AGNICO EAGLE

September 13th, 2016

Karen Kharatyan
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
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Re: NWB 2AM-MEA1525 – AEM response to NWB Request to provide comments to 2015 Annual Report

Dear Mr. Kharatyan,

As requested, the following information and comments are intended to address comments outlined in the below letters:

- INAC – August 4, 2016, *2015 Annual Report Review, Nunavut Water Board Water Licence No. 2AM-MEA1525*;
- ECCC – August 4, 2016, *2AM-MEA1525 – Agnico Eagle Mines Ltd. – Meadowbank Mine Project – 2015 Annual Report*

Should you have any questions or require further information, please do not hesitate to contact us at the below.

Agnico Eagle Mines Limited – Meadowbank Division

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1. Environment and Climate Change Canada

1.1 Appendix C2: Water Management Plan: Meadowbank Water Quality Forecasting Update (Technical Note)

Comment 1:

As in previous reports, dissolved parameters rather than total have been compared to water licence limits and to guideline values, which are both for total measurements. The report acknowledges this practice (as indicated on pdf page 112}:

" 3.2 Assumptions
xiv. Because of the similarities between the actual and dissolved forecasted concentrations, it is assumed that the suspended fraction should settle and not mobile during the breaching of dikes. Therefore, the dissolved parameters are used again in the forecasting model this year, compared to the total parameters."

Table 2-2 (pdf page 110) does not necessarily support the assumption that total and dissolved are similar.

For copper:
The January total concentration is 2 times dissolved;
There appears to be an error in the April dissolved measurement as it is higher than the total measurement (36.7 vs 28.5);
July is comparable;
The October total concentration is three times dissolved; The average is comparable.
For iron total concentrations were higher than dissolved by: January 1.9 times; April 1.1 times; July 1.4 times; October 2.5 times; Average: 1.4 times

ECCC notes that the modeling report recommends measurement of total and dissolved metals in the pits, and that transferred reclaim water be monitored for all parameters; these recommendations are supported and should be used for future comparisons. Groundwater monitoring results also report both total and dissolved forms of metals, and the total form should be used for comparisons.

With respect to the assumption that Total Suspended Solids (TSS) will settle out, this may not be valid and should be checked with sampling. If sufficient energy is present to achieve mixing of the pit water (on the understanding that meromixis is to be prevented) then there will likely be suspension of particulate matter.

> ***Agnico Eagle's Response:***
> *Table 2-2 presents the total vs dissolved concentrations in the mill effluent. However, when we analyzed the data of total versus dissolved fraction of copper and other parameters in the Reclaim Pond (at ST-21), we observed that the total and dissolved concentrations are approximately equal. This data demonstrates that any suspended metal hydroxide particles in the mill effluent settles out with the tailings in the TSF.*

Thus, it was decided to use the dissolved form of parameters for the mass balance analysis around the Reclaim Pond. When the Reclaim Pond water will be transferred to the Pits for closure, it will be important that the water transferred has a very low TSS.

In the next water quality forecast report, a summary table or graph will be presented comparing total vs dissolved concentrations for key parameters in the mill effluent and at ST-21, and total suspended concentrations, to demonstrate that most of the suspended particles do settle out readily in the TSF.

Comment 2:

Water quality for the North and South ponds was based on samples taken from the surface of the ponds. Profiles of the water chemistry should be done to confirm whether these are representative of the pond water. If not, a mass balance approach or other method should be used to estimate the potential contaminant contributions from the ponds.

Agnico Eagle's Response:
The water quality forecast report also recommends that samples be taken at different depth in the Reclaim Pond to assess if there is a concentration gradient. Agnico Eagle has taken samples at different depth in the Reclaim Pond. This data will be presented in next year's water quality forecast report.

Comment 3:

Contributions from saline mine water inflows are not explicitly considered in the model. This should be estimated for inclusion in the next model update. Currently the model inputs do include measured Total Dissolved Solids (TDS) increases observed in the mill effluent, and incorporates assumed increases to the North and South Cells. Groundwater contributions should be estimated and used as a model input.

