hunters and Trappers Organization, Issatik Hunters and Trappers Organization, the Aqigiq Hunters and Trappers Organization if they wish to participate)
Project Phase:	Pre-construction, Construction, Operations, Temporary Closure/Care and Maintenance, Closure and Post-Closure
Objective:	To establish mechanisms for the Proponent to seek out, consider, and incorporate Inuit Qaujimaningit, Inuit Qaujimajatuqangit, and Traditional and Community Knowledge into the Project’s impact management, mitigation, and monitoring measures related to the protection of terrestrial wildlife and wildlife habitat.
Term or Condition:	The Proponent shall, in consultation with the groups listed as Responsible Parties above, and any other parties considered by the Group to be necessary, establish a Terrestrial Advisory Group (TAG). The central mandate of the TAG will be to continually review and refine impact management, mitigation, and monitoring details within the Terrestrial Environment Management and Monitoring Plan (TEMMP). The TAG Members will collaborate to share methods, results, and analysis from caribou and terrestrial environment studies and monitoring Inuit Qaujimaningit, Inuit Qaujimajatuqangit,

	Traditional and Community Knowledge shared by knowledge holders, and other terrestrial environment monitoring data as it becomes available. Agnico Eagle shall be responsible for demonstrating how the information shared by the TAG has been incorporated into the Project’s impact management, mitigation, and monitoring measures related to the protection of terrestrial wildlife and wildlife habitat as appropriate.
Reporting Requirements:	Finalized Terms of Reference for the Terrestrial Advisory Group shall be provided to the Nunavut Impact Review Board (NIRB) within sixty (60) days of issuance of the amended Project Certificate. An overview of information shared during Terrestrial Advisory Group meetings and how information from the TAG was incorporated by Agnico Eagle into the Project’s impact management, mitigation, and monitoring measures shall be provided to the NIRB on an annual basis in the Proponent’s Annual Report.

Commentary: During the Board’s assessment of the “Saline Effluent Discharge to Marine Environment Project Proposal” (Waterlines Proposal), the parties listed as “Responsible Parties” expressed their interest in participating in the Terrestrial Advisory Group (TAG). However, the Board also heard that there may be financial or other resource limitations that may affect the ability of some parties to participate fully in the TAG on an on-going basis. If any of the parties, other than the Proponent, become unable or unwilling to participate on the TAG established under this term and condition, the TAG may decide to continue in the absence of that party.

NEW Term and Condition No.	133
Category:	Marine Environment - General
Responsible Parties:	The Proponent, Kivalliq Inuit Association, Environment and Climate Change Canada and Kivalliq Wildlife Board
Project Phase:	Operations and Temporary Closure/Care and Maintenance
Objective:	To ensure potential impacts to the marine environment are identified and appropriately mitigated.
Term or Condition:	The Proponent shall update the Ocean Discharge Monitoring Plan to include additional monitoring conducted to validate that the volume

	<p>and/or quality of water discharged into the marine environment via the waterlines does not have acute or chronic adverse effects on the marine environment, including marine water quality, marine mammals, fish, shellfish and other organisms and marine sediment. At a minimum, the additions to the updated Ocean Discharge Monitoring Plan shall include:</p> <ul style="list-style-type: none"> ▪ post-discharge monitoring in the receiving environment to validate that the concentrations of saline effluent measured 100 m from the diffuser reach near zero before ice formation; ▪ the sublethal toxicity testing program developed and implemented by the Proponent in consultation with Environment and Climate Change Canada, including: <ul style="list-style-type: none"> ○ any benthic invertebrate studies conducted by the Proponent; ▪ any community-based shellfish monitoring program developed and implemented by the Proponent in consultation with the Kivalliq Wildlife Board; and ▪ monitoring conducted by the Proponent of the marine environment (including marine water quality, marine mammals, fish, shellfish and other organisms and marine sediment) under the regulatory requirements (regulations, authorizations and permits) applicable to the Waterlines Proposal
<p>Reporting Requirements:</p>	<p>The updated Ocean Discharge Monitoring Plan must be submitted to the Nunavut Impact Review Board (NIRB) at least 60 days prior to the commencement of discharges of effluent from the waterlines into the marine environment. Thereafter, on an annual basis, the Proponent shall report the following in the Annual Report:</p> <ul style="list-style-type: none"> ▪ the results of monitoring conducted under the Ocean Discharge Monitoring Plan; ▪ any updates or significant modifications to the Ocean Discharge Monitoring Plan since the last annual report; and ▪ any adaptive management or mitigation measures developed or implemented by the Proponent in response to the results of monitoring under the Ocean Discharge Monitoring Plan.

8.3.3 Socio-Economic Terms and Conditions

The Board did not identify that there were any revisions or additions to the existing terms and conditions of Project Certificate No. 006 to manage, mitigate or monitor the potential for socio-economic effects resulting from the Waterlines Proposal.

8.3.4 Other Terms and Conditions

8.3.4.1 Revised Other Terms and Conditions

The Board has identified that the following revisions to the existing terms and conditions of Project Certificate No. 006 are necessary to manage, mitigate or monitor the potential for other effects resulting from the Waterlines Proposal.

Note: Additions to the revised terms and conditions have been identified in bold and underlined text, and deletions from the revised terms and conditions have been identified in strikethrough and bold text.

<u>Revised</u> Term and Condition No.	118
Category:	Accidents and Malfunctions – All-weather access road
Responsible Parties:	The Proponent
Project Phase:	Pre-Construction, Construction, Operations, Temporary Closure / Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To ensure adequate monitoring of wildlife presence informs road management and operations
Term or Condition <u>REVISED:</u>	<p>The Proponent shall include in an updated Terrestrial Wildlife Management and Monitoring Plan (TEMMP), plans for increased caribou monitoring efforts including weekly winter track surveying and summer and fall surveys undertaken on foot twice per month. These results shall be reported to the NIRB with the Proponent’s annual reporting requirements.</p> <p><u>The Proponent shall, in consultation with the Terrestrial Advisory Group or appropriate parties, develop a decision tree outlining mitigation and monitoring steps to be implemented when caribou in specified group sizes are observed within specified distances of the Project's Awar and waterlines.</u></p>
Reporting Requirements:	The Proponent shall provide a summary discussion of its implementation of this term and condition (including results of

	monitoring, adaptive management strategies, consultation, and contribution efforts) to the NIRB through the Proponent’s annual monitoring report.
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<u>Revised</u> Term and Condition No.	119
Category <u>REVISED:</u>	Accidents and Malfunctions – All-weather access road <u>and Adjacent Waterlines</u>
Responsible Parties:	The Proponent
Project Phase:	Pre-Construction, Construction, Operations, Temporary Closure / Care and Maintenance, Closure and Post-Closure Monitoring
Objective <u>REVISED:</u>	To mitigate potential interactions of caribou with traffic along the AWAR <u>or Waterlines</u>
Term or Condition <u>REVISED:</u>	<p>The Proponent shall include within its updated Terrestrial Environment Management and Monitoring Plan (<u>TEMMP</u>), a commitment to establishing deterrents along the <u>all-weather access road</u> (AWAR) at any areas where it is observed that caribou are attracted to the AWAR and their presence may present a risk of collisions with traffic along the AWAR (such as areas where caribou are utilizing the AWAR to facilitate movement, areas where caribou may be licking minerals/road salt from the road, areas where caribou are gathering to avoid insects, etc.).</p> <p><u>Prior to the waterlines becoming operational, the Proponent shall specify within the TEMMP and/or Spill Contingency Plan measures that will be implemented to prevent caribou from accessing or being exposed to water spilled, or otherwise released from the waterlines.</u></p>
Reporting Requirements <u>REVISED:</u>	<p>The updated <u>TEMMP to address AWAR deterrents plan</u> should be submitted to the NIRB at least 90 days prior to the start of construction <u>construction of Phase 2 of the AWAR. The updated plan(s) associated with the waterlines should be submitted at least 90 days prior to the commencement of waterline operations.</u></p> <p>Implementation of these measures, updates to the plan(s), and monitoring results shall be reported and discussed in the Proponent’s annual report to the NIRB.</p>

<u>Revised</u> Term and Condition No.	124
Category:	Accidents and Malfunctions – Spill preparedness
Responsible Parties:	The Proponent
Project Phase:	Pre-Construction, Construction, Operations, Temporary Closure / Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To ensure protection of local water resources
Term or Condition <u>REVISED:</u>	Prior to construction, the Proponent shall update its Spill Contingency Plan specific to a major spill events <u>related to hydrocarbons or releases from the waterlines</u> occurring on the bypass road and within proximity to (and including potential spills into) Nipissar Lake.
Reporting Requirements:	The updated plan should be submitted to the NIRB at least 90 days prior to the start of construction. Implementation of these measures and monitoring results as well as any subsequent updates to the Plan, shall be reported and discussed in the Proponent’s annual report to the NIRB.

