AGNICO EAGLE

February 15th, 2018

Sophia Granchinho
Manager, Impact Assessment - Nunavut Impact Review Board
29 Mitik St P.O. Box 1360
Cambridge Bay, NU. X0B 0C0

RE: Request for Opinion as to whether Agnico Eagle Mines Ltd.'s "Inpit Tailings Disposal Modification" Project Proposal is a Significant Modification to an Existing Project

Dear Ms. Granchinho,

Agnico Eagle thanks the Nunavut Impact Review Board (NIRB) for the opportunity to address its letter to the Nunavut Planning Commission (NPC) of January 31, 2018, entitled "Request for Opinion as to whether Agnico Eagle Mines Ltd.'s "Inpit Tailings Disposal Modification" Project Proposal is a "Significant Modification" to an Existing Project". Further to our letter to NPC of December 18, 2017 (copied to NIRB and Nunavut Water Board (NWB)), NIRB has indicated that additional information is required by the NIRB to fully consider the significance of the modifications proposed, as well as to determine whether or not the proposed works/activities will trigger a formal reconsideration of the terms and conditions of Project Certificate No. 004 pursuant to Article 12, Section 12.8.2 of the Nunavut Agreement and s. 112(1) of the Nunavut Planning and Project Assessment Act (NuPPAA).

Agnico Eagle is pleased to provide the additional information requested, as well as to provide further context for its conclusion that the In-Pit Tailings Disposal Modification is not a significant modification to the Meadowbank Mine and that the In-Pit Tailings Disposal Modification should not trigger a formal reconsideration of Project Certificate No. 004. Specifically, the following letter and attachments provides the NIRB with a notice as per PC No. 004 Condition 29, and further details respecting the In Pit Disposal Modification, s. 90 self-assessment, response to NIRB's January 31, 2018 supplemental information requirements. Agnico Eagle has undertaken an assessment of its existing approvals to identify whether any amendments or modifications would be triggered by the proposed In-pit Tailings Disposal Modifications. As a result of engagement with NWB staff, Agnico Eagle has identified that a modification to Type A 2AM MEA1525 is required, and further details of the modification process are also set out in this letter.

1.1 Modification Description

While Agnico Eagle is not proposing to expand the Meadowbank Gold Mine, as the proposed In-pit Tailings Disposal Modification affects the selection of Second Portage Lake as the preferred alternative for tailings management, Agnico Eagle submitted its correspondence of

December 18 2017, as well as this letter to NPC and NIRB to ensure compliance with Condition 29. NIRB Project Certificate No.4 Condition 29 states the following:

Project Alternatives and Planned Changes

29. Cumberland shall report to NIRB if and when Cumberland develops plans for an expansion of the Meadowbank Gold Mine, and in particular if those plans affect the selection of Second Portage Lake as the preferred alternative for tailings management.

Agnico Eagle is reporting to NIRB its modification of the activities at the Meadowbank Mine to place tailings within the existing areas of disturbance (pits) at the Meadowbank mine site. Agnico Eagle currently places all tailings at the Meadowbank Mine in the Meadowbank Tailings Storage Facility (within the former Second Portage Lake northwest dewatered arm), where tailings have been deposited sub-aerially as slurry and water from the ponds reclaimed during operation. Since mining began at the Meadowbank Mine, Agnico Eagle has continued to evaluate alternative options for tailings deposition, in order to ensure that best practices are followed and to ensure appropriate long term planning to optimize the site footprint. This is a requirement of NIRB Project Certificate No.4 condition 18, which states:

18. Cumberland shall commit to a pro-active tailings management strategy through active monitoring, inspection, and mitigation. The tailings management strategy will include the review and evaluation of any future changes to the rate of global warming, compliance with regulatory changes, and the ongoing review and evaluation of relevant technology developments, and will respond to studies conducted during the mine operation.

Specifically, Agnico Eagle has continued to evaluate alternative options for tailings deposition, reviewed Cumberland (2007) and has completed an updated Tailings Management Multiple Accounts Analysis (SNC, 2016).

Based on observations, the Central Dike has increased seepage at the downstream toe of the Central Dike as compared to modelling. In 2016, the Meadowbank Dike Review Board (the "MDRB"), an Independent Geotechnical Expert Review Panel established in accordance with Type A Water Licence No: 2AM-MEA1525 per Part I Item 12**,** supported the use of early in-pit tailings disposal as an appropriate alternative for tailings storage; which will mitigate South Cell Tailings Storage Facility seepage and will provide future pro-active tailings management.

In 2016, following the recommendation of the Meadowbank Dike Review Board (MDRB, 2016), Agnico Eagle evaluated alternatives for disposing of tailings in Meadowbank Mine by performing a Multiple Account Analysis (SNC, 2016). In-Pit disposal was designated as the best deposition technique and prefeasibility engineering study was completed in September 2017. Specifically, in-pit disposal of tailings has advantages with respect to health and safety, quality of life, water, air, capital cost, technology, natural hazards and adaptability. The MDRB accepted that in-pit disposal would be recognized as the best available technology. Based on this feedback, and the results of the MAA, Agnico Eagle has made pragmatic decisions and

followed a tiered approach to decision making which has resulted in a proposal to dispose of tailings in three pits, Portage Pit A, Portage Pit E, and Goose Pit, all within the footprint of the assessed and approved Meadowbank Mine.

The In-pit tailings disposal in the Portage and Goose pits will not increase the mine footprint, and will occur entirely within existing pits that have already been assessed, reviewed, authorized and impacted by approved mine activities. As the In-Pit Disposal Modification is a prudent mitigation measure to ensure that the operation of the Meadowbank mine continues under the safest conditions.

The location of the Portage and Goose pits within the mine site is shown on Figure 1 below. This method of tailings disposal will require the continued use of various existing project components, including the following:

- pits and dikes to segregate operations from Third Portage Lake and Second Portage Lake;
- the reclaim water barge;
- the tailings deposition barge; and
- the closure reclaim water treatment plant.

The modification will also require an extension of the slurry and reclaim water piping.