Agnico Eagle's Response:
Minewater inflows from Portage and Goose Pit transferred to the Reclaim Pond are taken into account in the model. The minewater quality is assumed to be fixed over time and is based on samples taken in 2015. An average minewater TDS of 429 mg/L and 217 mg/L from Portage and Goose Pits respectively was used in the model.

Based on the data available of the minewater water quality, the main parameters that seems to contribute to the TDS are sulfate, hardness (i.e. calcium and magnesium) and some bicarbonate. Chloride concentrations are relatively low (mid 15 to 25 mg/L approx).

For next year's water quality forecast, a more detailed analysis of the changes in TDS in the minewater from Portage Pit and Goose Pit will be undertaken with the objective to assess a mass loading that will account for the changes in TDS. The updated water

quality forecast model will evaluate the minewater from Portage and Goose pit on a monthly time step basis based on this loading. Since the minewater from Portage and Goose Pits are transferred to the South Cell TSF, the evaluated minewater quality and loading from each pit will be taken into account in the water/mass balance around the South Cell TSF.

Comment 4:

Table 3-1 (pdf page 116) footnote numbers do not appear in the table. Agnico Eagle Mines Ltd. (the Proponent) should update the table to clearly show the information associated with each footnote.

Agnico Eagle's Response:

This is a formatting error. The footnote numbers applies to the following values:

1. *Dissolved copper and iron values under columns: "2014 WMP", "2013 WMP", "2012 WMP"*
2. *Iron concentration values under column "2015 WMP"*
3. *Dissolved selenium value under column "2015 WMP"*
4. *Ammonia value under column "2012 WMP"*

Next year's water quality forecast report will update this information and ensure that all footnotes are properly referenced in the table.

Comment 5:

Section 4 (Water Quality Forecast Results) presents predicted water quality for the Portage and Goose pits. The pH is predicted to range from 7.50 to 7.57. The Proponent should clarify whether consideration has been given to the potential for the generation of acidity from the exposed pit walls.

Agnico Eagle's Response:

In next year's water quality forecast model, the minewater from Portage and Goose pit will be evaluated on a monthly time step basis. The potential loading from the leaching of contaminants from the exposed pit walls will also be evaluated and included in the model.

Comment 6:

The Proponent should clarify the source of the Total N equivalent guideline shown as a Canadian Council of Ministers of the Environment (CCME) guideline in Table 4-2 (pdf page 125), and identify what this refers to.

Agnico Eagle's Response:
The Total N equivalent guideline listed under CCME column does not come from CCME. It is based on the threshold concentration for classification of an Oligotrophic lake in terms of nutrient concentrations (i.e Nurnberg 1996). A footnote will be added to the table in next year's water quality forecast report to clarify this item.

Comment 7:

In Table 4-2 (pdf page 125) the ammonia is shown as (NH3) (ionized) which is contradictory (the ionized form is NH4). The Proponent should clarify what form the predictions are for.

Agnico Eagle's Response:
The evaluation is based on total ammonia concentration (NH3) and not specifically on ionized ammonia. The tables will be updated in the next water quality forecast report to clarify this issue.

Comment 8:

Section 4.2.6 (Comparison of Forecasted Values) describes treatment options to improve pit water quality. Treatment of the metals parameters is proposed to be done upstream of discharge to the pit, and could involve several different treatment processes. Copper could be treated through lime or caustic dosing. High pH levels will change the form of ammonia and also the volatilization rates. The Proponent should clarify whether pH changes can be modeled for the pit water, or if pH adjustment will be done for any treated water prior to release or reconnection to surface waters.

Agnico Eagle's Response:
A pH adjustment will be required for any treated water prior to its release or reconnection to the surface water. If the selected water treatment involves precipitation of metals at an elevated pH in the Reclaim Pond, the treated water will have to undergo pH adjustment to lower the pH prior to its transfer to Portage Pit.

1.2 2015 Freshet Action and Incident Response Plan

Comment 9:

In Section 2.3.1.5 (East Diversion ditch outlet to NP-2 Lake), Section 2.3.1.7 (NP-2 Outlet and Vault Road Culvert), and Section 2.4 (Vault Road Culvert), reference is made to TSS management, with notification being made to the Department of Fisheries and Oceans (DFO) in the event of TSS discharge. This falls under ECCC's purview; the notification information should be amended to ECCC for TSS-related issues in waterbodies.

