December 22nd, 2015

Sophia Granchinho
Senior Technical Advisor
Nunavut Impact Review Board
29 Mitik St
P.O. Box 1360
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X0B 0C0

Re: NIRB File 03MN107 – AEM response to Technical Comments received from Parties regarding AEM's Vault Pit Expansion proposal for the Meadowbank Gold Mine Project

Dear Ms. Granchinho,

As requested, the following information and comments are intended to address the recommendations outlined in response to the NIRB Technical Comments Requests and comments in the letter dated December 8th, 2015, *Technical Comments received from Parties regarding AEM's Vault Pit Expansion proposal for the Meadowbank Gold Mine Project.* AEM did not receive any additional technical comments from the Kivalliq Inuit Association and Nunavut Tunngavik Inc., the Government of Nunavut, Environment Canada, nor Natural Resources Canada.

The following responses are intended to address Indigenous and Northern Affairs Canada (INAC) and Department of Fisheries and Oceans (DFO); AEM will continue to work with DFO and will address the comments in greater detail with DFO staff during the authorization phase of the project.

Should you have any questions or require further information, please contact Stephane Robert at stephane.robert@agnicoeagle.com or 819.763.0229, Larry Connell or Ryan Vanengen (see below).

Regards,

Agnico Eagle Mines Limited – Meadowbank Division

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1.0 AANDC TRC

1.1 AANDC-TRC #1: Waste Rock Management

Subject/Topic: Site specific geochemical characterization data for Phaser and BB Phaser pits has not been approved.

Reference(s): AEM response to AANDC-IR #10 and #11. 2014 Annual Report Section 5.1 Page 16-17/EIS Addendum-Main Document Page 7.

Summary: Site specific geochemistry data for the Phaser and BB Phaser Pit expansion areas has not been provided. Regional general geologic information is provided, however this is not sufficient to evaluate geochemical character of the waste rock materials from the expansion area.

Importance of Issue to Impact Assessment: This issue relates to being able to verify that the Proponents assertion that waste rock generated from the expansion area is equivalent to that generated from the Vault Pit area.
Without assessing site specific geologic descriptions and site specific geochemical data it is difficult to ensure that predictions and criteria used to assess PAG in the Vault pit are applicable to the expansion area. This information is required to support the validity of the assertion that waste rock generates from the expansion area has low potential for acid rock drainage and variable potential for metal leaching, and that appropriate waste rock handling and management is being carried out.

Detailed Review Comment: In AEM's response to AANDCs IR # 10 and # 11, ARD and ML potential from the Vault Pit is provided, however the information request is specific to samples and data collected from the proposed Phaser and BB Phaser pits. In the maps and information provided in AEM's response to IRs and FEIS addendum, the waste rock type is described broadly as being within the Intermediate Volcanic structure, however detailed geologic information is not provided, such as alternation types or presence or absence of sulphides, which can be used to verify geochemical properties within the Phaser pit and extension areas. The FEIS addendum indicates a low potential for acid drainage and a variable potential for ML, however specific metals and their potential effects have not been provided. The maps provided show borehole locations but do not contain a geological legend, and the borehole logs were not provided. AEM has indicated that there is a sound understanding of rock within the extension area, with recent acid base accounting data from the Phaser Pit expansion area, and AANDC requests that this more detailed geologic information and sample data specific to the Phaser and BB Phaser pits be provided. It is important to fully understand any differences in behavior and chemistry between the currently permitted Vault Pit and the Phaser and BB Phaser expansion areas waste rock for effective management during mining and mine closure.

Recommendation/Request: AANDC requests that AEM commits to providing geochemical data in the form of laboratory analysis and detailed geologic and mineralogical descriptions from the Phaser and BB Phaser pits along with detailed geologic and mineralogical descriptions from the Vault Pit for comparison. Appropriate geological data to be provided would include drill logs from 5 to 10 boreholes spatially distributed across Phaser and BB pits intersecting the proposed pit walls, with 3 representative boreholes from Vault pit for

comparison. Geology should be described to a level consistent with that utilized in exploration geology, including rock type, alteration types, noted mineralization, veining and other noted mineral occurrences and geologic features. If preferred, AEM could provide a map of all boreholes from Phaser, BB Phaser and Vault pit areas for specific boreholes to be identified and requested. Pending the review of the site specific geological and geochemical data, AANDC requests that AEM commits to completing confirmatory testing of waste rock for ARD/ML during operations of Phaser and BB Phaser Pit, and commit to appropriate handling and management of PAG or ML materials.

Resolved/Unresolved: Resolved (pending review of provided data). Geochemistry information pertaining to PAG/non-PAG nature of rock material from Phaser and BB Phaser was provided in AEM's preliminary response to AANDC Technical Comments (see Appendix A). At the Technical Meeting, AANDC had outstanding geochemistry issues and requested that AEM confirm that metal leaching static test work such as Shake Flask Extraction was undertaken with this set of test work and requested that AEM provide documentation of the results. The Technical Review issue was resolved during the Technical Meeting through AEM's confirmation that metal leaching static testing had been conducted and committed to providing the results of the bulk metal and metal leaching static testing (SFE Leach) for site-specific samples taken within the proposed Phaser and BB Phaser Pit.