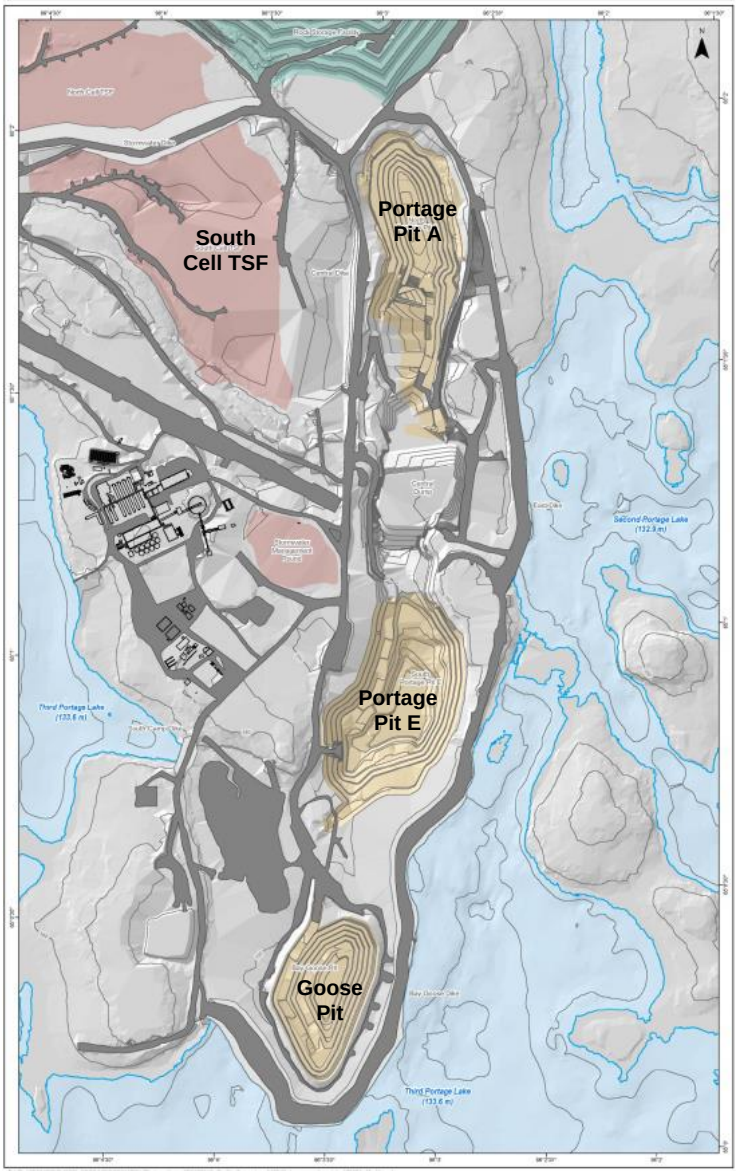

Figure 1: Meadowbank Site Layout with In Pit disposal

1.2 NuPPAA S.90 Self Assessment

As presented in the letter to NPC dated December 18, 2017, Agnico Eagle completed a self-assessment for the proposed In-Pit Tailings Disposal Modification which found that it is not a "significant modification" under NuPPAA, when taking into account the "s. 90 factors". The In Pit tailings Disposal Modification is not associated with any expansion of the mine footprint, and is located within the area of impact previously assessed, with no additional historical, cultural and archaeological significance. Agnico Eagle considers the nature, magnitude, complexity, probability, frequency, reversibility and cumulative impacts are unaffected as

outlined in Cumberland (2005)[1]. This initial assessment is further supported by SNC (2018) and any potential impacts are mitigable through the implementation of management plans provided to the NIRB in this response package as outlined in Table 1.

As initially outlined in Agnico Eagle' December 18, 2017 letter to the NPC this modification will result in no change to the mine site footprint or intensification of mining activity. As outlined in the letter to NPC and summarized below, Agnico Eagle has completed a self-assessment pursuant to recent guidance from the NIRB and concluded that the planned modification is not a "significant modification" under the Nunavut Planning and Project Assessment Act (NuPPAA).

The following significance analysis follows the guidance outlined in the NIRB's correspondence with the NPC of January 31, 2018, to Agnico Eagle of December 5, 2017, to TMAC Resources Inc. dated December 12, 2017, and to Baffinland Iron Mines Corporation dated November 14, 2017, plus the most recent guidance dated February 14 2018, in which NIRB sets out its recommended process for proponents wishing to propose a modification to a previously approved project. In accordance with NIRB's recommended process we have considered the proposed scope of activities and the significance of impacts in accordance with s. 90 of NuPPAA, using the self-assessment step outlined by the NIRB. Under NuPPAA, a modification to an existing, previously assessed and approved project is not subject to the requirement for a conformity determination by NPC and an assessment by NIRB if it is not a "significant modification."

Section 90 of NuPPAA states, in determining the significance of potential impacts, the NIRB must take into account the following factors:

> (a) The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts;
> (b) The ecosystemic sensitivity of that area;
> (c) The historical, cultural and archaeological significance of that area;
> (d) The size of the human and the animal populations likely to be affected by the impacts;
> (e) The nature, magnitude and complexity of the impacts;
> (f) The probability of the impacts occurring;
> (g) The frequency and duration of the impacts;
> (h) The reversibility or irreversibility of the impacts;
> (i) The cumulative impacts that could result from the impacts of the project combined with those of any other project that has been carried out, is being carried out or is likely to be carried out; and,
> (j) Any other factor that the Board considers relevant to the assessment of the significance of impacts.

[1] Cumberland Resources (2005) Meadowbank Gold Mine Project : Final Environmental Impact Statement (FEIS).

Agnico Eagle has considered each of the s. 90 factors and has concluded it not a significant modification, in the context of the In-pit Tailings Disposal modification:

(a) The entire geographic area to be used for the In-pit Tailings Disposal modification is within pits that have previously been impacted by ore extraction, therefore the modification results in no additional impacted geographic area or wildlife habitat;
(b) By re-purposing the existing area of disturbance (pit areas), the modification does not cause impacts to an ecosystemically sensitive area;
(c) By re-purposing the pit areas, the modification will result in a negligible change in impacts to an area of historical, cultural or archaeological significance;
(d) The modification is not expected to result in changes to impacts on human and animal populations;
(e) By re-purposing the pit areas, this modification will result in a negligible change to the Meadowbank Mine environmental impacts, including the nature, magnitude and complexity of the impacts;
(f) There will be negligible change to the probability of impacts occurring;
(g) There will be negligible change to the frequency and low to negligible change in duration of the impacts;
(h) There will be negligible change to the reversibility or irreversibility of the impacts; and,
(i) There will be negligible change to the cumulative impacts.