Agnico Eagle's Response:
Agnico Eagle agrees and will amend this information with the next revision of the Freshet Action and Incident Response Plan.

1.3 Groundwater Monitoring Report

Comment 10:

The results over time for various groundwater monitoring well sites show a high degree of variability between years, and this raises questions on the robustness of groundwater characterization. For example, comparisons of TDS results from Table 2 (pdf page 15) show that MW-03-01 ranges from 315 to 1900 ppm; MW-08-02 ranges from 39 to 843, with the 2015 values being an order of magnitude lower than all previous years. Related parameters fluctuate widely (e.g. chloride). Only one site showed consistent groundwater quality for two sampling events in 2015; MW-14-01 yielded similar TDS results, and reasonable comparability for the metals parameters between the May 2015 and August 2015 samples. Mine water inflows are presented as being representative of groundwater quality, but the sample quality is not a clear match for the groundwater well samples based on chemical characterization.

The main reasons for monitoring groundwater are to confirm there is no subsurface migration out from the tailings containment facility into the groundwater, and to track groundwater quality in order to accurately model site water quality on an ongoing basis. Those goals are being met to a degree, and ECCC suggests that it would be worthwhile to revisit the groundwater monitoring program design to focus on improving the information for water quality model updates.

Agnico Eagle's Response:
The 2015 groundwater monitoring program at Meadowbank was conducted in accordance with the Groundwater Monitoring Plan (AEM, 2014). The objectives of this program are to monitor the salinity of shallow and deep groundwater in order to update site water quality predictions and to document any effects of mining on groundwater quality, particularly with respect to tailings deposition.

In 2015, wells MW-14-01 and MW-08-02 were each sampled twice as per the 2014 Plan. As recommended by Golder (2012), attempts were also made to augment the groundwater sampling program using alternative sources such as production drill holes. In 2015 the alternate sources included two geotechnical drill holes that were

successfully sampled in Portage pit E3 in December 2015. Analysis of key parameters indicated this to be likely groundwater. Due to the difficulties encountered in maintaining and sampling monitoring wells, Agnico Eagle will continue to pursue opportunities for sampling groundwater from alternative sources as well as the existing wells.

For salinity-related parameters (conductivity, TDS, chloride), results for MW-08-02 and the Pit E3 drill hole samples were lower than or within the range of those observed historically onsite. Elevated concentrations of salinity-related parameters encountered previously (2014) at MW-14-01, which were related to well installation (salt used in drilling process), decreased by more than 50% in 2015.

The groundwater monitoring program design evolved over the years of operations with the knowledge gained throughout time and a better understanding of the field conditions. Agnico Eagle will continue to work on the groundwater monitoring program to focus on improving the information for water quality model updates.

1.3 Appendix D1: Mine Waste Rock and Tailings Management Plan

Comment 12:

Section 2.1.4.3 (Impact of Global Warming on Site Conditions) states that " Studies indicate that the boundaries of discontinuous and continuous permafrost are expected to move northward due to global warming (Woo eta/., 1992) (Figure 2-2). Predictions based on a warming of 4°C to soc over the next 50 years (NRC, 2004) (approximately double the rate predicted above) suggests that the Meadowbank site would remain within the zone of continuous permafrost, but the active layer thickness would be expected to increase, and the total thickness of permafrost may slowly reduce in time". If this is true, does the Proponent have a proposed mitigation plan to mitigate a possible effect on the ability of permafrost to encapsulate potentially acid generating (PAG) rock, if warming in the north increases as projected? The possible increase of the thickness of the active layer could mean increased flow through the active layer and perhaps water contact with PAG material.