<u>Revised</u> Term and Condition No.	125
Category:	Accidents and Malfunctions – All-weather access road
Responsible Parties:	The Proponent
Project Phase:	Pre-Construction, Construction, Operations, Temporary Closure / Care and Maintenance, Closure and Post-Closure Monitoring
Objective:	To ensure rules for use of the road are clearly communicated in the interest of providing for the health and safety of all users of the AWAR
Term or Condition <u>REVISED:</u>	The Proponent shall implement all such measures necessary to protect public and mine traffic on all Project roads. The measures undertaken shall include, but are not limited to: <ul style="list-style-type: none"> a. Prior to expansion of the AWAR, the Proponent shall update its Roads Management Plan to include a detailed consultation plan specifying the methods the Proponent will use to provide the Kivalliq Inuit Association, members of the Hunters and Trappers Organizations in the area, residents of Rankin Inlet and the Hamlet of Rankin Inlet with information regarding the

	<p>safety requirements of AWAR use. The updated Plan is to be submitted to the Nunavut Impact Review Board, Kivalliq Inuit Association, Kangiqliniq Hunters and Trappers Organization, and the Government of Nunavut;</p> <p>b. Prior to the opening of the AWAR to the public, and annually thereafter, advertise and hold at least one community meeting in the Hamlet of Rankin Inlet and Chesterfield Inlet to explain to the community the rules for use of the road;</p> <p>c. Prior to the opening of the AWAR to the public, the Proponent shall address enforcement of health and safety rules for the operation of the road (i.e., no shooting zone) and implement necessary communications with the public (i.e., signage and public meetings), which includes, but is not limited to:</p> <ul style="list-style-type: none"> i. Maintaining manned and unmanned gates as proposed along the all-weather access road; ii. The posting of signs in English and Inuktitut along the road at appropriate intervals (i.e., 10 km and bridge crossings); and iii. Place notices at least quarterly on the radio and television to explain to the community the rules for use of the road; <p>d. Once the AWAR expansion is completed and the road is opened to the public, the Proponent shall conduct a vehicle survey four times annually (once during the weekdays during the winter season, once during the week end days during the winter season, once during the weekdays during the summer season and once during the week end days during the summer season) to record the number and types of mine vehicles and the number and type of public vehicles using the AWAR over a 12 hour period (8:00 am to 8:00 pm). The vehicle survey data shall be collated as indicated above and provided in the Proponent’s Annual Report;</p> <p>e. <u>Prior to the construction of the waterlines, the Proponent shall update the Roads Management Plan to address interruptions to road access that may occur during waterlines installation/construction and subsequently during waterlines operation.</u></p> <p>f. Prior to the development of the Discovery deposit, the Proponent shall update its Road Management Plan for the planned operation of the twinned road which could include additional rules, Project infrastructure, or other</p>
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	<p>measures designed to maintain safety for employees and the public; and</p> <p>g. Report all accidents or other safety incidents on the road, to the Government of Nunavut, Kivalliq Inuit Association, the Hamlet of Rankin Inlet and the NIRB immediately.</p>
<p>Reporting Requirements <u>REVISED:</u></p>	<p>The updated plan should be submitted to the NIRB at least 90 days prior to the start of construction of Phase 2 of the AWAR. As noted in the Board’s decision on the Saline Effluent Discharge to the Marine Environment proposal, updated plans shall be submitted to the NIRB prior to undertaking transport of saline groundwater from the Meliadine site to the temporary storage tank near Rankin Inlet. <u>The updates to the plan as required due to the construction and operation of the waterlines, shall be provided to the NIRB at least 90 days prior to construction of the waterlines.</u> Implementation of these measures and monitoring results as well as any subsequent updates to the Plan, shall be reported and discussed in the Proponent’s annual report to the NIRB.</p>

Commentary: The reference under the Reporting Requirements to “90 days prior to the start of construction” is not intended to be tied to general project construction, but rather is intended to be linked to 90 days prior to the construction associated with the expansion of the AWAR (referred to as “Phase 2 of the AWAR development” in the Proponent’s Final Environmental Impact Statement)

8.3.4.2 NEW Other Term and Condition

In addition to the preceding revisions to the existing terms and conditions of Project Certificate No. 006, the Board has determined that the following term and condition should be **added** to the Project Certificate to ensure that there is adequate monitoring for spills or leaks that could occur along the waterlines.

NEW Term and Condition No.	134
Category:	Accidents and Malfunctions – Waterlines System Operation, Maintenance and Monitoring, including the Leak Detection System
Responsible Parties:	The Proponent
Project Phase:	Operations, Temporary Closure/Care and Maintenance
Objective:	To ensure there is adequate monitoring of the waterlines system, including the leak detection system, and to demonstrate that appropriate mitigation measures are initiated if waterlines leak occur.

Term or Condition:	Prior to operation, the Proponent shall submit a plain-language and visual- based summary of the waterlines as constructed and operated to facilitate community members understanding of the component and its operation and to support the review of the waterlines design and operation by interested parties. This document shall describe the construction and planned operation, maintenance and monitoring of the waterline system, including the leak detection system.
Reporting Requirements:	The initial version of this summary shall be submitted to the NIRB and interested parties at least 60 days prior to the operation of the waterlines system. Subsequently, this information shall be provided in a Waterline System, Operation, Maintenance and Monitoring section that shall be submitted to the NIRB as part of the annual report

8.3.5 Saline Effluent Disposal Terms and Conditions

8.3.5.1 Revisions to Saline Effluent Disposal Terms and Conditions

<u>Revised</u> Term and Condition No.	128
Category:	Marine Environment
Responsible Parties:	The Proponent, Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)
Project Phase:	Operations, Care and Maintenance, Closure
Objective:	To assess the environmental impact of the Project on the seabed and marine environment if the effluent discharge pipeline is abandoned in place or removed.
Term or Condition <u>REVISED:</u>	The Proponent shall provide the NIRB with a detailed design for the waterlines system that includes the location of the pipeline in relation to the saline effluent storage tank at Itivia, the location of submerged collars supporting the pipeline and the design of the diffuser.
Reporting Requirements:	To be provided to the Nunavut Impact Review Board at least 90 days prior to construction of the effluent pipeline and diffuser system.

<u>Revised</u> Term and Condition No.	130
Category:	Marine Environment
Responsible Parties:	The Proponent, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Environment and Climate Change Canada, and Fisheries and Oceans Canada
Project Phase:	Operations, care and maintenance, and closure
Objective:	To assess the environmental impact of the Project on the seabed and marine environment if the subsea effluent discharge pipeline is abandoned in place or removed.
Term or Condition <u>REVISED:</u>	The Proponent shall remove the subsea pipelines and diffusers in Melvin Bay and <u>will ensure the waterlines infrastructure at Itivia Harbour will be decommissioned and reclaimed as appropriate,</u> when the subsea pipelines are is no longer in use unless it can be demonstrated to the satisfaction of the Nunavut Impact Review Board that this infrastructure will provide a net positive environmental effect to the local ecosystem.
Reporting Requirements <u>REVISED:</u>	Information necessary to support an application for the <u>decommissioning and</u> removal of the subsea pipelines and diffusers <u>and waterline infrastructure at Itivia Harbour</u> must be provided to the Nunavut Impact Review Board for consideration at least 12 months prior to <u>the</u> planned <u>decommissioning and removal.</u>

Appendix A: NIRB COVID-19 Protocols



August 21, 2020

To: NIRB Distribution List

Sent via email

Re: Public Meeting Workplace Safety Planning for COVID-19 and Exposure Control Plan

Dear Parties:

On March 12, 2020 due to public health concerns related to the COVID-19 pandemic and restrictions on gatherings and travel, the Nunavut Impact Review Board (NIRB or Board) cancelled all in-person meetings.

Recent changes to Public Health Orders that allow for the reopening of offices, increasing group size of indoor gatherings and updates to flight schedules in response to increased travel within Nunavut have enabled the Board to reconsider options for resuming in-person meetings. The Board has developed this procedural direction after considerable deliberation and assessment by the Board of:

- the emerging best practices of courts and tribunals across Canada, including tribunals similar to the NIRB;
- available technology and technological limits;
- consideration of the Board's objectives for the conduct of these next steps in the Board's assessment;

In the development of this guidance, the Board emphasizes that the preservation and protection of the health of participants to the process, and Nunavummiut in general, remains a central guiding principle, and the Board has modified our existing processes to reflect the current guidance of public health authorities. The Board also recognizes however, the importance of the Board finding a way to continue to deliver on our mandate and conduct thorough and timely assessments even during this unprecedented and challenging time. To all parties, the Board notes that the COVID-19 pandemic has had global and far-reaching effects on all decision-makers who generally hold in-person proceedings to support their decision-making. The Board notes that although there is a strong desire and comfort in returning to the Board's pre-pandemic practices, the Board has concluded that modifications and new approaches are necessary because an indefinite suspension of the Board's usual in-person proceedings to await a return to normal is unacceptable.

With these considerations in mind, the Board has directed that the following modifications to the previously planned processes to in-person meetings. Specifically, these modifications will enable the NIRB to hold a combination of in-person and teleconference meetings to complete the next steps for its assessments. While the Board recognizes that these modifications require all parties,

V3-Nov 4., 2020

including the Board, to adopt new approaches that may not be their preference, the Board is entitled, and obligated to modify our processes to fulfill our objectives.

In providing this guidance on next steps in a COVID-19 era, the Board preserves the right to further modify the proposed processes - as may be required to reflect changed circumstances such as:

- Updates to applicable guidance from public health authorities and changes to public health measures put in place to prevent the spread of COVID-19;
- Technological innovations and limits; and
- New information from parties.

The NIRB has modified the format of upcoming meetings using a hybrid approach to ensure that in-person community engagement can be preserved, while recognizing that there are significant travel restrictions that may prevent participants who are not resident within Nunavut from being able to travel into the Territory. The Board has concluded that combinations of in-person and video conference meetings, teleconference sessions, and the receipt of written and video submissions by the parties are the best alternatives to the in-person attendance of all participants. The Board has determined that in-person meetings in Nunavut and in-person attendance of parties represented by individuals for which travel into the territory is not currently practical at a single central location or “hub” outside of Nunavut that is linked to the venues in Nunavut can be conducted in compliance with the direction provided by public health authorities in the relevant jurisdictions.

PUBLIC MEETING EXPOSURE CONTROL PLAN

Sign in procedures

The NIRB will maintain a sign in desk for all participants entering a venue to sign in with their name and phone number. The NIRB staff member administering this desk will either have a protective glass separating them from the participants entering. Where this is not achievable, the NIRB staff member will be required to wear a face mask.