These self-assessment conclusions are supported by the attached SNC-Lavalin (2018) Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition which "reviewed the predicted impacts of the Meadowbank FEIS (Cumberland 2005)" and evaluated the deviations in the predicted impacts by the proposed placement of tailings within the existing Goose and Portage Pits to the original FEIS prediction for the In-Pit Tailings Disposal Modification applicable VECs.

1.3 Response to NIRB's January 31, 2018 Supplemental Information Requirements

As requested, Table 1 provides references to documents that were developed to ensure protection of the environment, flexibility of future Meadowbank Operations and will provide the NIRB with supplemental information that is intended to address the requests of the NIRB in its letter dated January 31, 2018.

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Table 1: Summary of Agnico Eagle's supporting documents and management plans addressing the NIRB's January 31st, 2018 supplemental information requirements

NIRB Information Requirements	Agnico Eagle's Response	Relevant Supporting Document
Discussion of factors contributing to the change in the preferred option for tailings disposal for the Meadowbank Gold Mine Project, including:		
-Feasibility of continuing with no changes to the existing method of tailings disposal within the Meadowbank Tailings Storage Facility for approved operations with discussion of any relevant capacity constraints;	Through the construction of the Central Dike raise to 150 metres above sea level (masl), Agnico Eagle has the capacity to store an additional ~5.0mil tonnes of tailings which will allow for an additional 2 years of milling. However, as outlined in the MAA and discussed by the MDRB, this option presents some risks (ie. Central Dike seepage) which are mitigable through in-pit disposal. While it is technically feasible to continue with no changes to the existing method of tailings disposal within the Meadowbank Tailings Storage Facility for approved operations, the MDRB supports the In-Pit Disposal Modification.	SNC-Lavalin, (SNC), 2016d. Multiple Accounts Analysis for the Tailings Facility Extension Project, October 24, 2016. Meadowbank Dike review Board, (MDRB), 2016. Report No 19 - Meadowbank Mine Dike Review Board - Meeting September 19-22, 2016, October 7, 2016.
-Estimates of tailings production associated with the approved Whale Tail Pit Mine and any further reasonably foreseeable future development;	Agnico Eagle has considered a milling and tailings management plan that provides operational flexibility for Whale Tail Pit and reasonably foreseeable future development. The current tailings management plan presents a deposition plan that accounts for the storage of Whale Tail Pit tailings of 8.3 Mil tonnes (AEM 2017a). In-pit modification will provide an additional 22 Mil tonnes or a total tailings storage facility capacity of 30.3 Mil tonnes (SNC 2016d; SNC 2017e).	SNC-Lavalin, (SNC), 2016d. Multiple Accounts Analysis for the Tailings Facility Extension Project, October 24th, 2016. AEM (2017a), 2016 Mine Waste Rock and Tailings Management Report & Plan Update – 2016, November 2017. SNC-Lavalin, (SNC), 2017e. In-Pit Tailings Deposition Water Balance and Water Quality Forecast, September 12th, 2017.
-Update to the alternative analysis for tailings disposal as presented within the Integrated Report on Evaluation of Tailings Management Alternatives for the Meadowbank Gold Mine with discussion of cost, environmental risks,	The alternatives analysis was updated by SNC in 2016 as part of the tiered decision making approach (SNC 2016d). This included a review of the Cumberland (2006).	SNC-Lavalin, (SNC), 2016d. Multiple Accounts Analysis for the Tailings Facility Extension Project, October 24th, 2016.

NIRB Information Requirements	Agnico Eagle's Response	Relevant Supporting Document
available storage space in existing structures, and any other pertinent factors.		
Detailed information on the potential for impacts to the groundwater resulting from the proposed modifications' disposal of tailings into the three (3) pits, Portage Pit A, Portage Pit E and Goose Pit.	The in-pit tailings disposal is predicted to have the same or less impact to the groundwater in operation, closure/post closure. More specifically, Agnico Eagle refers NIRB to Appendix A, which provides NIRB with relevant excerpts from SNC (2018) and SNC (2017). Detail of the potential for impacts to the groundwater is presented in Appendix A.	SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018 SNC-Lavalin, (SNC), 2017d. Hydrogeological Modelling for In-Pit Deposition of Tailings, November 30th, 2017. SNC-Lavalin, (SNC), 2017h. Groundwater Monitoring Program, November 15th, 2017.
Information on the additions/changes to the existing groundwater monitoring to monitor the freshwater environment downstream of the three (3) pits. This should include groundwater flow to assist in the monitoring of the integrity of the pits and the dikes, especially at the Bay Goose Dike as monitoring of seepage through the dike was not collected by Agnico Eagle in 2017.	Agnico Eagle refers NIRB to Appendix A, which provides NIRB with relevant excerpts from SNC (2017h) and AEM (2018c). In accordance with the established NWB Type A Water Licence modification process, Agnico Eagle will continue to work with the NWB to ensure issues relating to groundwater monitoring and pit and dike integrity are addressed, although at this time Agnico anticipates that the monitoring program would continue to focus on the same location and methodology. Detail of the updated groundwater monitoring program is presented in the Appendix A. Agnico Eagle will continue to perform the inspection of the Bay Goose dike, and any increase of seepage observed during these inspections will be monitored. Note that during the operation of the in-pit disposal Tailings Storage Facility, the natural hydraulic gradient will remain from the lakes to the pits.	SNC-Lavalin, (SNC), 2017h. Groundwater Monitoring Program, November 15th, 2017. AEM (2018c), Meadowbank Gold Project - Groundwater Monitoring Plan, Version 8 January 2018.
Updated description of the use and fate of the Goose Pit, recognizing that this pit has been allowed to slowly fill-in	Pending approval of the In Pit Disposal Modification, Agnico Eagle will continue to allow Goose Pit to	AEM (2017a), 2016 Mine Waste Rock and Tailings Management Report & Plan