Agnico Eagle's Response:

The Portage Rock Storage Facility (PRSF) is composed of an internal sector comprising potentially acid generating (PAG) waste rock and a cover comprising of non-acid generating (NPAG) waste rock. The PAG rock portion of the PRSF has subsequently been capped, around the perimeter as the facility has risen, progressively, during operations with a 4m layer of NPAG rock to constrain the active layer within relatively inert materials. The control strategy to minimize the onset of oxidation and the subsequent generation of acid rock drainage includes freeze control of the waste rock through permafrost encapsulation and capping with an insulating convective layer of NPAG rock. The waste rock below the capping layer is expected to freeze, resulting in low rates of acid rock drainage (ARD) generation in the long term.

A thermal monitoring plan was developed to observe the freezeback of the tailings storage facility (TSF) and PRSF in order to comply with the Nunavut Water Board (NWB) water license 2AM-MEA1525. The License requires a monitoring plan to monitor temperatures of the TSF and PRSF during and after mining operations. Instrumentation has been installed in the PRSF to monitor the freeze back in the waste rock. Results to date from the thermistors indicate that freeze back is occurring in the PRSF structures. Thermal monitoring will continue during operations and closure. Based on the results of thermal modelling, it is expected that the material within the PRSF will freeze within two years of placement (BGC, 2004 - Meadowbank Gold Project Preliminary Geothermal and Slope Stability Modelling of Rock Storage Facilities). Additional modelling work will be completed as part of the PRSF cover performance assessment, taking into consideration climate change. An adaptive management plan includes monitoring of water quality during operations to confirm modelling predictions and to allow adjustments to the closure plan as required. Results of the modelling will be provided in the Final Closure and Reclamation plan for Meadowbank site.

Comment 13:

Section 6 (Mine Waste Rock) states that "The diversion ditch system further prevents any watershed freshet from reaching the RSF mitigating any potential contamination". It should be noted that any runoff or seepage that collects in the operations area (mine site) should be treated as effluent and not allowed to drain into the environment without proper treatment. Effluent is defined under the Metal Mining Effluent Regulations (MMER) to include runoff and seepage, and therefore it is recommended that the Proponent continue to monitor and develop an adaptive management plan in order to mitigate any issues that may arise.

Agnico Eagle's Response:

The diversion ditch system located around the tailings storage facility (TSF) and the Portage Rock Storage Facility (PRSF) is designed to collect non-contact water only. The diversion ditches collect runoff water from the nearby watersheds to avoid any contact with operations area. Diversion ditch water is monitored as per Water License 2AM-MEA1525 and Freshet Action Plan requirements. No contact water collected in the operations area is directed towards the diversion ditch. The contact water collected on site in the Portage area is managed via Water management structures such as sumps WEP1 and WEP2 and pumped to the South Cell Reclaim Pond. WEP1 and WEP2 sumps were built to ensure proper management of the contact water.

Currently, two effluents at Meadowbank are under MMER regulations; station ST-10/MMER-2, Vault Attenuation Pond to Wally Lake, and station ST-8/MMER-3, East Dike seepage to Second Portage Lake.

1.4 Appendix I1: Management Plans: Incinerator Waste Management Plan

Comment 14:

Section 5.2 (Acceptable Waste for Incineration/Waste Oil Furnaces) lists 'organic matter including food' as acceptable for incineration. It is not clear if 'organic matter' includes sewage, as sewage is no longer listed. If sewage is incinerated at the mine site, the Proponent should indicate under what waste type category sewage is captured, in both the Incinerator Waste Management Plan and the Incinerator Daily Report Log Book. The Proponent should also clarify whether sewage was incinerated during the stack tests.

Agnico Eagle's Response:
"Organic matter" doesn't include sewage. No sewage is incinerated. As per the "Operation and Maintenance Manual: Sewage Treatment Plant (Version 5, 2015), sewage sludge from the STP treatment units is transferred to the Tailings Storage Facility. The treated wastewater is pumped into the Stormwater Management Pond which is emptied in the Tailings Storage Facility when full. Therefore, no sewage was incinerated during stack testing.

1.5 Appendix E2 – 2015 Incinerator Daily Log Book

Comment 15:

The Incinerator Daily Report Log Book lists 'solid hydrocarbon waste' as solid burned material, however it is not clear what materials are included under this term. The Proponent should clarify what is included in 'solid hydrocarbon waste'.