The NIRB staff member will keep an accurate count of participants inside the venue to ensure capacity limits as per Public Health Orders are not exceeded. Entry will be denied once the capacity target is reached.

Participants when signing in will be asked if they have a cough, fever or shortness of breath and have been outside of the territory in the last 14 days. If they do, they will be asked to refrain from the meeting. If the symptomatic person has an inquiry that they want addressed, they provide their concerns in writing to be presented by a proxy.

Social Distancing

Social Distancing of 2 meters will be mandatory for all meeting Participants.

Personal Protective Equipment

Current advice for Nunavut concludes that non-medical facemasks are not mandatory for daily wear, NIRB will follow suit. The NIRB will supply daily masks for individuals who choose to wear them at Public Meetings, but they will not be mandatory until Public Health Orders change. If, during the meeting, social distancing cannot be maintained (i.e.: small meeting spaces, non-

compliant members of the Public on the 2-meter social distancing order, etc.) masks will become a mandatory requirement for entering the Public Meeting space.

Disposable Gloves will also be kept on site for safety measures and staff who may be required to handle sound equipment.

Where the NIRB is required to fly community members to be active in a meeting, each participating community will be provided with masks for air travel for their community representatives.

Hand Washing and Sanitizing

Prior to anyone entering the Public Meeting Space, all attendees must use hand sanitizer. The NIRB will hire a runner/dedicated staffer to dispense hand sanitizing solution to all persons coming into the meeting venue.

Cleaning and Disinfection

NIRB will ensure high touch areas, such as microphones and other shared sound gear, is disinfected prior to the next participant using the equipment. This will also be done for tables and chairs when Intervenors or Community Reps move from the Public Side of the Meeting to the Round Table. At the end of each day Audio/Video technicians will ensure all equipment is ready for the next day's use, including cleaning and disinfection.

Venue staff will be asked to do large cleaning at the end of each meeting day.

Ensuring Proper Protocol Regarding Social Distancing is followed

Each member of the Public who does not adhere to the social distancing requirement will receive one (1) warning. Further infractions will result in an individual being asked to leave the premises. Examples of noncompliance include: not physical distancing when seeing family members and friends from other communities, refusing the use hand sanitizer, trying to force entry when visibly sick.

Warnings will be included in a logbook of incidents for back-up purposes. NIRB Staff will make sure to use plain language and language of preference when communicating the warning and will ensure that the message is understood before logging the incident.

External Contractors

NIRB Audio / Sound technicians and Court Reporters will be hired through an outside firm from outside of the Government of Nunavut's Common Travel Area. The NIRB will be seeking to classify these external contractors as essential service workers given there are no service providers capable of conducting the required work in Nunavut. This means they will be required to isolate in their hotel accommodation outside of work hours, will wear a mask and disposable gloves, and return to their hotel accommodations at the end of each day with no interaction with the Public after the meeting. Although negative COVID-19 tests are not required for essential services through the Government of Nunavut's public health orders, the NIRB will insist that all external contractors provide evidence of a negative COVID-19 test before entering the territory.

Public Health and Health Centre

The NIRB will advise local health centers or public health units that a public meeting is scheduled in advanced so that they are aware of a large public gathering taking place. The NIRB will invite members of Public Health Office or the local Health Centre to provide opening remarks at the start of meetings in each Nunavut hub location. They will be invited to speak about social distancing and how to interact in a public space with other members of the public to ensure the safety of everyone. The NIRB will provide all COVID-19 action plans and measures for Public Safety to Public Health and local Health Centers.

Security

NIRB has decided against hiring an outside security firm, as this has negative implications in a neutral meeting space. The NIRB will endeavor to hire additional local people to help with venue sign-in, cleaning and disinfecting, and identifying individuals not from the same households who are not respecting the social distance rule. Individuals who do not adhere to the policies and procedures in place will be asked to leave the meeting venue and not come back. This includes community representatives.

Individuals who are visibly sick (in this case, with symptoms associated with Covid-19) will be asked to leave. The NIRB will create COVID-19 specific protocols and procedures for asking an individual to leave and associated documentation for transparency and fairness.

Signage

The NIRB will post current Publications and Signage from the Government of Nunavut and the Government of Canada at all venues. This will include signs on social distancing, handwashing, the Government of Nunavut COVID-19 hotline and other associated signage in English and Inuktitut. All safety measures will be posted in the venues in clearly visible locations.

Communications

All safety measures will be clearly communicated to Meeting Participants in advance through letters, emails and social media. All advice from the Chief Public Health Officer will be strictly followed and this shall be communicated to all meeting attendees.

Vulnerable Populations

The NIRB will outline the risk of attending large public gatherings to vulnerable groups in advanced. The definition of “Vulnerable populations” as outlined by the Government of Nunavut is:

- an older adult (aged 65 an older)
- underlying medical conditions (e.g. heart disease, hypertension, diabetes, chronic respiratory diseases, cancer)
- compromised immune system from a medical condition or treatment (e.g. chemotherapy)

NIRB will not bar community representatives with any of the above conditions from participating. This warning is to inform individuals of the risks of attendance.

Floor Plans

NIRB will implement floor plans including one direction walkways and social distancing seating arrangements.

Catering

Coffee and Tea services will not be offered during public meetings, as this leads to a bottleneck effect of many individuals grouped around a small area, with coffee and tea urns becoming highly touched surfaces. Bagged snacks will be offered to Community Reps with choice of individually packaged water bottles or individually packaged juice.

Policies and Procedures

Under the direction of the Executive Director or the Board, meetings may be paused under the following circumstances:

- an active COVID-19 case has been confirmed in the territory
- the Chief Public Health Officer issues instructions to close all public meetings
- The City or Municipality has issued direction to close all Public Meetings

In the event that the meeting is paused, all attendees will be informed they must return to their hotel room at once and await further announcements via Facebook, the local Community Radio Station or a phone call in the case of community representatives.

A separate policy will be created for NIRB staff on a suspected COVID-19 meeting attendee. This will include putting on a mask and disposable gloves prior to talking to the individual, documenting the incident and advising other floor staff of the incident.

If a Board Member becomes ill and needs to leave a Public Meeting, as long as there is quorum the meeting will not need to be paused.

SUMMARY OF KEY DATES

In closing, the following is a summary of the important upcoming tentative public meeting dates for various assessments and impacted communities:

Date	Community	Meeting purpose
August 20, 2020	Cambridge Bay	Annual monitoring update for Doris North, Hope Bay Phase 2 and Back River
August 24 – 25, 2020	Pond Inlet	Annual monitoring update and Marine Workshop for Mary River
August 24 – 25, 2020	Rankin Inlet	Annual monitoring update for Meliadine

August 27 – 28, 2020	Baker Lake	Annual monitoring update for Meadowbank and Whale Tail
September 28 – October 2, 2020	Pond Inlet With participants via audio/video links with Iqaluit, Ottawa and Winnipeg	Community Round Table and Pre-Hearing Conference for Mary River’s Phase 2 Project Proposal
November 23 – 26, 2020	Rankin Inlet	Technical Meeting, Community Round Table and Pre-Hearing Conference for Meliadine’s Saline Effluent Discharge Project Proposal

The NIRB thanks all parties for their continued active participation in the NIRB’s processes. Should you have questions or require any additional clarification regarding the upcoming COVID-19 measures at the various public meetings, please contact the NIRB’s Director, Finance and Administration: Mark Ings at (867) 983-4602 or via email at mings@nirb.ca.

Sincerely,

Karen Costello
Executive Director
Nunavut Impact Review Board

Appendix B: Record of Proceedings

Record of Proceedings

Project Proponent: Agnico Eagle Mines Limited

Positive Conformity Determination Received from the Nunavut Planning Commission: March 25, 2020

Date Reconsideration Commenced: June 9, 2020

Dates of Hearings: June 14-17, 2021

Board Members Present: Kaviq Kaluraq, Chair of Hearing
Phillip (Omingmakyok) Kadlun, Member
Allen Maghagak, Member

NIRB Board Staff: K. Costello, Executive Director
T. Arko, Director, Technical Services
K. Gillard, Manager, Project Monitoring
E. Koide, Technical Advisor I
E. Adjun, Outreach Coordinator
L. Atatahak, Administration Support

Board Legal Counsel: T. Meadows, Meadows Law

Interpreters: M.R. Angoshadluk, Interpreter
B. Dean, Interpreter
V. Strickland, Interpreter

Court Reporters: A. Vidal, CSR(A), Dicta Court Reporting Inc.
S. Burns, CSR(A), RPR, Dicta Court Reporting Inc

Sound Technician: O. Sirois
C. Burroughs

PARTIES

Proponent:

Agnico Eagle Mines Limited:

J. Quesnel, Director, Permitting and Regulatory Affairs
M. Groleau, Superintendent – Permitting and
Regulatory Affairs
C. Prather, Permitting - Water Quality
S. Leclair, Lead – Community/Consultation
R. Allard, General Supervisor Environment
L. Syvret, Senior Advisor
P. Kusugak, Director – Nunavut Affairs
J. Range, Golder Project Manager
C. De La Mare, Golder Terrestrial
D. Kritterdlik, Wildlife and IQ Coordinator
K. Tutanuak, Community Liaison in Rankin Inlet
C. Kowbel, Legal Counsel
M. Bradley, Superintendent–Community
/Consultation/Communication
G.A. Côté, General Supervisor – Community
/Consultation
C. Charest, Communications General Supervisor
A. Veillette, Senior Coordinator Community Relations
K. Mayrand, Director Shared Services Nunavut
P. Lapointe, Technical Advisor
M. Long, Construction Superintendent
C. Chok, Kirk & Company – Communication
A. Amendola, Golder – Risk Assessment
A. Hospital, Tetra Tech – Manager Air Coastal and
Lake Engineering
P. Lavoie, Director, Nunavut Service Group