NIRB Information Requirements	Agnico Eagle's Response	Relevant Supporting Document
naturally with water since mining ended in early 2015. In addition, Agnico Eagle noted during the NIRB's 2017 site visit that active re-flooding would commence in 2018 for Goose Pit.	naturally reflood. If the modification is approved, Agnico will begin subaqueous deposition, using the existing water head as reclaim water. Agnico Eagle met with ECCC and DFO on November 20th to discuss the fate of Goose Pit in relation to current and existing authorizations. They identified that a modification to the existing Fisheries Act Authorization may be required. Furthermore, we will continue to work with the NWB during the Type A modification phase.	Update – 2016, November 2017. Agnico Eagle (2017), Agnico Eagle Mines Meadowbank Inpit Tailings Disposal Summary for Environment Canada.
Changes in the use and fate of Portage Pit A and Portage Pit E (as the original plan was to flood Portage Pit following mining).	As stated in SNC (2018), the total annual volume of freshwater required during the period of operations is estimated to be below the maximum volume authorized in the Type A Water Licence No. 2AM-MEA1525. No increase in water use or waste is associated with the In-Pit Disposal Modification. At the end of in- pit deposition, since a large volume of the pits will be occupied by tailings, the volume of freshwater required for pit re-flooding will be lower, representing about 50% to 60% reduction when the pits are filled with tailings to their maximum capacity, compared to the quantities estimated in the Meadowbank FEIS. Agnico Eagle will continue to work with the NWB during the Type A modification phase.	SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018 AEM (2017a), 2016 Mine Waste Rock and Tailings Management Report & Plan Update – 2016, November 2017.
Details on the proposed extension of the slurry and reclaim water piping.	Agnico Eagle refers NIRB to Figure 1: site layout which provides the proposed extension of the slurry and reclaim water piping. Further details on water management infrastructure are provided in Appendix A.	AEM (2017b), 2016 Water Management Report and Plan Update, November 2017.
Proposed changes to the Fisheries Offsetting and Compensation Plans	Agnico Eagle will continue to adhere to fisheries offsetting goals outlined in AEM (2012) which are consistent with the NWB Type A closure goals to achieve water quality suitable to fish and ultimately breach the dikes. As a result, and as discussed with KIA, ECCC and DFO on November 20th, 2017, there are no significant changes to	SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018 Agnico Eagle (2017) – Technical Memorandum, Updated NNL Calculations

NIRB Information Requirements	Agnico Eagle's Response	Relevant Supporting Document
	Fisheries Offsetting and Compensation Plans as outlined in SNC (2018) and Agnico Eagle (2017).	for Habitat Gains in Second and Third Portage Lake – August 28, 2017.
Proposed updates to the Closure and Reclamation Plans.	Agnico Eagle refers NIRB to Section 5.4 of SNC (2018). Given that there are no significant changes to the footprint, there are no substantive changes expected to the closure costs upon approval Agnico Eagle will work with NWB, INAC, KIA to update the closure plan as needed. Detail of the proposed updates to the closure and reclamation plan are presented in Appendix A	SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018
Specific terms and conditions within the Meadowbank Project Certificate (No. 004) that are applicable to the existing tailings disposal facilities and process, and that could be applicable to the new or modified works in the proposed modifications.	See Section 1.5 below.	NIRB PC No.4
The potential ecosystemic and socio-economic effects of the proposed modifications to the Meadowbank Gold Mine. Discussion should include potential impacts to terrestrial wildlife, migratory birds, non-migratory birds and the freshwater environment.	SNC (2018) concludes that the terrestrial wildlife, migratory birds and non-migratory birds impacts have been assessed and are unchanged from the Cumberland (2006) assessment; impacts to the freshwater are not significant.	SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018

1.4 Community Consultation and Regulatory Engagement

Agnico Eagle has recently completed public consultation and community sessions in Baker Lake on February 8, 2018, and will be completing additional community sessions to discuss the In-Pit Disposal Modification in March 2018. No community concerns respecting the In-Pit Disposal Modification were expressed during the consultation and community sessions.

Furthermore, beginning in September 2017, Agnico Eagle met with the Kivalliq Inuit Association (KIA) and have worked closely with Nunavut Water Board, Environment Canada and the Department of Fisheries and Oceans related to the In-Pit Disposal Modification and will continue to do so as the modification continues into the regulatory phase. Agnico Eagle discussed existing Section 35 authorizations with DFO and ECCC in November 20th, provided them with a summary of the In-Pit Disposal Modification (Agnico Eagle, 2017) together with its request for renewal and received a "modification" or Letter R from DFO on December 11th, 2017.

NWB staff have indicated that, as per Part G, Item 1(b), the In Pit Disposal Modification meets the conditions of a modification as per Type A License 2AM-MEA1525, and that the modification can proceed without amendment to any of the existing Type A Licence 2AM-MEA1525 terms and conditions. Type A Water License 2AM-MEA1525 Meadowbank Gold Project Water Agnico Eagle Mines Meadowbank Division, Part G: Conditions Applying to Modifications, states:

3. Applications for modifications shall contain:
    a. A description of the facilities and/or works to be constructed;
    b. The proposed location of the structure(s);
    c. Identification of any potential impacts to the receiving environment;
    d. A description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling;
    e. Schedule for construction;
    f. Drawings of Engineered Structures stamped by a Professional Engineer; and
    g. Proposed sediment and erosion control measures.

As per NIRB guidance on February 14th, 2018, and subsequent teleconference with NIRB on February 15th, 2018, Agnico Eagle is also submitting a formal modification notice to the NWB which addresses each of these requirements. In this modification application, Agnico Eagle has revised the following plans to reflect the minor changes in monitoring related to the modification:

- AEM (2017a), 2016 Mine Waste Rock and Tailings Management Report & Plan Update – 2016, November 2017.
- AEM (2017b), 2016 Water Management Report and Plan Update, November 2017.
- AEM (2018c), Meadowbank Gold Project - Groundwater Monitoring Plan, Version 8 January 2018.

Agnico Eagle will work with the NWB,the NIRB and INAC inspectors to continue to ensure we are in compliance.

1.5 Formal Reconsideration of Project Certificate No. 004 Should be Triggered by the In-Pit Disposal Modification

Agnico Eagle has considered section 12.8.2 of the Nunavut Agreement as well as NuPPAA section 112 in order to identify whether the grounds for a reconsideration of the existing Project Certificate terms and conditions have been met. In our view, they have not.

The first consideration under 12.8.2 is whether "the terms and conditions are achieving their purpose". In Agnico Eagle's view, the current terms and conditions of Project Certificate No. 004 are achieving their purpose, and are sufficiently detailed and robust to ensure that no significant environmental effects result from the In-Pit Disposal Modification. A number of the terms and conditions that are particularly relevant to the In-Pit Disposal Modification are listed in the table below.

Table 2: Terms and Conditions in Project Certificate No. 004 Relevant to In-pit Disposal Modification.