Agnico Eagle's Response:
Solid hydrocarbon waste includes absorbent pads or rags containing hydrocarbon and that were used to contain and clean up spills or were used during maintenance operations occurring on site.

1.6 Appendix E4 – 2015 Incinerator Stack Testing Report

Comment 13:

The Incinerator Stack Testing Report states that the 2015 incinerator stack tests were carried out on June 19, 20, and 21. The Incinerator Daily Report Log Book lists the types of wastes (percentage of food waste, dry waste, and solid hydrocarbon waste), and the total volume of waste as a percentage of the maximum capacity of the incinerator. The table below provides waste data from the Incinerator Daily Report Log Book and the stack test results for dioxins and furans (PCDD/F) for June 19, 20, and 21.
It appears that there is an exponential increase in PCDD/F emissions with volume of waste incinerated. From the test conducted with the incinerator 50% full to the test with incinerator 75% full, the PCDD/F emissions increased by almost 6 times. The stack tests should be conducted with the maximum waste capacity of the

incineration and with a typical waste composition. Wastes should be collected prior to the tests to ensure that there is enough for full burn. It is noted from the Incinerator Daily Report log Book that there were many days where 100% (some days with more than 100%) of the maximum waste capacity of the incinerator was burned.

> ***Agnico Eagle's Response:***
> *Agnico Eagle agrees and incorporated this comment into its 2016 stack testing procedures. Discussions were held with the relevant department to ensure proper procedures are followed. Tests were conducted from June 30th to July 3rd and the percentages of total estimated volume of the primary chamber were 100%, 100%, 90%, and 90%, respectively, which is representative and consistent with load volumes at the incinerator on site.*
> *Agnico Eagle will ensure that future stack tests are conducted with the maximum waste capacity of the incineration and with a typical waste composition.*

2. Indigenous and Northern Affairs Canada

Comment 1a

AEM provides supplementary documentation as part of its annual report. Included in the documentation provided are an annual geotechnical inspection report (produced by Golder Associés Ltée or Golder) and reports produced from meetings held by the Meadowbank Dike Review Board (MDRB). This supplementary documentation often contains recommendations to the operator to help improve site management. However, during our review of the materials provided, we were not always able to determine if these recommendations were implemented. It would be beneficial if AEM developed, and included in its annual report, a tracking table that captures recommendations from all parties and reported on the implementation of these recommendations. The table could include information regarding whether a recommendation was adopted, how it was implemented and/or the rationale as to why a recommendation was not considered. A few examples of recommendations that could not be tracked include the following:

2015 Annual Geotechnical Inspection Report by Golder (Appendix B1, Annual Report)
o Recommendation to replace the safety berm on several areas of Bay-Goose Dike.
o Recommendation to puncture and repair a balloon filled with water that is present in the geomembrane liner installed on the Stormwater Dike.
o Recommendation to monitor the water quality of the ponding occurring at the Stormwater Dike and to provide the information to the engineering department so it can be determined whether or not the water is seepage from the North Cell.
o Recommendation to repair the geomembrane liner between Tanks 1 and 2 and at the south side of Tank 2 and 3 at the Baker Lake fuel tank farm and re-cover the liner with fill.
o Recommendation to repair two small channels of erosion and control the erosion of the foundation pad at the Meadowbank Main Camp fuel tank area.
o Recommendation to flag the piezometers that recorded data below 0°C in the past and to be very careful when interpreting their data as they might be broken.

Meadowbank Dike Review Board Reports (Appendix B4, Annual Report)

o Recommendation relating to the installation of equipment used to monitor temperature in the proposed cover of the Tailings Storage Facility with a suggestion to consider the approach used at the Diavik site.

o Recommendations relating to confirming the findings of the Willowstick survey which used electro-magnetic geophysical surveys to assist in identifying the potential pathways of seepage occurring at the Central Dike.

The above list is not inclusive of all recommendations that could not be tracked. INAC also recommends that this tracking carry over from year-to-year, so that any recommendations deferred to be completed in subsequent years, will be addressed in the following year's Annual Report.