AEM's Response:

AEM provided the requested geochemistry information and followed up directly with AANDC staff with additional information to address questions related to the geochemistry results. AEM agrees with AANDC; this issue has been resolved.

1.1 AANDC-TRC #2: Public Consultation

Subject/Topic: Public Consultation

Reference(s): AANDC-IR #15, EIS Addendum, Section 4.5 and Table 4.5.1

Summary: Consultation record is comprehensive and complete, however it is unclear on whether project design or features have taken into account public preferences or concerns raised during consultations.

Importance of Issue to Impact Assessment: This information is important to understand what issues or concerns related to this project amendment have been raised by affected community members and groups and how they have been/ will be addressed by AEM.

Detailed Review Comment: In response to AANDC-IR #15 AEM summarized consultation and public engagement undertaken to date, as well as provided Appendix A – records of consultation, relevant presentations and meeting minutes. AEM also indicates that few concerns have been raised by HTO's and communities regarding impacts to Phaser Lake fish habitat losses as a result of mining Phaser Pits. However, it would be useful for reviewers to understand if any public comments or concerns (of the few that were raised) were considered or incorporated into project design or features. Conversely it would be useful for reviewers to understand if none of the concerns or issues raised were incompatible with the proposed project design and therefore no consideration or changes were needed.

Recommendation/Request: Can the Proponent provide any information on areas where public concern or comments were taken into consideration or incorporated into project design or features?

Resolved/Unresolved: Unresolved.

AEM's Response:

Given that it is an extension to the approved Meadowbank mine, that Phaser Pit and BB Phaser Pits are mainly within the footprint of Phase Lake, that there are minimal impacts to terrestrial habitat (and therefore no significant wildlife impacts predicted as a result of the pit and associated pit roads), and lastly that it is a continuation of the approved Meadowbank mine, few comments have been received from the public regarding the project design of Phaser Pit and BB Phaser Pit. As stated in AEM's response to AANDC IR 1.14, during the early stages of the Phaser Pit project design, AEM discussed the site layout and fisheries offsetting plans (at the time no net loss plans) post closure with stakeholders. Of the offsetting options discussed for Vault and Phaser Lake, stakeholders preferred the option of improving access to otherwise isolated or poorly connected lakes. This was discussed during the July 13th, 2011 workshop with the KIA, HTO, DFO and Baker Lake hamlet in Baker Lake and led to the concepts in the 2012 No Net Loss Plan and the most recent offsetting plan for Phaser Lake. During the NIRB community session in Baker Lake in September 2015, the community had few concerns or comments related to Phaser Pit design. AEM has not received any additional comments from the public regarding the Vault Expansion into Phaser Lake (Phaser Pits) design, and therefore no new concepts have been integrated into the design since 2012, when the water management and no net loss plans were finalized.

1.1 AANDC-TRC #3: Socio-Economic Monitoring

Subject/Topic: Socio-Economic Monitoring of Project Effects

Reference(s): EIS Addendum, Section 4.9.10, p.104, AANDC #16

Summary: Applicability of the existing Meadowbank Socio-Economic Monitoring Working Group and Monitoring Program to the proposed development.

Importance of Issue to Impact Assessment: Evidence of adequate monitoring and mitigation is important for reviewers in assessing the project.

Detailed Review Comment: In response to AANDC-IR #16 the Proponent outlined that project employment conditions at the time of the proposed development may be different than what is outlined in Section 4.9.10 of the EIS Addendum, depending on a variety of factors. On page 104 of the EIS Addendum the Proponent outlines the current status of the Kivalliq Socio-Economic Monitoring Committee, the Meadowbank Socio-Economic Monitoring Working Group and monitoring program. Given that a number of the socio-economic effects of the proposed development amendment application are uncertain as per the response to AANDC-IR #16, it is recommended that the Terms and Conditions relating to Socio-Economic Monitoring and Socio-Economic Monitoring Committees for the Meadowbank Project apply to this proposed project. Further, the

proposed project should be incorporated into all existing socio-economic monitoring in place for the Meadowbank project.

Recommendation/Request: It is recommended that Terms and Conditions applying to the Meadowbank project related to a Socio-Economic Monitoring Committee and Socio-Economic Monitoring Program also apply to this proposed development. It is requested that the Proponent commit to incorporating socio-economic monitoring of this proposed development into the existing socio-economic monitoring work on-going for the Meadowbank project. Specifically this could be achieved by including a relevant provision in the Terms of Reference for the Meadowbank Socio-Economic Monitoring Committee. AANDC recommends the following wording be inserted into the Terms of Reference: "2.3 The Program and Terms of Reference shall apply to any project phase or development granted pursuant to Article 12, Part 8 of the Nunavut Land Claims Agreement and any additional Project Certificate Terms and Conditions established as a result."