Project Certificate No. 4 Relevant Term and Condition	***Agnico Eagle Comments***	
3. Cumberland must obtain all required federal and territorial permits and other approvals, and shall comply with the requirements of such regulatory instruments.	The In Pit Disposal Modification would proceed in compliance with all applicable Inuit and regulatory approvals, in particular: • KIA surface use authorizations; • *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the Type A Water Licence • *Fisheries Act* and *Fisheries Act* Authorizations	
4. Cumberland shall take prompt and appropriate action to remedy any noncompliance with environmental laws and regulations and/or regulatory instruments, and shall report any non compliance as required by law immediately and report the same to NIRB annually.	Agnico Eagle is obligated to take prompt and appropriate action to ensure compliance with applicable laws and its permits.	
5. Cumberland shall meet with respective licensing authorities prior to the commencement of construction to discuss the posting of adequate performance bonding. Licensing authorities are encouraged to take every measure to require that sufficient security is posted before construction begins. This bonding should not duplicate other amounts of security required (eg. the NWB).	Agnico Eagle has met with Nunavut Water Board and Fisheries and Oceans Canada to discuss bonding. In our view, there are no changes to the Meadowbank closure and fisheries security.	
8. Cumberland shall, within 30 days of re-opening of the camp, re-sample existing groundwater monitoring wells and combining the sampling data with	Agnico Eagle will continue to comply with this term and condition as they apply. The In Pit Disposal Modification does not present a significant risk to	In 2018, the installation of three (3) new groundwater monitoring wells are proposed. Strategic

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
existing rounds of groundwater sampling data, re-evaluate the salinity, major ion concentrations, and dissolved metal load of groundwater flowing to the mine pits and incorporate the results into the water quality monitoring and treatment program. At the time samples are taken Cumberland shall also assess the condition of existing groundwater monitoring wells and replace any defective wells. Cumberland shall continue to undertake semi-annual groundwater samples and re-evaluate the groundwater quality after each sample collection. Cumberland shall report the results of each re-evaluation to NIRB's Monitoring Officer, INAC and EC, and incorporate the results of the additional data into the water license application to the NWB.	groundwater, however, in accordance with the Project Certificate and Type A Water Licence ongoing required monitoring will ensure that any changes are identified and responded to should they occur.	locations for the new wells are based on groundwater numerical simulation results aiming to reproduce in-pit deposition conditions. Moreover, to improve well designs and groundwater sample quality, best practices under arctic climate conditions continue to be investigated. Refer to Groundwater Monitoring Plan (AEM, 2018c) for more details.
9. Cumberland shall provide detailed plans for water treatment for the tailings (reclaim pond) discharge, and on a contingency basis for the attenuation pond discharge(s) and for the pits, including estimates of treatment efficiency for each parameter of concern and the description of pH adjustments in the water license application to the NWB.	Per our discussions with the Nunavut Water Board, these plans will be revised and updated to reflect the In Pit Disposal Modification. No forecasted revision for treatment during operation and we will continue to evaluate our water quality as per Type A Licence prior to closure.	
13. Cumberland shall not permit the water discharged into Wally Lake and Third Portage Lake to exceed receiving environment discharge criteria established by the NWB or as otherwise required by law.	The In-Pit Disposal Modification would proceed in accordance with this requirement.	There are no expected changes to monitoring effluent discharge and no changes to monitoring the receiving environment.
14. Cumberland shall not remove dewatering dikes until the quality of water contained within them is of sufficient quality to meet receiving environment discharge criteria established by the NWB or as otherwise required by law.	The In Pit Disposal Modification would proceed in accordance with this requirement. The In Pit Disposal Modification does not propose to change any discharge criteria set out in the Type A Water Licence, and would proceed in full compliance with the existing Type A Water Licence terms and conditions.	
18. Cumberland shall commit to a pro-active tailings management strategy	As noted above, in Agnico Eagle's view proceeding with the In Pit Disposal	As outlined in Type A 2AM MEA1525, Schedule I Table

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
through active monitoring, inspection, and mitigation. The tailings management strategy will include the review and evaluation of any future changes to the rate of global warming, compliance with regulatory changes, and the ongoing review and evaluation of relevant technology developments, and will respond to studies conducted during the mine operation.	Modification as a tailings management strategy which is consistent with what was expected over the life of mine, and implementation is necessary for compliance with this condition.	2, Agnico Eagle will continue to monitor stations ST-17, ST-19 and ST-20 for Table 1, Group 1 parameters during operation of the in-pit tailings storage and group 2 (receiving water parameters) in late operations and closure. Furthermore, regular monitoring of the TSF, such as bathymetry and topography surveys, will continue to be conducted through the life of the TSF to adjust model parameters, deposition strategy and assess capacity of the TSF as presented in the 2016 Mine Waste Rock and Tailings Management Report & Plan Update – 2016 (AEM, 2017a).
19. Cumberland shall provide for a minimum of two (2) metres cover of tailings at closure, and shall install thermistor cables, temperature loggers, and core sampling technology as required to monitor tailing freezeback efficiency. Cumberland shall report to NIRB's Monitoring Officer for the annual reporting of freezeback effectiveness.	Agnico Eagle will continue to comply with this term and condition as they apply. Using best available technology we will monitor the in-pit disposal as per water licence requirements for closure. This will inform the final closure plan concepts as per the Type A water Licence.	As outlined in Type A 2AM MEA1525, Schedule I Table 2, Agnico Eagle will continue to monitor stations ST-17, ST-19 and ST-20 for Table 1, Group 1 parameters during operation of the in-pit tailings storage and group 2 (receiving water parameters) in late operations and closure. During 2017, four new thermal monitoring stations were installed around Portage and Goose pits to monitor thermal behavior of the future in-pit tailings disposal process. This information will be used to develop the final closure plan.