Intervenors:

Nunavut Tunngavik Incorporated:

B. Dean, Assistant Director Wildlife and Environment
R. Mercer, Resource Management Coordinator
J. Eetoolook, Vice President
K. Kabloona, Chief Executive Officer
D. Kunuk, Chief Operating Officer
P. Irgaut, Director, Wildlife and Environment
D. Lee, Biologist, Wildlife and Environment
P. Lavallée, Consultant
A. Yuan, Legal Counsel
N. Gonzalez, Legal Counsel

Kivalliq Inuit Association:

K. Tattuinee, President
L. Manzo, Environmental and Engineering
D. Kuksuk, Vice President, Portfolio Lands
H. Niakrok Sr., Chief Operating Officer
A. Sexton, Geotechnical
J. King, Legal Counsel
K. Poole, Terrestrial Environment (Caribou)
R. Nesbitt, Aquatic Environment

Government of Nunavut:

G. Karlik, Assistant Deputy Minister Department EDT
S. Atkinson, Caribou and Wildlife Consultant
D. Wilson, Environment Human Health
H. Gretka, Environment Human Health
C. Ott, Environment Human Health Consultant
A. Simonfalvy, Avatilirinirq Coordinator
N. O'Grady, Manager, Mines & Minerals
A. Robinson, Manager, Land Use & Environmental Assessment
B. Pirie, Project Manager, Research & Monitoring
K. Sameer, Project Manager, Impact Assessment, Department of Environment
E. Stockley, Legal Counsel

Crown-Indigenous Relations and Northern Affairs Canada:

S. Dewar, Director, Resource Management
F. Ngwa, Manager, Impact Assessment
A. Roy, Senior Environmental
D. Abernethy, Regional Socioeconomic Analyst
A. Vigna, Environmental Policy Analyst
K. Pawley, Manager, Environmental Assessment
J. Walsh, Senior Environmental
L. Gracia-Zayas, Junior Policy Analyst
G. Wiatzka, Technical Expert - Arcadis Canada
T. Brown, Technical Expert - Arcadis Canada

Environment and Climate Change Canada:

V. Shore, Senior Environmental Assessment Officer
A. Wilson, Water Quality Expert

Fisheries and Oceans Canada: E. Ratajczyk, Biologist, Fish and Fish Habitat Protection Program
J. Audet-Lecouffe, Biologist

Health Canada: J. Kaushansky, Environmental Assessment Specialist
P. Partridge, Regional Manager Environmental Health Program
W. Wilson, Environmental Assessment Coordinator
C. Levicki, Environmental Assessment Technical Expert
E. Kalcsics, Environmental Engagement Specialist
T.T. Nguyen, Indigenous Engagement Specialist

Natural Resources Canada: P. Unger, Senior Environmental Assessment Officer
M. Genest, Environmental Assessment Officer

Transport Canada: S. Kidd, Regional Environmental Advisor
A. Downing, Regional Senior Environmental Supervisor
A. Champagne Gudmundson, Regional Manager, Environmental Program Prairie and Northern Region
K. Xian Au Yong, Officer Indigenous Relations
D. Hawkes, Regional Manger, Navigation Protection Program
K. Klarenbach, Regional Manager, Indigenous Relations Unit

Northern Project Management Office: A. Paradis, Sr. Project Manager
S. Hitchcox, Project Manager
N. D'Souza, Project Officer

Department of Justice (Canada): S. Gruda-Dolbec, Legal Counsel

Kivalliq Wildlife Board: C. Tartak, Research Coordinator

Aqigiq Hunters and Trappers Organization: H. Aggark, Chairperson, Aqigiq HTO

Arviat Hunters and Trappers Organization: T. Ubluriak, Board Member

Baker Lake Hunters and Trappers Organization: H. Putumiraqtuq, Vice Chairperson

Issatik Hunters and Trappers Organization: R. Kolit, Board Member [did not attend]

Kangiqliniq Hunters and Trappers Organization: A. Aokaut, (interim) Secretary Treasurer

Sayisi Dene First Nation: G. Bussidor, Chief Negotiator, Sayisi Dene First Nation
K. Olson, Legal Counsel
L. Wakelyn, Biologist
S. Kearney, Wildlife Biologist

Northlands Denesuline First Nation: B. Denechezhe, Chief Negotiator, Northlands Denesuline First Nation
K. Olson, Legal Counsel
L. Wakelyn, Biologist
S. Kearney, Wildlife Biologist

Community Representatives:

Arviat: A. Illungiyok, Arviat HTO
P. Alareak, Hamlet of Arviat
L. Amarudjuak, KIA Woman
S. Nipisar, KIA Youth

Baker Lake: P. Putumiraqtuq, Vice Chair, Baker Lake HTO
R. Aksawnee, Hamlet of Baker Lake
J. Joedee, KIA Elder
V. Joedee, KIA Woman
J. Mannik, KIA Youth

Chesterfield Inlet: J. Aggark, Hamlet of Chesterfield Inlet
L. Mimialik, KIA Elder
J. Amarak, KIA Youth

Rankin Inlet (only representatives that attended are listed here): T. Comer, Kangiqliniq HTO
L. Brown, KIA Elder

Whale Cove:

A. Noolook, Issatik HTO
G. Maktar, Hamlet of Whale Cove
P. Kabloona, KIA Elder
L. Saumik, KIA Youth

Appendix C: List of Exhibits from the Public Hearing

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
1.	June 14, 2021	<p>Hard Copy PowerPoint Presentation</p> <p>Meliadine Project—Overview Saline Effluent Discharge to Marine Environment Final Hearing June 14-17 (<i>English/Inuktitut</i>)</p> <p>NOTE: The version of this presentation as presented during the Public Hearing, included a digital rendering that was previously filed with the Board and is available on the NIRB's Public Registry (NIRB Document ID: 335403)</p>	Agnico Eagle Mines Limited
2.	June 14, 2021	<p>Electronic Copy</p> <p>Waterline FEIS Addendum List of Commitments as of June 14, 2021 Saline Effluent Discharge to Marine Environment (<i>English</i>)</p>	Agnico Eagle Mines Limited
3.	June 14, 2021	<p>Hard Copy PowerPoint Presentation</p> <p>Meliadine Project—Assessment Saline Effluent Discharge to Marine Environment Final Hearing June 14-17 (<i>English/Inuktitut</i>)</p>	Agnico Eagle Mines Limited

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
4.	June 14, 2021	Hard Copy PowerPoint Presentation Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet Technical Review of Final Environmental Impact Statement Addendum <i>(English/Inuktitut)</i>	Kivalliq Inuit Association
5.	June 14, 2021	Hard Copy PowerPoint Presentation Nunavut Tunngavik Incorporated Presentation Agnico Eagle Mines Limited's Saline Effluent Discharge to Marine Environment Project Proposal <i>(English/Inuktitut)</i>	Nunavut Tunngavik Incorporated
6.	June 15, 2021	Electronic Copy Resume of Richard A. Nesbitt <i>(English)</i>	Kivalliq Inuit Association
7.	June 15, 2021	Electronic Copy Resume of Kim Poole <i>(English)</i>	Kivalliq Inuit Association
8.	June 15, 2021	Electronic Copy Curriculum Vitae of Alan J. Sexton <i>(English)</i>	Kivalliq Inuit Association

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
9.	June 15, 2021	<p>Hard Copy PowerPoint Presentation</p> <p>NIRB Final Hearing Agnico Eagles Mines Limited's "Saline Effluent Discharge to Marine Environment" Project Proposal Government of Nunavut</p> <p><i>(English/Inuktitut)</i></p>	Government of Nunavut
10.	June 15, 2021	<p>Hard Copy PowerPoint Presentation</p> <p>Agnico Eagle's Meliadine "Saline Effluent Discharge to Marine Environment" Project Proposal NIRB Final Hearing Crown-Indigenous Relations and Northern Affairs Canada</p> <p><i>(English/Inuktitut)</i></p>	Crown-Indigenous Relations and Northern Affairs Canada
11.	June 15, 2021	<p>Hard Copy PowerPoint Presentation</p> <p>Agnico Eagle's Meliadine "Saline Effluent Discharge to Marine Environment" Project Proposal NIRB Final Hearing Crown-Indigenous Relations and Northern Affairs Canada</p> <p><i>(English/French)</i></p>	Crown-Indigenous Relations and Northern Affairs Canada
12.	June 15, 2021	<p>Hard Copy Power Presentation</p> <p>Environment and Climate Change Canada's Presentation to the Nunavut Impact Review Board Respecting the Meliadine Saline Effluent Discharge to the Marine Environment Amendment</p> <p><i>(English/Inuktitut)</i></p>	Environment and Climate Change Canada

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
13.	June 15, 2021	Hard Copy PowerPoint Presentation Agnico Eagle Mines Limited's "Saline Effluent Discharge to the Marine Environment" Project Presentation to the Nunavut Impact Review Board Department of Fisheries and Oceans Canada <i>(English)</i>	Fisheries and Oceans Canada
14.	June 15, 2021	Hard Copy PowerPoint Presentation Agnico Eagle Mines Limited's "Saline Effluent Discharge to the Marine Environment" Project Presentation to the Nunavut Impact Review Board Department of Fisheries and Oceans Canada <i>(Inuktitut)</i>	Fisheries and Oceans Canada
15.	June 15, 2021	Electronic Copy PowerPoint Presentation Saline Effluent Discharge to the Marine Environment Project Health Canada's Final Hearing Presentation <i>(English/Inuktitut)</i>	Health Canada
16.	June 15, 2021	Hard Copy PowerPoint Presentation Transport Canada FINAL HEARING PRESENTATION Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment" Project <i>(English)</i>	Transport Canada