Resolved/Unresolved: Resolved pending written confirmation in response to technical comments that Terms of Reference wording is accepted.

AEM's Response:

AEM confirms that it was always its intent that the existing Meadowbank Project Certificate conditions relating to the socio-economic monitoring of the Meadowbank Project would continue to be in effect for this planned expansion of the Vault Expansion into Phaser Lake (Phaser and Phaser BB pits). AEM commits to continuing its involvement, participation and reporting through the existing Kivalliq Socio-Economic Monitoring Committee for its extended Meadowbank operation including extension of the Vault Phaser and Phaser BB pits if approved to move forward.

AEM can also confirm that it has previously agreed to the proposed modification to the Terms of Reference for the Meadowbank Socio-Economic Monitoring Committee under the Kivalliq SEMC; specifically to the inclusion of the following wording into the Terms of Reference: "2.3 The Program and Terms of Reference shall apply to any project phase or development granted pursuant to Article 12, Part 8 of the Nunavut Land Claims Agreement and any additional Project Certificate Terms and Conditions established as a result.".

2.0 DFO TRC

2.1 DFO-TRC #3.1: Fish Habitat Monitoring

Reference(s): Section 4.6 p.21 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

4.3.1.3 p.126 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Agnico Eagle Mines Ltd. June 2013. Habitat Compensation Monitoring Plan Version 2.

Summary: "No changes to the current monitoring plan are proposed" p. 21 (Note: version referenced is 2013 Habitat Compensation Monitoring Plan (HCMP)).

"The habitat monitoring program was finalized by AEM in consultation with DFO in 2014 (AEM, 2014) and maintains the major elements of the original 2008 version . . . to meet the conditions of the updated Fisheries Authorizations."p.126

Importance of Issue to Impact Assessment: Changes to the Habitat Compensation Monitoring Program will be required. The document referenced (Habitat Compensation Monitoring Program will require review to ensure it meets DFO requirements for monitoring of the newly proposed Phaser and Baby Phaser Pits.

Detailed Review Comment: May be typo's between page 21 and 126 when referencing versions of the HCMP.

Recommendation/Request: 3.1.1 DFO requests AEM correct any discrepancies when referencing versions of the HCMP.

3.1.2 DFO requests AEM incorporate monitoring of the effectiveness of Phaser Lake fish habitat features into the development of subsequent iterations of the Habitat Compensation Monitoring Plan and ensure this meets the new requirements for offsetting serious harm to fish.

3.1.3 Commit to review of the HCMP with DFO during the Regulatory Phase of review.

AEM's Response:

AEM is committed to reviewing the 2014 Habitat Compensation Monitoring Plan (HCMP) during the authorization phase. It should be noted that the 2014 HCMP includes monitoring of Phaser Lake fish habitat features since development of a Phaser Pit was planned at that time (although this pit was subsequently excluded from AEM's 2013 application for DFO Authorization). However, following recent discussions with DFO, AEM recognizes that offsetting measures proposed for Phaser Lake may need to be revised. As a result, AEM will review and accordingly revise the 2014 Meadowbank HCMP in consultation with DFO during the Regulatory Phase of review.

2.2 DFO-TRC #3.2: Life of Mine – Construction Schedule

Reference(s): 3.6.1 p.12 & 3.6.2 p.13 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Agnico Eagle Mines Ltd. November 2013. No Net Loss Plan Implementation Cost Estimate and Construction Schedule Version 2.

Summary: "It should be noted that this expansion amounts to approximately 30 days of additional mining activity"p.12

"The construction and dewatering will begin in 2016 and fish habitat losses will extend to the end of the Meadowbank mine; at that point the lake will be reflooded"p.13

Importance of Issue to Impact Assessment: DFO would like clarification on the duration of construction related impacts to fish and fish habitat both for the Vault Expansion and the overall life of Meadowbank mine.

Detailed Review Comment: "Fish habitat losses will extend to the end of the Meadowbank Mine" is a general statement and is not clear if this is in reference to Phaser Lake impacts specifically or describes the overall Meadowbank Project including exploration sites.

Recommendation/Request: 3.2.1 DFO requests AEM clarify the duration of fish and fish habitat impacts associated with the Vault Expansion into Phaser Lake. Impacts to Vault and Phaser Lakes are considered destruction of fish habitat.

3.2.2 DFO requests AEM update the No Net Loss Plan Implementation Cost and Construction Schedule 2013 V.2 document to reflect the current estimated mine life schedule and costs. This can be completed in preparation for the regulatory phase.