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
23. For the purposes of monitoring quality assurance and quality control ("QA/QC"), Cumberland shall ensure that water quality monitoring performed at locations within receiving waters that allow for an assimilative capacity assessment of concern to regulators, be carried out by an independent contractor and submitted to an independent accredited lab for analysis, on a type and frequency basis as determined by the NWB. Results of analysis shall be provided to the NWB and NIRB's Monitoring Officer.	Agnico will continue to comply with this term and conditions.	Approved QA/QC practices will continue, as there are no expected changes to water quality monitoring QA/QC as a result of this modification.
29. Cumberland shall report to NIRB if and when Cumberland develops plans for an expansion of the Meadowbank Gold Mine, and in particular if those plans affect the selection of Second Portage Lake as the preferred alternative for tailings management.	As we are using existing pits within the existing footprint, as noted above, the In-Pit Disposal Modification is not an expansion of Meadowbank Gold Mine. Changes of the tailings management are detailed in an updated alternatives analysis and management plan.	
30. Cumberland shall meet with EC and the DFO to ensure that the information required for the application to add the northwest arm of Second Portage Lake as a tailings impoundment area under Schedule 2 of the Metal Mining Effluent Regulations, including the No Net Loss Plan to offset losses expected as a result of all other Project infrastructure, is complete and the application can be processed according to law.	Agnico has complied with this term and condition. Agnico Eagle has met with Environment Canada and Fisheries and Oceans Canada with respect to the In Pit Disposal Modification in order to ensure continued compliance.	
49. Agnico Eagle Mines Ltd. shall develop, implement and report on the fishout programs for the dewatering of Second Portage Lake, Third Portage Lake, Vault Lake and Phaser Lake. This must be done in consultation with the DFO, Elders and the HTOs, and in a manner that optimizes the acquisition of northern fisheries science and augments baseline fisheries data to support monitoring programs and the final design of fish habitat compensation for the Project.	Agnico has complied with this term and condition and completed a fishout of Second Portage Lake, Third Portage Lake, Vault Lake and Phaser Lake between 2008 and 2016 in consultation with DFO, Elders and HTO. The area of the In Pit Disposal Modification has already been fished out in accordance with these requirements.	Agnico Eagle will work with DFO to update the Habitat Compensation Monitoring Plan to reflect changes in monitoring of the In-pit Disposal modification.
53. Agnico Eagle Mines Ltd. shall, in consultation with the HTOs and DFO, develop a Fish Habitat Monitoring Plan,	Agnico has complied with this term and condition. Agnico Eagle has met with Environment Canada and	Agnico Eagle will work with DFO to update the Habitat Compensation Monitoring

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
including augmenting baseline fisheries data in the period prior to operation, with the clear objective of demonstrating the success of the No Net Loss Plan approved by the DFO. **The Fish Habitat Monitoring Plan should include Phaser Lake.**	Fisheries and Oceans Canada with respect to the In Pit Disposal Modification in order to ensure continued compliance. No changes to the Fish Habitat Monitoring Program are required.	Plan to reflect changes in monitoring of the In-pit Disposal modification.
75. Cumberland shall provide a complete list of possible accidents and malfunctions for the Project. It must consider the all-weather road, shipping spills, cyanide and other hazardous material spills, and pitwall/dikes /dam failure, and include an assessment of the accident risk and mitigation developed in consultation with Elders and potentially affected communities.	The In Pit Disposal Modification does not present any additional risk of accidents or malfunctions. As recommended by the Meadowbank Dike Review Board, In-pit disposal reduces overall risks of accidents and malfunctions, ensures the containment of the seepage and long term mitigation of the Meadowbank Tailings Storage Facility.	
78. Cumberland shall file a complete Closure and Reclamation Plan developed to comply with INAC's policy of full cost of restoration and any related NWB requirements such that the Inuit and taxpayers are not liable for any cost associated with the cleanup, modification, **decommission, or abandonment.**	Agnico Eagle will comply with this condition and will provide an updated interim closure plan.	
79. In addition to the NWB's requirements, the final Closure and Reclamation Plan shall require Cumberland to: **a. Ensure that mine facilities and infrastructure are abandoned in such a manner that:** **i. The Project site is physically stable and any requirements for long term maintenance and monitoring are minimized;** **ii. Threats to public safety and wildlife are eliminated; and** **iii. Affected areas are returned to the original undisturbed conditions to the fullest** **extent possible.** **b. Prevent continuing impacts from contaminants and wastes on the environment including those associated with acid rock drainage;**	Agnico Eagle will comply with this condition.	

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
c. Remove all hazardous materials and waste and as much salvageable waste as practicable from the Project area; and **d. Enter into written arrangements with its abandonment and reclamation contractors to** **ensure all site debris is cleaned up off the lands, including wind-blown debris.**		
80. Cumberland shall file annually with NIRB's Monitoring Officer an updated report on progressive **reclamation and the amount of security posted, as required by KivIA, INAC,** **and/or the NWB.**	Agnico Eagle will comply with this condition.	
Appendix D Meadowbank Monitoring Program **1. Implement a comprehensive post-environmental assessment monitoring program (PEAMP) for the project, in accordance with commitments made within the Final Environmental Impact Statement (FEIS), during the Final Hearing and as required throughout the Project Certificate. The PEAMP should be designed to work as an instrument of the Proponent's** **overall monitoring efforts, and should provide feedback to the NIRB and other agencies** **regarding ongoing project monitoring.** **The objectives of the PEAMP shall be to:** **a. Measure the relevant effects of the project on the ecosystemic and socioeconomic environment(s). These effects may be measured through biophysical and socioeconomic monitoring programs undertaken by the Proponent or by other means as described in the Project Certificate;** **b. Assess the accuracy of the predictions made within the FEIS;** **c. Evaluate the effectiveness of project monitoring procedures and plans;** **d. Identify impacts requiring additional mitigation or adaptive management; and** **e. Provide relevant data and information to support regional monitoring initiatives**	Agnico Eagle will comply with this condition. As per NuPAA s90 there are no significant changes as a result of the inpit disposal modification. The PEAMP is broad, comprehensive and would reflect the In Pit Disposal Modification.	Agnico Eagle will continue to monitor groundwater, surface water quality at Type A water quality stations and receiving water environment and will assess the accuracy of the predictions made in the FEIS. Furthermore, based on the requirements of the PEAMP ,Agnico Eagle will evaluate the effectiveness of monitoring procedures and plans to ensure the ecosystemic and socioeconomic environment. If new monitoring plans are developed specific to the modification, they will be integrated into the PEAMP.