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
17.	June 15, 2021	Hard Copy PowerPoint Presentation Transport Canada FINAL HEARING PRESENTATION Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment" Project <i>(Inuktitut)</i>	Transport Canada
18.	June 16, 2021	Hard Copy PowerPoint Presentation Saline Effluent Discharge to Marine Environment Project Proposal Final Presentation: Kivalliq Wildlife Board and Kivalliq Hunters and Trappers Organizations <i>(English/Inuktitut)</i>	Kivalliq Wildlife Board and Kivalliq Hunters and Trappers Organizations
19.	June 16, 2021	Hard Copy PowerPoint Presentation Presentation from Sayisi Dene First Nation and Northlands Denesuline First Nation NIRB Public Hearing – Technical Session: "Saline Effluent Discharge to Marine Environment" Project Proposal for Agnico Eagle's Meliadine Mine <i>(English/Inuktitut)</i>	Sayisi Dene First Nation and Northlands Denesuline First Nation
20.	June 17, 2021	Electronic Copy Letter from L. Dyer, Director General, Northern Projects Management Office to K. Costello, Executive Director, NIRB, dated June 17, 2021 RE: Programs to Support Community-Based Monitoring – Agnico Eagle's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine" Project Proposal <i>(English)</i>	Northern Projects Management Office

Exhibit	Date of Receipt	Exhibit Description	Party Tendering Exhibit
21.	June 17, 2021	Electronic Copy Waterline FEIS Addendum List of Commitments as of June 17, 2021 Saline Effluent Discharge to Marine Environment <i>(English)</i>	Agnico Eagle Mines Limited
22.	June 17, 2021	Electronic Copy Correspondence (and attachment) from G. Bussidor, Chief Negotiator Sayisi Dene First Nation and B. Denechezhe, Chief Negotiator Northlands Denesuline First Nation to K. Costello, Executive Director, NIRB, dated June 17, 2021 RE: Sayisi Dene and Northlands Denesuline Technical Presentation re: Agnico Eagle's "Saline Effluent Discharge to Marine Environment" Project Proposal <i>(English)</i>	Sayisi Dene First Nation and Northlands Denesuline First Nation
23.	June 17, 2021	Electronic Copy To Nunavut Impact Review Board from the Kivalliq Inuit Association Lands Department, dated June 17, 2021 Proposed Terms and Conditions and Commitments for NIRB File No.: 11MN034 <i>(English)</i>	Kivalliq Inuit Association

Appendix D: List of Acronyms

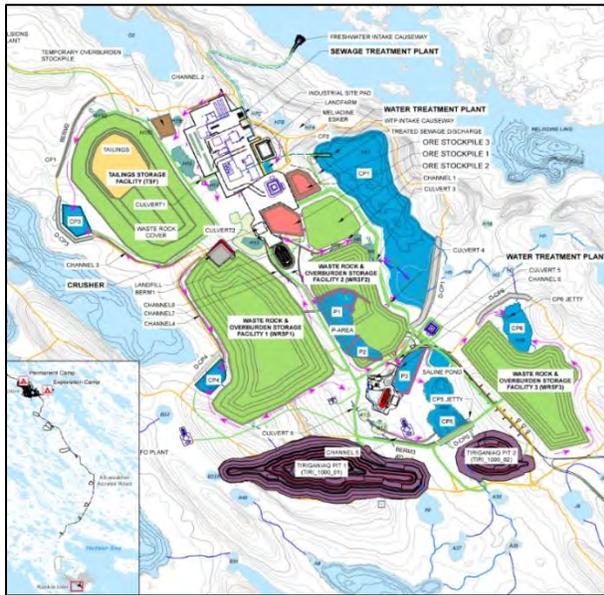
AFSAR	Aboriginal Fund for Species at Risk
Agnico Eagle or Proponent	Agnico Eagle Mines Limited
AWAR	All-weather Access Road
BC MOE	British Columbia Ministry of the Environment
CCME	Canadian Council of Ministers of the Environment
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
<i>CNWA</i>	<i>Canadian Navigable Waters Act</i>
Commission	Nunavut Planning Commission
COVID-19	Novel Coronavirus
DFO	Fisheries and Oceans Canada
ECCE	Environment and Climate Change Canada
EIS or IS	Environmental Impact Statement or Impact Statement
FEIS	Final Environmental Impact Statement
ICCE	Indigenous Centre for Cumulative Effects
IS Addendum	Supplement to the FEIS of a previously-approved project
GN	Government of Nunavut
HC	Health Canada
HDD	Horizontal directional drilling
HHRA	Human Health Risk Assessment
HTO	Hunters and Trappers Organization
IR	Information Request
KIA	Kivalliq Inuit Association
km	Kilometres
KWB	Kivalliq Wildlife Board
m	Metres
MPC	Marine Planning Conservation funding
<i>MDMER</i>	<i>Metal and Diamond Mining Effluent Regulations (SOR/2002-222)</i>
NDFN	Northlands Denesuline First Nation
NIRB or Board	Nunavut Impact Review Board

NGMP	Nunavut General Monitoring Plan
NRCan	Natural Resources Canada
<i>Nunavut Agreement</i>	<i>Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada</i>
<i>NuPPAA</i>	<i>Nunavut Planning and Project Assessment Act, S.C. 2013, c. 14, s. 2</i>
NTI	Nunavut Tunngavik Incorporated
NWB	Nunavut Water Board
PHC	Pre-Hearing Conference
SDFN	Sayisi Dene First Nation
TAG	Terrestrial Advisory Group
TC	Transport Canada
TEMMP	Terrestrial Environment Management and Monitoring Plan
TDS	Total Dissolved Solids
VEC	Valued Ecosystemic Component
VSEC	Valued Socio-Economic Component

Appendix E: The NIRB Highlights Document

The Original Meliadine Gold Mine Project

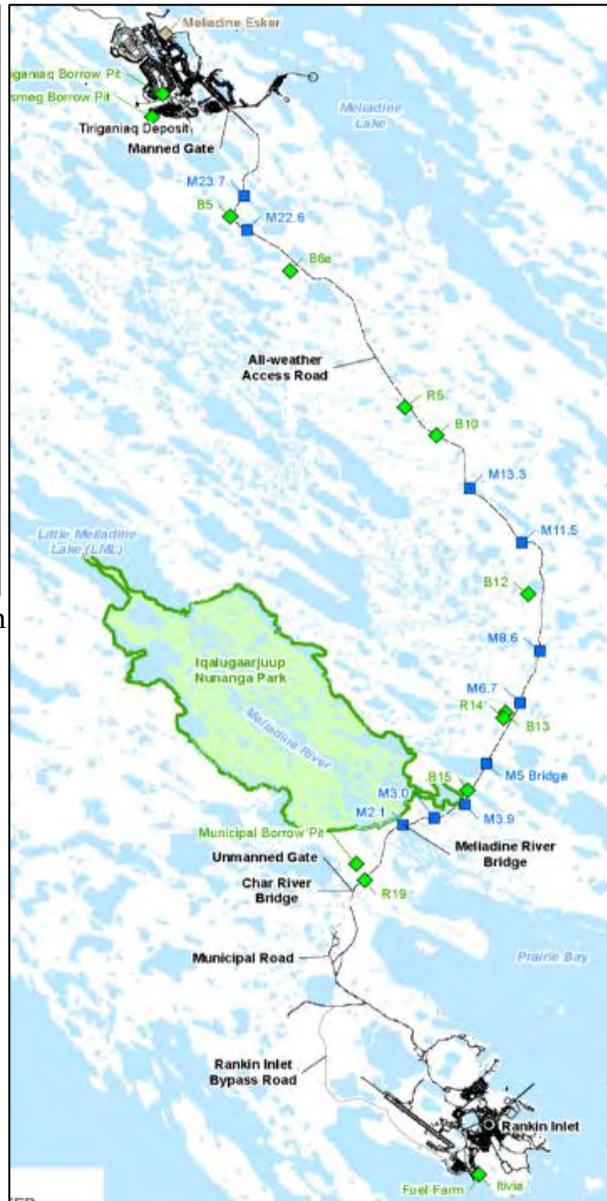
Agnico Eagle is currently operating the Meliadine Gold Mine Project (approved by the NIRB in 2014 under a Project Certificate with 127 Terms and Conditions), located in the Kivalliq region of Nunavut. The approved mine plan outlines mining methods for the development of the five (5) separate mineral deposits in a phased approach, with Phase 1 focused on the underground and open pit mining of the Tiriganiaq deposit. The main mine components include the Meliadine Gold Mine site which is 25 kilometres (km) from Rankin Inlet, Itivia Harbour (the fuel storage facility in Rankin Inlet) and the all weather access road (AWAR) and bypass road which connects the mine site to Itivia Harbour around the community of Rankin Inlet.



Meliadine Gold Mine Site 25 km from Rankin Inlet



Itivia Harbour Fuel storage facility at Rankin Inlet's Melvin Bay

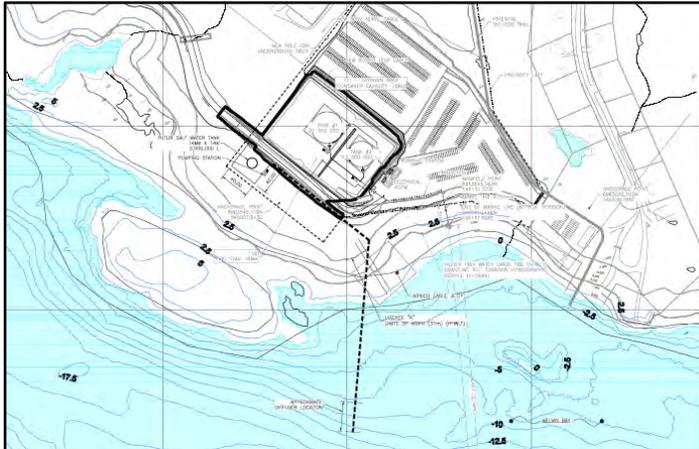


All Weather Access Road and Bypass Road Connects the Meliadine Gold Mine Site to Itivia Harbour

Source Images: Agnico Eagle

The First Saline Effluent Discharge to Marine Environment Project Proposal

In 2018, Agnico Eagle had more saline effluent (salty or saline groundwater) from the Tiriganiaq underground mine than predicted and submitted an application to allow Agnico Eagle to truck this saline effluent to Melvin Bay for discharge through a subsea pipeline and diffuser into the ocean. Later that year, the NIRB approved the activities and revised existing Terms and Conditions (including adding four (4) new Terms and Conditions) to allow the proposal to proceed.