AEM Response to 3.2.1:

The duration of impacts to fish and fish habitat in Phaser Lake will extend from the initiation of dewatering and fishout which is planned for July 2016 until reflooding begins in approximately 2018 with Vault and Phaser completely reflooded (est. 2025). More specifically, the estimated timeline for dewatering and fishout is planned to be completed over 2.5 months until mid-September. Pre-stripping road construction will follow in Q4 of 2016. Phaser Pit and BB Phaser Pit operations will begin and will be completed in Q1 2017 (operations will be conducted during the winter period); these operations will take place concurrent with Vault Operations. During the freshet of 2017, AEM will allow Phaser Pits to naturally reflood. In Q3 2018, operations at Vault Pit will cease and AEM will begin actively reflooding Vault and Phaser Pits. Reflooding will continue until breaching of the Vault Dike (est. 2025) allows re-population (Phaser Lake is estimated to re-fill naturally within 96 months). AEM will clarify this timeline with DFO in meetings planned for January and will finalize this in a revised Offsetting Plan during the regulatory phase of review.

AEM Response to 3.2.2:

AEM will update the requested document during the regulatory phase of review.

2.3 DFO-TRC #3.3: Phaser Lake Fish Out

Reference(s): 4.19.4 p.73/74 & 4.21.2.3 p.114 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Summary: "Overall. . .AEM believes this is an improvement in the fish habitat of Phaser Lake as losses to fish habitat and productivity of the system will be maintained through fish salvage. . ."p.73/74

"A site specific fish-out work plan, based on Tyson et al. (2011), will be developed in consultation with DFO representatives and implemented upon approval by DFO." p.114

Importance of Issue to Impact Assessment: To correctly determine whether DFO agrees with AEM's conclusions on losses to fish and fish habitat.

Detailed Review Comment: The mortality rate associated with the fish-out will likely result in approximately 25% mortality almost entirely associated with gill netting, therefore there will be some loss to the local fisheries productivity. There is also potential that Wally Lake is already at carrying capacity, and that the fish transfer may result in increased competition in that waterbody, thereby not supporting a long term increase in productivity to account for losses in Phaser Lake.

It will take time and monitoring to determine if the stocked fish population in the re-filled pit is self-sustaining following closure and reclamation, as well as whether constructed fish habitat enhancement features are functioning as intended.

Recommendation/Request: 3.3.1 DFO requests AEM revise the conclusion on p.73 of the Addendum to account for anticipated mortality associated with the fish-out of Phaser Lake, and to determine if transfers to Wally Lake are likely to result in long term increases in fish productivity.

3.3.2 DFO requests AEM include consideration of alternative fish-out methods in the development of the Fish-out Work plan for the Vault Expansion to reduce mortality, if the transfer fish to Wally Lake is likely to result in benefits. This will be discussed with DFO further during the Regulatory Phase of review.

AEM's Response to 3.3.1:

AEM agrees with DFO that a certain proportion of the fish salvaged from Phaser Lake will not survive gillnetting and transfer. It is also possible that the carrying capacity of Wally Lake has been reached, resulting in no long-term increase in fish populations as a result of the transfer. AEM did not intend to imply that fish salvage and transfer form a component of the offsetting strategy. Rather, AEM wishes to indicate that they are committed to minimizing impacts through all means possible, so salvage and transfer will be attempted in order to maximize local fish productivity in the short term, whether or not benefits can be quantified. Since temporary (<10 yr) habitat losses in Phaser Lake are offset in the long term by a ratio of more than 2:1, these components are considered an extra benefit, rather than a quantifiable component of the offsetting plan.

AEM Response to 3.3.2:

Given our success fishing out Second Portage Northwest Arm, Bay Goose basin and Vault Lake using proven and successful methods, AEM requests specific guidance from DFO. Nevertheless, AEM is open to consideration of alternative fish-out methods, and will discuss the Fish-out Work Plan with DFO further during the Regulatory Phase. As in the past, meristics will be done on a subset of fish that do not survive capture to meet conditions of the DFO fishout protocol; fish will be frozen and provided to the Baker Lake community.

2.4 DFO-TRC #3.4: Offsetting Plan

Reference(s): Section 2.0 p.4 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

Section 1.1.5 p.4 Agnico Eagle Mines Ltd. October 2012. No Net Loss Plan.

Fisheries and Oceans Canada. October 2013. Fisheries Productivity Investment Policy: A Proponents Guide to Offsetting.

Summary: "The habitat evaluation procedure (HEP) that was used to quantify habitat losses and gains for Phaser Lake in this report is identical to the procedure used for the 2012 NNL assessment." p.4 Section 2.0 Appendix D

"Despite the use of peer-reviewed literature to determine habitat suitability values, it should be noted that significant uncertainty remains when linking specific habitat types to productivity of fish populations."p.4 2012 October NNLP

Importance of Issue to Impact Assessment: Determination of whether AEM has provided an Offsetting Plan that is consistent with DFO advice.

Detailed Review Comment: In addition to the significant uncertainty associated with linking fish productivity to HSI values, the EIS Addendum does not consider advice as per DFO's (2013) Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting whereby "Time lags should be avoided where possible by building the offsetting measures prior to the project. When a time delay is unavoidable, the offset must include measures that account for the time delay to make up for the lost fisheries productivity."