Agnico Eagle's Response:

In the 2015 Meadowbank Annual Report, responses to the recommendations and comments from the Annual Geotechnical Inspection and the Meadowbank Dike Review Board Report are available. These responses from Agnico Eagle address all recommendations outlined in the reports, and explain how Agnico Eagle intends to address or implement the recommendations.

The implementation plan to address the recommendations of the 2015 Annual Geotechnical inspection is available in Appendix B1 of the 2015 Meadowbank Annual Report, following the Inspection Report.

The Meadowbank Dike Review Board Reports 17 and 18 are available in Appendix B4 of the 2015 Meadowbank Annual Report, along with the Agnico Eagle's responses to the recommendations. Agnico Eagle responses are sent to the members of the board for their review. During the yearly board meeting held at Meadowbank, Agnico Eagle responses are discussed with the board members and the board may request additional information if required.

Comment 1b

The water licence issued for the Meadowbank project requires the generation of a report regarding the operator's Seepage Monitoring Program (2AM-MEA1525 Part I, Item 14). INAC is of the opinion that AEM should be reporting all on-site seepage, including where there is an indication of potential seepage. An example was provided in the 2015 Annual Geotechnical Inspection Report by Golder (Appendix B1, Annual Report) which stated that ponding was observed at Saddle Dam 2, and recommended follow-up actions to determine whether it was seepage from the Tailings Storage Facility.

Agnico Eagle's Response:

In 2015, Agnico Eagle reported all on-site seepages in Section 8.3.7 of the 2015 Meadowbank Annual Report.

As part of the 2015 Annual Geotechnical Inspection, Golder made the following recommendations:

"Saddle Dam 1 has a permanent sump with a pump back system. For Saddle Dam 2, such a system is not considered necessary as no seepage is reported, but AEM should be prepared in case of any change especially since water has been observed ponding in the rockfill of SD2 during the inspection."

And

"Water was observed on the downstream side ponding within the rockfill embankment between Sta. 20+275 to Sta. 20+475. It is recommended to be on the lookout for change of the thermal regime of its foundation and upstream toe from the installed thermistors."

The following responses were provided by Agnico Eagle in Appendix B1 (Geotechnical Inspection Report) of the 2015 Annual Report:

"If required, a similar pumping system as the one located at Saddle Dam 1 would be installed at Saddle Dam 2. However, for now, a pumping system is not necessary at Saddle Dam 2."

And

"Moreover, thermistors located in Saddle Dam 2 are reviewed on a regular basis to detect any change or anomaly in temperature trend within the structure. No trend indicating changes in the thermal regime of Saddle Dam 2 have been observed to date. Review of the thermistors results will continue."

Comment 1c

AEM uses piezometers to collect data relating to groundwater flow, which assists in monitoring the integrity of dikes and dams. INAC made note of references to piezometer freeze up within the Annual Report and supporting documentation. It is important to record occurrences of piezometer freeze-up as data generated from a frozen piezometer is not reliable. INAC recommends that AEM report data gaps generated by frozen or malfunctioning piezometers or any other monitoring equipment, and propose mechanisms to replace faulty equipment or prevent future damage to these instruments. Additionally, AEM should discuss the implications of incomplete or inaccurate data on monitoring programs.

Agnico Eagle's Response:

Piezometers are installed to monitor water pressure, within or close to dewatering or tailings dams and pits area. The monitoring of the instrumentation on site, including the piezometers, is performed and recorded on a regular basis and will continue throughout the operations and in closure where applicable. A register of all the broken instruments is filed on a monthly basis by the geotechnical engineering team and is reported in the instrumentation report. When a piezometers is found to be non-

functional or unreliable because or freeze up or other damages, it is recorded and considered in the data interpretation. If deemed necessary, a broken piezometers or any other geotechnical instrumentation is replaced when possible, if, for example, no other geotechnical instrument provide information for the given area or if the information provided by the broken instrument is judged critical to the proper interpretation of the geotechnical data.

Comment 1d

Beginning in 2003, Golder's annual geotechnical inspection reports have reported on the condition of water management infrastructure installed on the road to the vault pit and have reported blockages in many culverts during freshet. Again, the 2015 Geotechnical Inspection Report noted damage to culverts, including one that had an entirely obstructed inlet due to rockfill and a broken outlet. It is unclear whether repairs have been performed each year and the new culverts damaged again, or if these culverts have remained unrepaired since 2003. INAC recommends that AEM report on repairs made to drainage infrastructure and remain diligent in ensuring adequate site water management.