Subsea Pipeline and Diffuser

Source Images: Agnico Eagle

Amendment 1 to Project Activities:

- Trucking: 16 round trips/day from mine site to Itivia Harbour
- Discharge: 800 m³/day of saline effluent into Melvin Bay
- Activities to occur only during the open water season

The Waterlines Proposal

The Waterlines Proposal was forwarded to the NIRB in March 2020 and involves increases in the amount of saline effluent discharged to Melvin Bay to manage higher than expected groundwater inflows to the Tiriganiaq Underground Mine through 2 waterlines rather than trucking. The waterlines would be installed along the all-weather access road (AWAR) and bypass road, for discharge into the marine environment at Melvin Bay.

The Scope

Installation and operation of dual waterlines from the Meliadine mine site to the Itivia facility:

- Two (2) lines of 16-inch diameter pipe, running alongside the existing roads

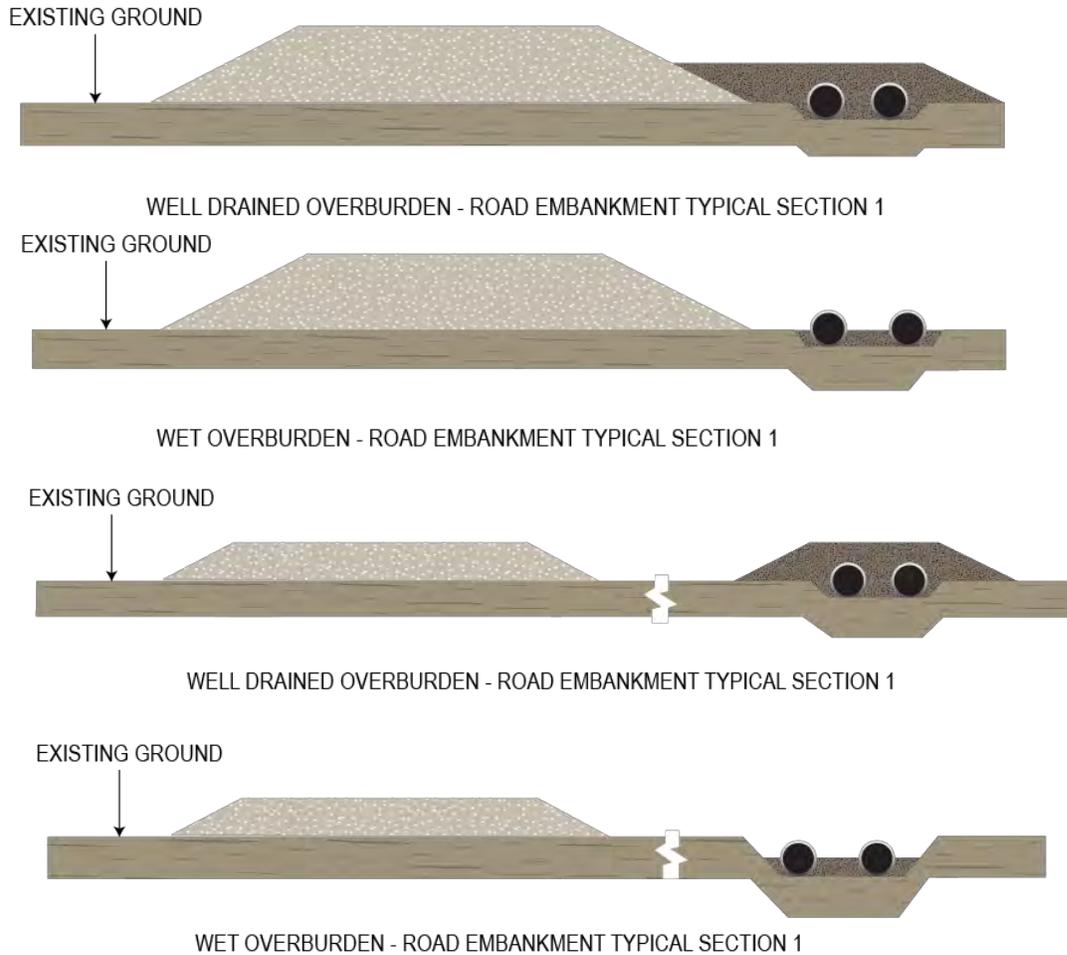


Example Waterline Section Displayed by Agnico Eagle at the Public Hearing

- Approximately 80 to 90% of the waterlines' length to be covered by esker material;



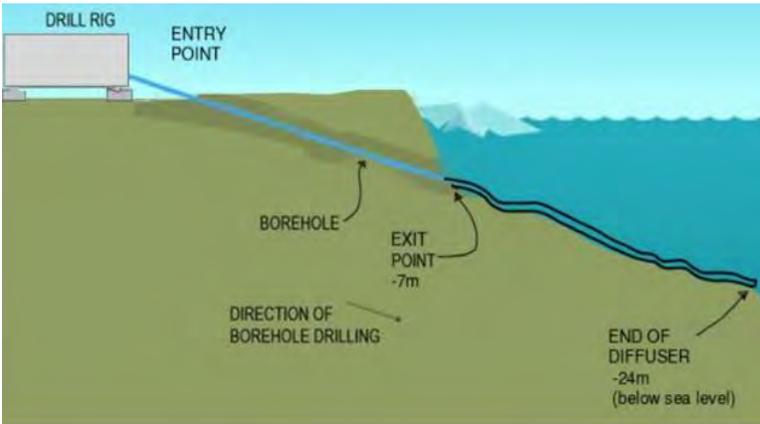
Example Esker Material Displayed by Agnico Eagle at the Public Hearing



Proposed Waterlines Along the Project Roads

Source Images: Agnico Eagle

Installation, operation, and decommissioning of a new pipeline extending from the pump house at the existing Itivia facility to a discharge location in Melvin Bay:



Proposed Subsea Pipeline at Itivia Harbour

Source Images: Agnico Eagle

- Discharge location approximately 250 metres (m) or 820 feet northwest of the existing approved pipeline;
- Use of horizontal directional drilling (HDD) method to construct an underground corridor for the pipeline;
- Pipeline would extend underground from the pump house to approximately 7 m or 23 feet depth below the water surface, and continue on the sea floor to an engineered diffuser at 20 m or 66 feet depth; and
- Pipeline would remain in place following the decommissioning of the facility.

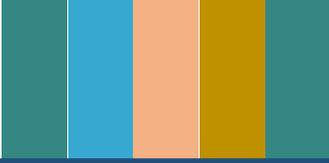
Release of treated saline effluent into Melvin Bay at a rate of 6,000 m³/day* to a maximum of 12,000 m³/day* during the open water season. It was also proposed that Agnico Eagle may sometimes reroute on-site treated surface contact water for discharge to the marine environment via the pipeline to reduce volume being discharged to Meliadine Lake. Maximum volume of 8,000 m³/day to be discharged of on-site treated surface contact water, for a total maximum volume of 20,000 m³/day* water transported and discharged daily during the open water season through the waterlines to the marine environment.



Proposed Diffuser in Melvin Bay

Source Images: Agnico Eagle

*6,000 m³/day = 6,000,000 litres/day or approximately 1,319,815 gallons/day
 12,000 m³/day = 12,000,000 litres/day or approximately 2,639,631 gallons/day
 20,000 m³/day = 20,000,000 litres/day or approximately 43,993,849 gallons/day



Procedural History of the Project Proposal

The key procedural steps that occurred throughout the NIRB's assessment for the Public Hearing.



How did COVID-19 Affect the NIRB's Process?

The COVID-19 pandemic has been challenging for Nunavummiut and Canadians, and the NIRB has had to adapt its usual practices to advance the assessment. For this assessment, the Board's process was interrupted twice, but by following public health requirements and the use of technology (having audio/video access to proceedings), the Board completed the assessment process without sacrificing its objectives. The Board appreciates the adaptability, flexibility, and good humour shown by everyone participating in the assessment during these challenging times.