Recommendation/Request: 3.4.1 DFO requests AEM revise the Offsetting Plan Addendum to provide a statement as to how AEM considered time lags and uncertainty of success with respect to relying on the habitat based model for quantification of losses. This should be completed in preparation for the regulatory phase of review.

AEM's Response:

According to DFO's detailed comment 3.4, "the EIS Addendum does not consider advice as per DFO's (2013) Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting whereby "Time lags should be avoided where possible by building the offsetting measures prior to the project. When a time delay is unavoidable, the offset must include measures that account for the time delay to make up for the lost fisheries productivity."

In consultation with DFO, AEM will address this concern with DFO during the regulatory phase. However, since offsetting options are generally limited near Baker Lake, the majority of offsetting for the Meadowbank site (including Phaser Lake) will occur following a time lag. AEM has considered losses associated with time delays and uncertainty of success by providing habitat offsets at a ratio of more than 2:1 for Phaser Lake, as well as

complementary measures (funding for research). This is according to DFO's (2013) Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting, page 10, which describes measures that would account for a time delay - "For example, measures may include building more habitat than is lost so that once the habitat becomes functional it will produce enough fish to make up for the productivity lost during the time lag."

During the Regulatory Phase of review, AEM will work with DFO and revise the Offsetting Plan Addendum to clarify how time lags and uncertainty of success were considered, in the manner described above. Furthermore, consideration will be made by AEM to introduce new, additional offsetting measures to account for this time lag.

2.5 DFO-TRC #3.5: End Pit Lakes – Fish Habitat Features

Reference(s): Fisheries and Oceans Canada. 1991. Underwater World – Lake Trout. DFO/4364.

Section 4.1.1 p. 16 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

DFO. 2014. Science Advise on Offsetting Techniques for Managing the Productivity of Freshwater Fisheries. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2013/074.

Summary: For species such as Lake trout "it typically takes a long time to mature sexually. . . as many as 16 years in Great Bear lake," for example. In northern environments, fish spawn less frequently than in the south, "fish may spawn only every third year." DFO 1991.

AEM posits "Phaser Pit development will provide enhanced overwintering habitat, which is not abundant in this area."p.16

However, in the north species such as Lake trout swim closer to the surface during the winter and in spring and fall "the fish are more apt to swim up over underwater ledges or along rocky shorelines at a depth of a few metres." DFO 1991.

"Uncertainties regarding the effectiveness of offsetting plans or techniques will usually be greater than the uncertainties regarding the impact magnitude of any project for which offsetting is needed. These uncertainties have to be taken into account in the design of offsetting programs."p. 6 DFO 2014.

Importance of Issue to Impact Assessment: Determination whether all impacts have been considered and appropriate offsetting proposed.

Detailed Review Comment: Littoral habitat will be minimal and absent in some areas of the pit lakes

Recommendation/Request: 3.5.1 DFO requests AEM elaborate on design plans to create fish habitat features designed to suit the species anticipated to be present

3.5.2 DFO requests AEM explain how AEM proposes to measure and account for successful gains in fisheries productivity in offsetting calculations in the end pit lake for slowly maturing species such as Lake trout.

3.5.3 DFO requests AEM explain the emphasis on gains associated with increases in depth, with consideration to the utilization of more shallow habitat for which to carry out life processes as noted for species such as Lake trout.

AEM's Response to 3.5.1:

AEM notes that lake trout, round whitefish, and burbot have been found in Phaser Lake through gillnetting studies conducted in 2004 as a component of the Baseline Aquatic Ecosystem Report (Azimuth, 2005), and in 2012 to supplement data for development of the 2012 NNLP (AEM, 2013; Appendix E). In habitat models, two small-bodied fish species (slimy sculpin and ninespine stickleback) are also assumed to be present, since they are generally difficult to catch in gillnets and are common locally. Following re-flooding of the Vault and Phaser Pits, Arctic char are also assumed to be able to inhabit Phaser Lake, since several char were found in the Vault Lake fish-out.

Below are Phaser Lake depth profile "captions" taken from the Offsetting Plan (Figure 3-2 and 4-2, respectively). As illustrated in Figure 3.5.1b, it is important to note that Phaser Lake during closure will consist of shallow (0-5m) littoral areas with natural substrate located in the western and southern basin of Phaser Lake that will be connected to Phaser and BB Phaser pits; it is expected that once Phaser Lake is reflooded, Phaser Lake will be a composite of end pit habitat features and the restoration of natural lake features that pre-existed. Remnants of haul roads, partially backfilling Phaser Pit and the Phaser Pit and BB Phaser Pit caps will create areas of coarse-substrate shoals or boulder gardens at near-original lake depths that will suit small-bodied species, spawning and nursery habitat for larger species, and foraging for benthic-feeding species (e.g. burbot, round whitefish and lake trout). As illustrated in Figure 3.5.1a, presently, the majority of Phaser Lake is already relatively shallow (<2 m) and consists of mixed or coarse substrate. As per original NNL Plans and authorizations for Meaodowbank, the deep end pit features will improve habitat diversity within this shallow lake, and provide foraging and overwintering habitat for species that rely on larger pelagic zones (eg. adult Arctic char and lake trout).