Agnico Eagle's Response:
It should be noted that the culverts on the Vault road were installed in 2013 when the road was built, and not 2003. As mentioned in Agnico Eagle's response to the recommendation of the 2015 Annual Geotechnical Inspection, available in Appendix B1 of the 2015 Meadowbank Annual Report, the Vault road and the culverts are regularly monitored since the installation of the culverts in 2013. Similar inspections were performed during the 2016 freshet and throughout operation activities as per the Freshet Action Plan. The culverts' area located on the Vault Road between the diversion ditches and Lake NP1 is closely monitored during freshet period as per the Freshet Action Plan. Snow removal in strategic areas has proven to be effective to ensure proper flow during freshet. Snow removal was completed around some of the culverts before freshet 2016 to ensure proper flow of water and to minimize erosion. No obstructed flows were observed during the 2016 freshet. Additional snow removal on the Vault road culverts will be performed if required before the next freshet to ensure proper water management. Turbidity barriers can be installed as a mitigation measure if needed.

It is worthwhile to mention also that as part of the Freshet Action Plan, inspections are undertaken at all culverts along the AWAR to ensure that water during freshet is flowing freely and no erosion is occurring. If necessary, snow and ice removal may be required to allow the water to flow as per design specifications.

Comment 1e

AEM currently provides a comparison of predicted water quality and quantity values, and the actual values recorded during their annual reporting cycle. INAC is of the opinion that a comparison of originally predicted

values and year-overyear water quantity and quality values would provide for a more robust analysis and would assist with identifying trends. The identification of trends could assist in identifying problem areas in terms of water quality and quantity prior to the occurrence of issues such as water licence exceedances.

Agnico Eagle's Response:

As per NIRB Comments to 2014 Annual Report "(…) provide comparisons between originally predicted and measured water quantity and quality in 2014. This comparison only uses the current year, but a year over year comparison would help identify trends." In the 2015 Annual Report, the predicted water quantity and quality within the pits was compared to the measured water quantity and quality. This comparison uses a year over year comparison.

The comparison between the predicted water quantity and quality within the pits will be compared to the measured water quantity and quality done for 2012 to 2015. The appendix C4 of the 2015 Meadowbank Annual Report provides a comparison between predicted (originally predicted in support of the NWB license) and measured water quality and quantity within Portage, Goose and Vault Pit. The appendix includes the measured data for 2015, and also from 2012 to 2014.

As required by the Water License 2AM-MEA1525, the Water Quality Forecast model is completed yearly with the measured data from site, as well as the water balance used on site. This model is calibrated yearly with updated data from site and includes the current water management practices. Review of the water quality predictions for pit reflooding is completed in this forecast. The forecast identify parameters that may require treatment at closure according to the CCME limits, and also present treatment options that could be considered if treatment is required.

Rationale Recommendation 2

Part I, Item 11 of NWB Water Licence No. 2AM-MEA1525 states that "the Licensee shall submit to the Board as part of the Annual Report, the Geotechnical Engineer's Inspection Report. The Report shall include a cover letter from the Licensee outlining an implementation plan to address the recommendations of the Geotechnical Engineer."
Although the Licensee provided a 2015 Geotechnical Engineer's Inspection Report (Appendix B1 of the Annual Report), a cover letter outlining an implementation plan to address the recommendations of the Geotechnical Engineer cannot be found.

Recommendation 2

INAC recommends that the Licensee provide a letter outlining how it will address recommendations included in the 2015 Geotechnical Engineer's Inspection Report by September 30, 2016.

Agnico Eagle's Response:

The implementation plan to address the recommendations of the 2015 Annual Geotechnical inspection is available in Appendix B1 (Letter: Implementation Plan for 2015 Annual Geotechnical Inspection recommendations) of the 2015 Meadowbank Annual Report, following the Inspection Report. This implementation plan was submitted to the Nunavut Water Board in March 2016.