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where feasible. **The PEAMP must utilize, to the extent possible, the monitoring plans and programs as described in the FEIS, during the Final Hearing, and throughout the Project Certificate as well as all monitoring plans and/or reporting required by relevant authorizing agencies.** **Where applicable, any additional monitoring plans developed by the Proponent should be integrated within the PEAMP. As part of the PEAMP, the Proponent is required to ensure that the NIRB is provided with up to date copies of all monitoring and mitigation plans for the project as such plans are developed, revised, amended or updated over the life of the project.**		
2. Submit an annual report to the NIRB at an agreed upon time each year until operations cease and the project site is fully reclaimed. The purpose of the annual report shall be to provide the NIRB and other parties with an update regarding the status of project operations, an overview of the site and its operations during the reporting period, as well as to provide a discussion of the observations made as a result of, or illustrated through, the monitoring program. The report is expected to contain the following information: **a. A discussion of how the Proponent has carried out the project in accordance with the terms and conditions of the Project Certificate during the reporting period. Instances where full compliance has not been**	Agnico Eagle will comply with this condition. As per NuPAA s90 there are no significant changes as a result of the inpit disposal modification. However, the 2018 Annual Report and future reports will provide a detailed update respecting the In Pit Disposal Modification, as well as relevant monitoring data from subsequent years.	

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
achieved should be identified and explained using supporting rationale and suggestions for the resolution of outstanding issues. **b. A summary of the results from the PEAMP including an analysis of the project's impact to the environment with reference to the predictions and environmental and socioeconomic indicators used throughout the FEIS and Final Hearing, to be clearly cross-referenced to facilitate the reviewers' ability to locate such referenced information.** **This analysis should include:** **i. Reference to baseline and monitoring data used to support impact predict ions and effects conclusions, with a discussion of data collection and analysis methodologies employed;** **ii. An evaluation of the effectiveness of any mitigation measures undertaken and, where relevant, a discussion of any exceeded thresholds, adaptive mitigation strategies employed and their effectiveness.** **c. A comprehensive listing of all authorizations required for the project. This listing should also identify the status of all authorizations (i.e. application in progress, received, expired), the date of issue and date of expiry, and any requested renewals, updates, amendments or extensions to these authorizations;** **d. A discussion of the compliance status of the project with respect to all authorizations and applicable regulations and guidelines, including responses to recommendations or direction issued by the NIRB or other agencies;**		

Project Certificate No. 4 Relevant Term and Condition	*Agnico Eagle Comments*	
e. A summary of activities undertaken for the year, including any progressive reclamation work undertaken, and a work plan outlining activities anticipated to occur during the following year; site photos should be provided where useful for illustrative purposes; **f. A summary of public/community consultations undertaken and related results or implications for the project;** **g. A listing of site-visits undertaken by federal, territorial, or other inspectors with a corresponding discussion of findings and follow-up actions; and,** **h. Any other information required as outlined within the Project Certificate terms and conditions. [Note: Conditions 4, 8, 15, 19, 23, 29, 32, 39, 40, 45, 56, 62, 63, 64, 67, 71, 72, 75, 76, 80, and 82 of the Project Certificate require the submission of some type of information to the NIRB.]** **3. Forward copies of all authorizations obtained for the project to the NIRB on an as-received basis.**		

The second consideration is whether "the circumstances relating to the project or the effect of the terms and conditions are significantly different from those anticipated at the time the certificate was issued". The circumstances t relating to the Meadowbank Mine and the effect of the terms and conditions are not significantly different from those anticipated at the time the certificate was issued. The NIRB required at Condition 18 of Project Certificate No. 004 that Agnico Eagle "commit to a pro-active tailings management strategy through active monitoring, inspection, and mitigation". The In Pit Disposal Modification is entirely consistent with this requirement. The NIRB anticipated that tailings management was an issue that would be revisited throughout the Meadowbank Mine life. Furthermore, as identified in NIRB's letter of January 31, 2018, a concept consistent with the In-Pit Disposal Modification was included as an alternative in the environmental review of the Meadowbank Mine.

The third potential criteria for reconsideration, is that, "There are other technological developments or new information which provides a more efficient method of accomplishing the purpose of the terms and conditions." The In Pit Disposal Modification is not new technology and does not fit these criteria. It is an established method that has been recommended by the Meadowbank Dike Review Board as best practice tailings management for this project.

1.6 Conclusion

In conclusion, it is important for the NIRB to recognize the rigorous evaluation that Agnico Eagle has undertaken since the beginning of operating the South Cell Tailings Storage Facility, that has led to the request for this modification. Beginning with the MDRB review in October 2016, Multiple Accounts Analysis (SNC 2016), Pre-Feasibility Study of In-pit Tailings Disposal (SNC 2017), Hydrogeological studies (SNC 2017), offsetting plan addendum (Agnico Eagle 2017) and an Impact Assessment Review (SNC 2018).

Agnico Eagle's self-assessment is that the proposed In-Pit Tailings Disposal Modification is not a "significant modification" under NuPPAA, in particular when taking into account the "s. 90 factors". The modification is located within the area of impact previously assessed, with no additional historical, cultural and archaeological significance. Agnico Eagle considers the nature, magnitude, complexity, probability, frequency, reversibility and cumulative impacts are unaffected as outlined in Cumberland (2005)[2]. This self-assessment is supported by SNC (2018) and as outlined in Table 1, the proposed modification of tailings are mitigable through the implementation of management plans provided to the NIRB in this response package. Agnico Eagle will undertake this activity in full compliance with all applicable KIA and regulatory requirements, including its *Fisheries Act* Authorization and its Type A Water Licence 2AM MEA1525.

If you require any further information please contact the undersigned via email or telephone.

Regards,

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[2] Cumberland Resources (2005) Meadowbank Gold Mine Project : Final Environmental Impact Statement (FEIS).

copy to: Michel Groleau (Agnico Eagle)

Nunavut Planning Commission
Nunavut Water Board

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APPENDIX A -

1) Groundwater quality impact assessment

5.3.2.2 Groundwater

Contaminants within the tailings pore water could also diffuse to the environment following closure due to concentration gradients between the tailings pore water and the water column above the tailings. This could lead toa higher contaminant concentration at the surface of the tailings compare to the concentration in the water column. Tailings pore water will also diffuse laterally in the surrounding groundwater. Contaminant transport will remain slow since groundwater levels from one side of pits to the other will be similar, thus limiting advective transport processes. In the same perspective, to limit advective transport, higher hydraulic head from South Cell will need to be lowered by continuing draining. Draining South Cell will also promote its freeze back. Reclaim water could also be trapped inside Central Dump material and should be pumped and treated if required at closure.

At closure, the gradient between the Third Portage Lake and the pits will be negligible. As presented in the PFS design of the in-pit tailings deposition (SLI, 2018) the diffusion of the contaminant is expected to be extremely slow, therefore potential impact are considered negligible.

In conclusion, the comparison to what was originally predicted, the in-pit tailings disposal is predicted to have the same or less impact to the groundwater in operation, closure/post closure.