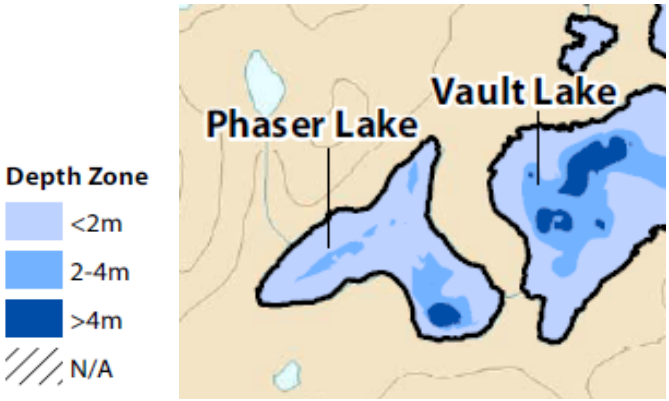

Figure 3.5.1a – Bathymetry of Phaser Lake

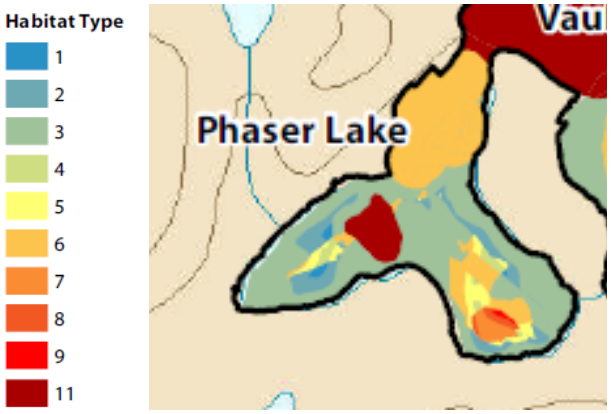

Figure 3.5.2b – Post closure habitat mapping – note the deep BB Phaser pit in the center of Phaser Lake and backfilled Phaser Pit in the north east basin; the east basin and south basin habitat will be restored.

AEM Response to 3.5.2:

Under the current Habitat Compensation Monitoring Plan (AEM, 2014), monitoring of Phaser Lake after re-flooding will continue until at least 2030, which is approximately 5 years post-flooding. Since it is anticipated that fish of all life stages will re-inhabit (or will be stocked in) Phaser Lake, it is expected that this time period will be sufficient to demonstrate full ecological functionality (reproduction, growth and survival). AEM will review the 2014 HCMP in consultation with DFO during the Regulatory Phase of review and may be amend as necessary.

AEM Response to 3.5.3:

In their detailed comments, DFO notes that: "AEM posits "Phaser Pit development will provide enhanced overwintering habitat, which is not abundant in this area."p.16 However, in the north species such as Lake trout swim closer to the surface during the winter and in spring and fall "the fish are more apt to swim up over underwater ledges or along rocky shorelines at a depth of a few metres." DFO 1991".

AEM recognizes the importance of shallow littoral habitat for all species present in the Meadowbank area. In recognition of the reduced functionality of deep water habitat provided by end pit lakes, AEM developed habitat suitability indices specifically for pit areas during the 2012 NNLP consultation process and involved DFO throughout the process of developing this model. Generally, this habitat is only considered optimal for overwintering, since it does not freeze to the bottom, and for foraging for pelagic species (Arctic char and lake trout). Since lakes in the Meadowbank area freeze to a depth of 2-4 m in the winter, all habitat (natural or end pit lake) greater than 4 m was considered optimal for overwintering in the habitat suitability model. A large proportion of Phaser Lake is in fact < 2 m depth, with only a small area > 4 m (0.52 ha; see Figure 3-2 of the Offsetting Plan). Therefore, AEM continue to assert the construction of Phaser Pit and BB Phaser Pit will increase the availability of overwintering habitat in Phaser Lake by just over 4x. Both deep water areas (BB Phaser Pit and the naturally deeper area to the south) will be surrounded by shallow littoral habitat typically <2 m, but also some areas from 2-4 m. This shallow habitat will still be much more abundant in Phaser Lake than deep water habitat. The BB Phaser "end pit lake" will occupy 1.79 ha of the total 27.29 ha of Phaser Lake, the majority of which is < 2 m deep. A post operation lake with end pits, backfilled portions, pit caps and scarified roads that will be connected to restored basins of Phaser Lake will provide a diversity of habitat consistent other

lakes nearby. It can also be noted that the proposed end depth of BB Phaser Pit is approximately 50 m. This is within the natural depth range of larger lakes found in the area (for example, maximum depth of Third Portage Lake is approximately 40 m).