Section 2: Public Consultation Opportunities

Public consultation included opportunities for both written and oral questions and comments throughout the process:

Community members:

- 2 Information Sessions in Rankin Inlet and 1 each in Arviat, Baker Lake, Chesterfield Inlet, and Whale Cove
- 2 Community Roundtables; 1 with the Pre-Hearing Conference and 1 as part of the Public Hearing
- Opportunities to provide written comments at the Public Meetings and electronically via the NIRB Public Registry

Interested Parties:

- 3 opportunities for written comments: Information Requests, Technical Review Comments, and final written submissions
- 2 Technical Meetings; 1 in advance of the Pre-Hearing Conference and 1 as part of the Public Hearing



Rankin Inlet August 24, 2020



Rankin Inlet October 6, 2020



Whale Cove October 5, 2020



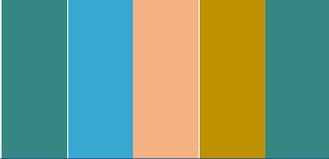
Baker Lake October 7, 2020



Chesterfield Inlet October 8, 2020



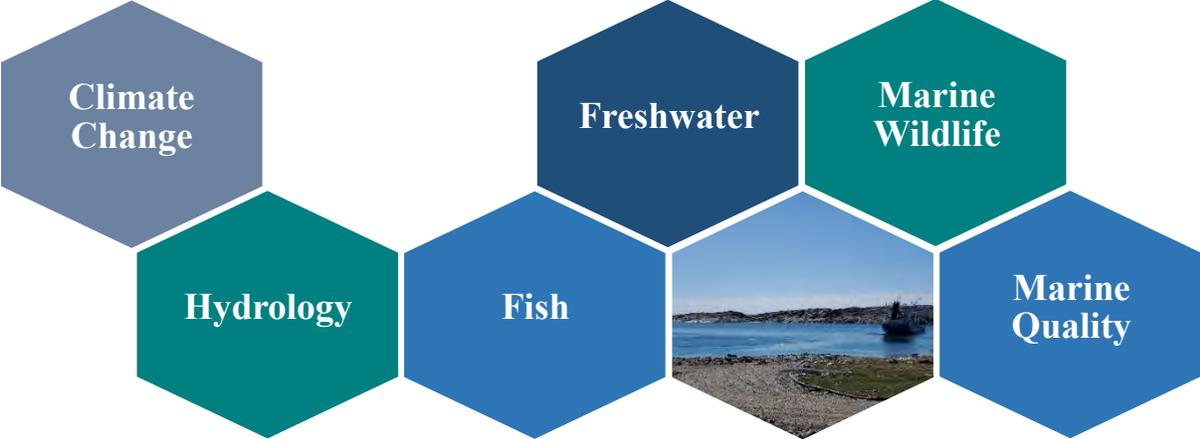
Arviat October 9, 2020



Section 3: Summary of Agnico Eagle’s Assessment

Within Agnico Eagle’s Impact Statement Addendum, the following changes to **ecosystemic (environmental) effects** were predicted to result from the Waterlines Proposal:

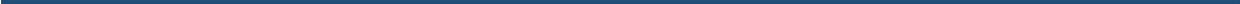
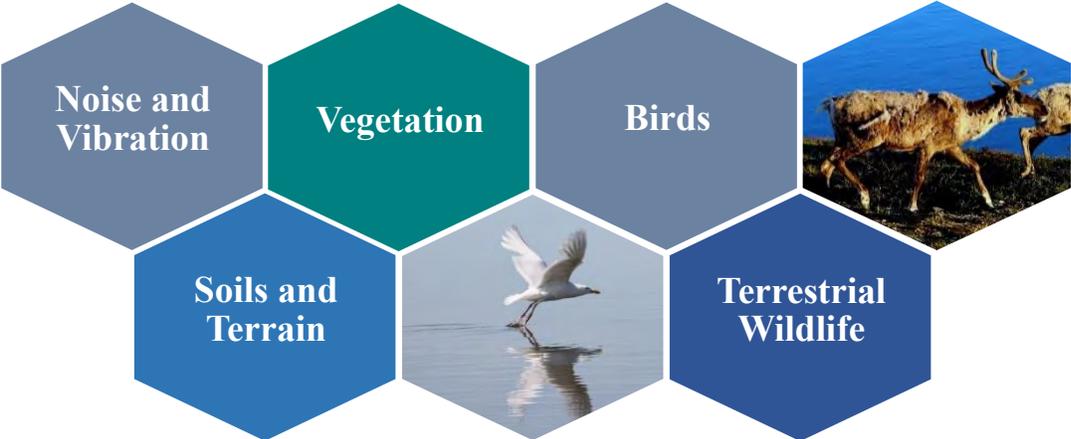
No Change

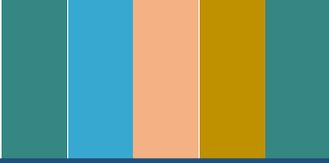


Positive Effects



Minor Impacts





Within Agnico Eagle’s Impact Statement (IS) Addendum, the following changes to **socio-economic effects** were predicted to result from the Waterlines Proposal:

No Change

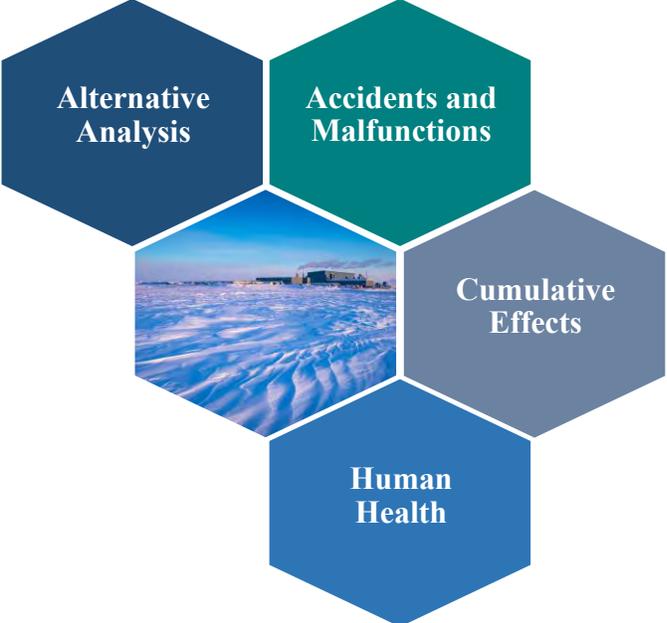


Minor Impacts



Within Agnico Eagle’s Impact Statement Addendum, the following **other issues** were predicted to result from the Waterlines Proposal:

Minor Impacts



Agnico Eagle’s Conclusions:
 “The incremental and cumulative changes to the marine environment and the terrestrial environment should not have a significant impact on the structure and function of populations and communities in the ecosystem relative to natural factors occurring over the same period of time and space. Subsequently, the Project should not have a significant adverse impact on the continued opportunity for traditional and non-traditional use of marine wildlife or caribou in the region and marine wildlife.”
 –Agnico Eagle 2020 IS Addendum

Section 4: Key Issues Heard by the Board

Comments from the Community

Throughout the assessment the Board heard questions, comments and concerns from Community Representatives and the public about the following topics:

Ecosystemic

- Air Quality
- Saline Groundwater Management
- Climate Change
- Marine Water Quality
- Caribou
 - Migration
 - Barriers
 - Noise and vibration
- Marine Species Health (including fish)

Socio-Economic

- Archaeology
- Traditional Land and Resource Use
 - Food Security
 - Harvesting
 - Traditional food
- Employment
- Inuit Qaujimaningit and Inuit Qaujimajatuqangit
 - Communication

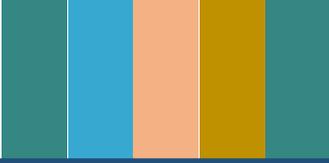
Other Issues

- Monitoring of the Meliadine Project
- Construction, Operation, and Reclamation of Waterlines
- Accidents and Malfunctions
- Community-based Monitoring
- Cumulative Effects



Registered Intervenor

- Nunavut Tunngavik Incorporated (NTI)
 - Kivalliq Inuit Association (KIA)
 - Government of Nunavut (GN)
 - Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)
 - Environment and Climate Change Canada (ECCC)
 - Fisheries and Oceans Canada (DFO)
 - Health Canada (HC)
 - Transport Canada (TC)
 - Natural Resources Canada (NRCan)
 - Kivalliq Wildlife Board (KWB)
 - Aqigiq Hunters and Trappers Organization
 - Arviat Hunters and Trappers Organization
 - Baker Lake Hunters and Trappers Organization
 - Issatik Hunters and Trappers Organization
 - Kangiqliniq Hunters and Trappers Organization
 - Sayisi Dene First Nation (SDFN)
 - Northlands Denesuline First Nation (NDFN)
-



Comments from the Registered Intervenors

In advance of the Public Hearing, Registered Intervenors submitted final written submissions about the following topics:

Ecosystemic

- Impacts of the waterlines to the movement of caribou
- Establishment of a Terrestrial Advisory Group (TAG) and how this group would advise monitoring and assessment of impacts to caribou
- Regional and cumulative impacts to caribou
- Saline effluent water quality
- Monitoring of impacts to the marine environment

Socio-Economic

- Use of Inuit Qaujimagatuqangit to inform the TAG and monitoring and management plans
- Capacity of community-based organizations to participate in the TAG
- Impacts to harvesting and culture

Other Issues:

- Alternative analysis of increased discharge to include discharge of surface contact water preferred to decrease discharges to Meliadine Lake
- Impacts to marine country food from saline effluent
- Impact of waterlines spills to the terrestrial and freshwater environments

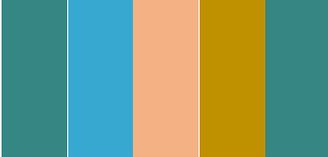
Commitments

Throughout the assessment Agnico Eagle made 43 commitments to Registered Intervenors and nine (9) commitments from community consultation. These commitments cover topics including:

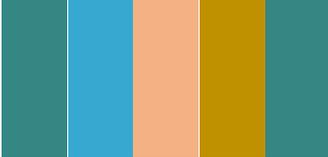
- Installation and Operation of the waterlines including spill planning
 - Cover over waterlines
 - Additional mitigation measures for bridge crossings
- Monitoring
 - Caribou protection measures, studies, and analysis
 - Marine studies
 - Revisions to existing plans
- Creation of a Terrestrial Advisory Group
- Having a toll-free number for community members to report problems along the waterlines

Section 5: Conclusions and Recommendations of the Board

The Board listened to questions, comments, and concerns from members of the impacted communities, Hunters and Trappers Organizations, the Kivalliq Wildlife Board, Inuit Organizations, transboundary groups, government departments, and Agnico Eagle. All of the information and knowledge shared with the Board contributed to the Board's consideration of the Waterlines Proposal and to our understanding of the potential for effects on the environment, Nunavummiut, and Canadians. Inuit Qaujimagatuqangit, and traditional and community knowledge played a central role in the Board's assessment and recommendations.