The summary of impacts of the Meadowbank in-pit tailings deposition versus Meadowbank FEIS 2005 on groundwater quality, following the Section 90 of the Nunavut Planning and Project Assessment Act (NuPPAA) guidelines, is presented in Table 5-4.

Refer to Appendix 1, Tables 3 and 6, for the complete environmental assessment impact matrices on groundwater quality.

Table 5-4 : Summary of Impacts of the Meadowbank In-pit Tailings Deposition versus Meadowbank EIS 2005 on Groundwater Quality

Period	Assessment Criteria	Impact Significance (Meadowbank EIS 2005)	Impact Significance (In-pit Tailings Deposition)
Closure/Post Closure	Type:	Negative	Negative
	Magnitude:	Medium	Medium
	Extent:	Footprint	Footprint
	Frequency:	Continuous	Continuous
	Duration:	Long term	Long term
	Significance (residual impact):	Low	Low
	Probability:	Moderate	Moderate
	Reversibility:	Not assessed	No

SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018

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2) Updated groundwater monitoring program

11.0 GROUNDWATER MONITORING PROGRAM

Based on previous groundwater quality monitoring annual reports and on the hydrogeological and contaminant transport modelling works carried out during this PFS, a groundwater monitoring program should be adapted to the in-pit tailings deposition strategy. The main objectives of implementing a groundwater monitoring wells network are to:

- Obtain a geochemical baseline prior in-pit tailings deposition start,
- Monitor groundwater quality during the in-pit tailings deposition and adapt the operations, if needed,
- Monitor groundwater quality after deposition and before mine closure,
- Have "alert" monitoring wells network that could indicate a contaminant migration before it reaches the lakes and be able to initiate mitigation plans.

The three (3) proposed monitoring wells are detailed and are located in *Appendix VIII*. Monitoring wells location are in accordance with potential groundwater migration paths that were identified with the support of the hydrogeological model. Essentially, talik areas where targeted as they are considered as the main potential seepage pathway to lakes, compared to permafrost which are less permeable. Moreover, monitoring wells integrity over time will be facilitated in talik environment compared to well installation in permafrost and the well design will be adapted to the hydrogeological and thermal local conditions. Monitoring wells could be installed at shallow depth (35 to 50 m) in the more fractured and permeable upper bedrock, or at depth to intercept deeper open fractures as identified during the 2017 field investigation.

Groundwater sampling should be carried out at least once before the in-pit tailings deposition to obtain a geochemical baseline and to later assess the influence the deposition. During in-pit tailings deposition, at least two (2) groundwater samples should be collected at each well, while continuing to monitor groundwater level and temperature. Following the end of in-pit tailings deposition, groundwater sampling frequency could be reduced to one (1) sample per year, depending on the previous chemical results.

Chemical parameters that need to be analyzed are the same as it is actually done for water quality monitoring.

SNC-Lavalin, (SNC), 2017 - Tailings Storage Facility Extension In-Pit Tailings Deposition, December 2017

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3) Infrastructure requirement

9.5 *Infrastructures Requirement*

In order to implement in-pit tailings deposition at Meadowbank, the following infrastructure will be required on site:

- New pipeline to transfer the tailings to Goose Pit, Portage Pit A and Pit E;
- New pipeline to transfer reclaim water from the pits to the mill and between the pits;
- Reclaim water pumping stations;
- Reclaim water treatment system (at end of deposition);
- Central Dump monitoring wells.

For the PFS study, all of the new pipelines considered are HDPE, DR11.

Based on preliminary hydraulic calculations, the existing tailings pumps should be able to transfer the tailings to Goose Pit and Portage Pit A and Pit E.

Reclaim water pumping stations are required for the following application:

- Transfer of reclaim water from Portage Pit A or Pit E to the Mill reclaim water tank;
- Transfer of water from Goose Pit to Portage Pit E for water level control in Goose Pit;
- Reclaim water to the Water Treatment Plant (at end of deposition).

The reclaim water treatment system considered for the PFS is designed for metal removal by precipitation with the addition of proprietary chemicals or a coagulant. The chemicals will be added inline and the treated water returned to the inactive Portage Pit to allow the precipitated metals to settle out of solution.

Monitoring well(s) will be used to sample regularly the groundwater in the Central Dump and monitor its water quality at different depths. Moreover, the monitoring well(s) will also be equipped with a piezometer which will allow monitoring the water level in the dump. With this information, hydraulic gradients between Central Dump and the underneath Portage Fault and Bay Fault could be investigated during different in-pit tailings deposition periods, including before mine closure, to asses groundwater flow and manage reclaim water migration risks toward lakes.

SNC-Lavalin, (SNC), 2017 - Tailings Storage Facility Extension In-Pit Tailings Deposition, December 2017

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4) Proposed updates to the Closure and Reclamation Plans

SNC·LAVALIN	TECHNICAL NOTE Environmental Impact Study Review – Meadowbank In Pit Tailings Deposition	Prepared by: Jean-Noel Duff, Erika Voyer Reviewed by: Dominic Tremblay		
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Closure and post-closure phase:

In closure and post-closure, there are no changes to the Meadowbank FEIS (Cumberland, 2005) assessment during post-closure related to surface water quantities used to re-flooding the pits. The total quantity of water required for the re-flooding of Goose and Portage pits will be lower since most of the volume will be filled with tailings. In order to avoid significant drawdown of Third Portage Lake, the approach to re-flooding the pits is similar to the description provided in the Meadowbank FEIS. The pits will be allowed to re-flooding with inputs primarily from natural surface runoff and pit seepages and, if required, additional volumes from Third Portage Lake will be added, respecting the limits of the Type A Water Licence 2AM-MEA1525. Thus, no significant impacts to the water balance are anticipated at closure.

In conclusion, the comparison to what was originally predicted, the in-pit tailings disposal is predicted to have the same or less impact to the water quantity in operation, closure/post closure.

The summary of impacts of the Meadowbank in-pit tailings deposition versus Meadowbank FEIS 2005 on water quantity, following the Section 90 of the Nunavut Planning and Project Assessment Act (NuPPAA) guidelines is presented in Table 5-2.

Refer to Appendix 1, Tables 2 and 5, for the complete environmental assessment impact matrices on water quantity.

SNC-Lavalin (SNC), 2018. Environmental Impact Study Review – Meadowbank In-Pit Tailings Deposition, February 6, 2018


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