2.6 DFO-TRC #3.6: Habitat Evaluation Procedure Calculations

Reference(s): Section 2 p.4 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

2.1.4.2 Fisheries Weights p.7 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Kenchington,E., Duplisea, D.E., Curtis, J.M.R., Rice, J.C., Bundy, A., Koen-Alonso, M., and Doka, S.E. 2013. Identification of Species and Habitats that Support Commercial, Recreational or Aboriginal Fisheries in Canada. DFO Can. Sci. Advis. Sec. Res. Doc. 2012/110. iv +68 p.

Summary: Prey species (Slimy sculpin, Ninespine stickleback) have been discounted to a weight of 0.

Importance of Issue to Impact Assessment: Considering that Phaser Lake is currently disconnected from other fish bearing waterbodies, the prey species within the lake are currently providing a support function to the CRA fishery species, though the value of 0 does not reflect that.

Detailed Review Comment: "All forage species may be protected as fish habitat of CRA fishery species, if their status affects the productivity of fish that are part of a CRA fishery." Kenchington et al., 2013.

Recommendation/Request: 3.6.1 DFO requests AEM revise the calculations of loss to consider the support function of Ninespine stickleback and Slimy sculpin to other fish in Phaser Lake.

AEM's Response:

This DFO comment references Section 2.1.4.1 of the EIS Addendum, Appendix D, Offsetting Plan for Phaser Lake, which describes Fisheries Weights. Fisheries weights were developed in AEM's 2012 NNLP to discount habitat types according to the value of a given species present in the region for subsistence fishing (now Aboriginal fishery). Similar to the Fisheries Screening Assessment and Offsetting Plan - Meliadine Gold Project (Golder Associates, June 2015), the fishery value for slimy sculpin and ninespine stickleback was set at zero because these species are not a targeted fishery of local harvesters.

It should be noted that in the Meadowbank model, fish species weights of biomass and fishery value were considered and were weighted equally. Therefore, the total value of prey species (slimy sculpin and ninespine stickleback) is not discounted to 0, but their overall habitat weighting is a function only of their existing biomass, rather than both their biomass and value to the subsistence (Aboriginal) fishery.

AEM will discuss this with DFO during the regulatory phase. AEM maintains that it is appropriate to apply fishery value weights as described in Section 2.1.4.1 of the EIS Addendum, Appendix D, Offsetting Plan.

2.7 DFO-TRC #3.7: End Pit Lakes – Fisheries Weights

Reference(s): Section 2.0 p.7 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Subsection 35(1) Fisheries Act, RSC 1985, c F-14

Summary: "Fisheries weights reflect the relative value of each species for subsistence fishing. There are no commercial fisheries in the project lakes area."p.7

As per Subsection 35(1) of the Fisheries Act 'No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.'

Importance of Issue to Impact Assessment: The Addendum EIS recognizes the Aboriginal fishery, discusses that there are no Commercial fisheries impacted by the project, but does not recognize Recreational fisheries. Recognition of the impact to fish that are part of or support a Recreational fishery is equally important under the Fisheries Act.

Detailed Review Comment: AEM must also give fisheries value to the recreational fisheries species including Arctic Char, Lake Trout, Round Whitefish, Burbot, Cisco and Arctic Grayling. Ninespine Stickleback and Slimy Sculpin support these fisheries in waterbodies connected to CRA waterbodies.

Recommendation/Request: 3.7.1 DFO requests AEM revise the EIS Addendum Appendix D Offsetting Plan to include Recreational fisheries species weights as well as Aboriginal fisheries species.

AEM's Response :

During the regulatory phase, AEM will revise the EIS Addendum Appendix D Offsetting Plan to include a discussion of Recreational fishery species weights.

2.8 DFO-TRC #3.8: Phaser Lake Fish Species

Reference(s): Section 2.0 p.8, Section 4.13.2 p.59 and Section 4.19.4 p.73 Agnico Eagle Mines Ltd. July 2015. Environmental Impact Statement Addendum for the Meadowbank Project: Vault Expansion to Include Phaser Pit and BB Phaser Pit.

Section 3.0 p.9 & Section 5.1 p.22 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

Section 2.0 Table 2.5 p.21 Agnico Eagle Mines Ltd. October 2012. No Net Loss Plan.

Summary: "In the 2012 NNLP, burbot, ninespine stickleback, and slimy sculpin were erroneously excluded from habitat calculations in Phaser Lake."p.8

"The fish population of Phaser Lake was examined briefly in a 2004 study for the BAEAR (Azimuth, 2005), and again in 2012 (2012 NNLP, Appendix E). It was found to contain populations of lake trout and round whitefish. Small-bodied fish are also assumed to inhabit this lake." p.9

"Both lakes were found to contain small populations of lake trout and round whitefish."p.59

"Phaser Lake was found to contain populations of lake trout and round whitefish."p.73

"Phaser Lake contains 67% LKTR, 32% RNWH, 1% BURB." p.21 2012 NNLP

Importance of Issue to Impact Assessment: It is important for DFO to clearly understand which species will be impacted by the project.