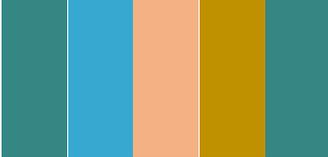


Ecosystemic Effects	Air Quality Emissions, Dust, and Noise	<ul style="list-style-type: none"> ▪ Changing from trucking to using waterlines to transport the saline effluent from the mine site to Itivia Harbour will reduce traffic - this change is predicted to reduce greenhouse gas emissions, dust, noise, and effects on caribou (and other wildlife) affected by traffic; and ▪ Enhanced monitoring will be required to check whether these impacts are reduced when the waterlines are in use.
	Freshwater Quality, and Fish and Fish Habitat	<ul style="list-style-type: none"> ▪ Effects on the freshwater environment (including fish and fish habitat) will be limited by the design of the waterline (e.g., attaching it to existing bridges), existing mitigation and monitoring plans, leak detection and updates to spill prevention and response plans.
	Vegetation, Soil, and Terrain	<ul style="list-style-type: none"> ▪ Existing mitigation and monitoring programs, including continuous leak detection systems along the waterlines, will limit the potential for effects on vegetation, soil, and permafrost.
	Terrestrial Wildlife (including caribou).	<ul style="list-style-type: none"> ▪ Aligning the waterlines with the existing all-weather access road (AWAR) and covering the waterlines is predicted to limit the effects on caribou movement; ▪ Updates to the assessment of how caribou movement has been affected by the existing Meliadine Gold Mine Project (including the AWAR) are required so that the positive or negative effects on caribou from the installation and operation of the waterlines can be understood; ▪ Agnico Eagle will seek out advice regarding Inuit Qaujimagatuqangit, traditional and community knowledge, and scientific expertise and will work collaboratively with a Terrestrial Advisory Group (TAG) to update management, mitigation and monitoring plans in the terrestrial environment; and ▪ The TAG includes participation from hunters and trappers organizations in the Kivalliq region, Inuit Organizations, government agencies and transboundary groups interested in working with Agnico Eagle to improve Agnico Eagle’s plans and to address uncertainties about potential project-effects on caribou, other terrestrial wildlife and wildlife habitat.
	Water Quality	<ul style="list-style-type: none"> ▪ Noting that the water in the waterlines will be treated to meet regulatory standards, it is predicted that the water will be similar to the quality of ocean water within 100 metres of where it is released into the ocean; and ▪ Updates to existing ocean discharge monitoring are required to confirm whether these predictions are correct.



Ecosystemic Effects	Marine sediment	<ul style="list-style-type: none"> ▪ The horizontal directional drilling method of installing the new subsea pipeline into the ocean seabed will help protect against erosion in the ocean and will prevent the pipeline into Melvin Bay being broken by ice scour; and ▪ Agnico Eagle will either remove the existing pipeline and diffuser to be replaced by the new subsea pipeline and diffuser or will provide the NIRB with information to support leaving it in Melvin Bay.
	Marine Wildlife	<ul style="list-style-type: none"> ▪ Effects on marine species such as fish, mammals or their food sources will be prevented by ensuring water discharged from the waterlines meets regulatory standards ensuring the water is not toxic; and ▪ To further protect marine wildlife, Agnico Eagle is required to also monitor for effects on marine species related to long-term survival, growth, and/or reproduction.

Socio-economic Effects	Heritage Resources and Employment	<ul style="list-style-type: none"> ▪ Complying with regulations and plans already in place for the Meliadine Gold Mine Project will protect heritage resources; ▪ Agnico Eagle committed to ensuring that there will be no drop in Inuit employment even after trucking jobs are reduced when the waterlines begin operation.
	Traditional Land and Resources Use	<ul style="list-style-type: none"> ▪ To ensure that caribou and land users maintain access to the land surrounding the Meliadine Gold Mine site, Agnico Eagle will be required to carefully monitor if caribou and land users are able to cross the covered waterlines and the AWAR.
	Inuit Qaujimajatuqangit	<ul style="list-style-type: none"> ▪ The Board heard from the Kivalliq communities that all parties, including Agnico Eagle, regulatory authorities and the NIRB need to communicate more clearly about development projects, how they are assessed, how project-effects are being adaptively managed and monitored and how communities will be kept informed; ▪ The importance of respect, and trust being developed amongst all parties was expressed; and ▪ It was noted that Agnico Eagle and regulatory authorities need to improve how Inuit Qaujimaningit, Inuit Qaujimajatuqangit, traditional and community knowledge is collected, confirmed, considered, and communicated back to the communities, Elders, and knowledge holders.
	Human health	<ul style="list-style-type: none"> ▪ The Board heard that communities have concerns about whether the Waterlines Proposal could have impacts on the accessibility, harvest, and safety of country food; and ▪ Although the human health assessment did not predict effects on these activities, Agnico Eagle committed to the Kivalliq Wildlife Board to carry out a community-based shellfish monitoring program in the areas used to harvest shellfish by Rankin Inlet residents.



Other Issues Considered by the Board	Adaptive Management Plan	<ul style="list-style-type: none">▪ Agnico Eagle submitted an Adaptive Management Plan to describe how water such as salty groundwater and surface contact water (snow, rain, and runoff that contacts the mine site) would be managed and under what conditions surface contact water would be released into Melvin Bay or into Meliadine Lake; and▪ The Board has considered the adaptive management measures included in the Adaptive Management Plan to understand how Agnico Eagle intends to adapt and respond to water management issues at the mine site.
	Accidents and Malfunctions	<ul style="list-style-type: none">▪ The Board heard that communities were concerned about the potential for spills from the waterlines to impact freshwater, the areas surrounding the waterlines and wildlife such as caribou;▪ Agnico Eagle is required to report on how its leak detection, spill prevention and clean-up plans are working throughout the life of the waterlines; and▪ Agnico Eagle is required to provide a plain-language summary of how the waterlines system is constructed and monitored for parties and the public to understand.
	Cumulative Effects	<ul style="list-style-type: none">▪ The Board heard that Intervenor and communities were concerned that the effects of the waterlines, could combine with the effects of other project infrastructure such as the AWAR, other activities in the area, such as helicopter/air traffic, and climate change to have significant effects on caribou, marine wildlife and the marine environment; and▪ The Board concluded that if Agnico Eagle complies with the Board's recommendations to limit the potential for effects on caribou, marine wildlife and the marine environment, the potential for cumulative effects will also be addressed.
	Transboundary Effects	<ul style="list-style-type: none">▪ The Board has not made a finding that transboundary effects will be associated with the Waterlines Proposal, but uncertainty exists regarding the potential for effects on caribou that could ultimately lead to transboundary impacts; and▪ The Board's recommendations that are designed to minimize the potential for effects on caribou and inclusion of transboundary groups in the TAG will ensure the issue of transboundary effects is included in the review and improvement of Agnico Eagle's caribou management and monitoring plans.

In conclusion, the Board has determined that the Waterlines Proposal can move to the permitting and licensing stage and that the potential for ecosystemic or socio-economic effects to occur can be managed through:

- Commitments made by the Proponent;
- Mitigation and monitoring measures;
- Revised and new Terms and Conditions proposed by the Board; and
- The subsequent completion of the licensing and permitting processes.

Next Steps

1. After receiving the Board's Report and Recommendations, the Responsible Minister(s) will review it and issue a written response, indicating whether the Minister(s):
 - a. Accepts the Board's report and recommended changes and additions to existing Terms and Conditions in the Project Certificate;
 - b. Rejects the Board's recommendations; or
 - c. Varies the Board's recommendations and provides the Minister's own version of the changes and additions to the Terms and Conditions in the Project Certificate that the Minister(s) considers to be necessary.
2. Within 30 days of receiving the Minister(s) decision, if the Minister agrees that the Waterline Proposal can proceed to the licencing stage, the NIRB must update and finalize the changes to the Terms and Conditions in the Project Certificate. To help finalize the changes to the Project Certificate, the Board hosts a workshop for everyone to discuss the amended Project Certificate and talk about how the Terms and Conditions will be implemented and discuss any wording that is unclear.



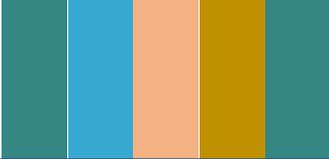
Terms and Conditions that have been revised:

Hydrogeology and Groundwater:
25
Terrestrial Wildlife and Wildlife Habitat:
44, 53, 54, 57
Accidents and Malfunctions:
118, 119, 124, 125
Marine Environment:
128, 130

NEW Terms and Conditions:

Terrestrial Wildlife and Wildlife Habitat:
132
Marine Environment
133
Accidents and Malfunctions
134

3. Once the Amended Project Certificate is released, the NIRB continues to work with Agnico Eagle, regulators and interested parties to monitor the effects of the Meliadine Gold Mine Project and the Waterlines Proposal under the amended Project Certificate.



ᐃᑕᑦᑎᑦᑎᑦᑎᑦ 3: ᐃᐃᐅᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦ ᑦᑎᑦᑎᑦᑎᑦᑎᑦ

ᐃᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᑎᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑕᑕᑦᑎᑦᑎᑦᑎᑦᑎᑦ, ᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ:

ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ



ᐃᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ ᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ



ᑦᑎᑦᑎᑦᑎᑦᑎᑦᑎᑦ