Detailed Review Comment: As identified by the above referenced excerpts taken from AEM's submissions, there overall appears to be Lake trout, Round whitefish, Burbot, Ninespine stickleback, and slimy sculpin in Phaser Lake.

AEM indicates that further detail on their inclusion in the 2015 Addendum is located in Section 5 of the Offsetting Plan. However, Section 5 does not discuss these species.

Recommendation/Request: 3.8.1 DFO requests AEM revise the EIS Addendum and Appendix D Offsetting Plan to clearly list all the fish species present in Phaser Lake

3.8.2 DFO requests AEM provide further detail on how these erroneously omitted species were included in calculations of loss in the Appendix D Offsetting Plan.

AEM's Response to 3.8.1:

AEM will clarify this with DFO during the regulatory phase. Lake trout, round whitefish, and burbot have been found in Phaser Lake through gillnetting studies conducted in 2004 as a component of the Baseline Aquatic Ecosystem Report (Azimuth, 2005), and in 2012 to supplement data for development of the 2012 NNLP (AEM, 2013; Appendix E). In habitat models, two small-bodied fish (slimy sculpin and ninespine stickleback) are also assumed to be present, since they are generally difficult to catch in gillnets and are common locally. Following re-flooding, Arctic char are also assumed to be present, since several were found in Vault Lake, which is planned to be connected to Phaser Lake. AEM will clarify this list in the EIS Addendum and Appendix D Offsetting Plan.

AEM Response to 3.8.2:

This will be clarified with DFO during the regulatory phase of the project. In the EIS Addendum, Appendix D - Offsetting Plan, section 2.1.5 ("Access Factor" pg. 8), AEM states that "In the 2012 NNLP, burbot, ninespine stickleback, and slimy sculpin were erroneously excluded from habitat calculations in Phaser Lake. They were

added into calculations here. The minor impact on HU calculations is described in Section 5." AEM will clarify that in the 2012 NNLP, the access factor for burbot, slimy sculpin, and ninespine stickleback was erroneously set at 0 for loss calculations in Phaser Lake. Since one burbot was recovered in a 2012 gillnetting study, and small-bodied fish are assumed to be present, an access factor of 1 for these species was used for both loss and gain calculations in this updated offsetting plan (as shown on pg. 9). As a result of this change, as well as correction to a small area (0.23 ha) that was previously double-counted in loss calculations (as described on pg. 9), losses for Phaser Lake calculated in the 2012 NNLP were slightly lower (5.35 HUs) than losses calculated in this updated offsetting plan (5.89 HUs). This is described on pg. 10 – "Impacted aquatic habitat for Phaser Lake without compensation measures totals 25.05 hectares, or 5.89 HUs. This represents an increase of 0.54 HUs from the 2012 NNLP due to the adjustments discussed above."

2.9 DFO-TRC #3.9: Mapping Calculations

Reference(s): Section 3.0 p.9, Section 4.1 p.14 and Section 4.4 p.20 Agnico Eagle Mines Ltd. July 2015. Appendix D No Net Loss Plan Addendum – Vault Area Offsetting Plan.

Summary: "It should also be noted that. . . resolution differences between substrate maps and base maps for Phaser Lake were found to produce an unmapped zone of 2.23 ha over several pockets of the lake, for which HUs could not be calculated (losses or gains)." P.9

"Both lakes will be expanded as a result of land-to-lake conversion in the Vault and Phaser Pits"p.14
This unmapped area around the northern perimeter of the lake was not translated into habitat units; however, AEM estimated "based on adjacent habitat types, all unmapped areas fall within the HT 3 zone."p.20 unmapped area around the northern perimeter of the lake was not translated into habitat units; however, AEM estimated "based on adjacent habitat types, all unmapped areas fall within the HT 3 zone."p.20

Importance of Issue to Impact Assessment: Clear understanding of AEM's loss and gains calculations pertaining to fish and fish habitat.

Detailed Review Comment: Understanding AEM could not calculate loss associated with a 2.23 ha area, it is not clear whether AEM included this area when calculating habitat gains as a result of land to lake conversion due to the inferences of surrounding habitat types to conclude these areas are likely HT 3.

Recommendation/Request: 3.91. DFO requests AEM clarify whether the unmapped area, assumed to be HT3, was included in calculations of gains as a result of land to lake conversion.

AEM's Response:

AEM will clarify this during the regulatory phase of the project. The unmapped areas (Table 4-4) refers only to aquatic habitat. The land-to-lake area associated with Phaser Pit is the portion that overlays land (Table 4-1). Therefore, the unmapped area was not included in the calculation of land-to-lake area. AEM will clarify this matter in subsequent updates to the EIS Addendum, Appendix D, Offsetting Plan.