AGNICO EAGLE

The format of this document is based on the original FEIS guidelines originally submitted in March 2015

ENVIRONMENTAL IMPACT STATEMENT (EIS) ADDENDUM FOR THE MEADOWBANK PROJECT: VAULT EXPANSION TO INCLUDE PHASER PIT AND BB PHASER PIT

Submitted to:

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GLOSSARY

This glossary defines the most important technical terms used in the Guidelines. It is designed to assist non-technical readers, and the definitions of terms are, therefore, of a "popular" nature.

Albedo	The amount of light reflected by a surface such as snow.
Aquifer	An underground layer of rock or soil that contains important amounts of water.
Archaeology	The scientific study of the material remains of the cultures of historical or pre-historical peoples.
Avifauna	Birds.
Bioaccumulation	The uptake and retention of contaminants by an organism from its environment.
Biochemical oxygen Demand	A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the biochemical oxygen demand, the greater the degree of pollution.
Biodiversity	A measure of the variety of plants and animals in a particular habitat or ecosystem.
Borrow pit	A pit from which material is taken for building roads and for similar activities.
Cumulative effects	The impacts of a development taken in combination with the impacts of other past, current, or reasonably foreseeable future developments.
Delta	A deposit of sediment, usually triangular in shape, at the mouth of a river, stream or tidal inlet.
Demography	The statistical study of populations, with particular reference to births, deaths, migratory movements, age and sex.

Ecosystem	The organisms of a natural community together with their environment.
Esker	A winding ridge made of sand and gravel deposited by a melting glacier.
Faulting	Cracks or breaks within a body of rock, causing one part of the body of rock to slip or slide relative to the other.
Fines	Very small particles of rock, mineral or sediment.
Model	A mathematical or statistical model describing atmospheric movements over the Earth. Among other things, such models are used to predict how the climate of the Earth may evolve over the years to come as a result of, for example, changes in atmospheric pollution.
Geochemistry	The study of the chemical composition of the earth and the physical and chemical processes responsible for it.
Geology	The study of Earth in terms of its development as a planet. Commonly thought of as the study of rocks.
Geomorphology	The scientific discipline that studies the surface features of the Earth, including land forms.
Geotechnical	Relating to the application of engineering to geology.
Gradient	The angle of a slope, or its steepness.
"Greenhouse" Gas	A gas released into the atmosphere, often by human activities such as burning fossil fuels, that increases the capacity of the lower atmosphere to trap heat from the sun, thereby contributing to global warming.
Hydrocarbons	Any substance containing carbon and hydrogen in various combinations (e.g., gasoline and oil).

Hydrology	The science that deals with the occurrence, circulation, distribution, and properties of the waters of the Earth, including their reactions with the environment.
Leaching	The process by which a liquid (e.g., water) passes through a substance, picking up some of the material and carrying it to other places. Can occur underground in soil and rock, or above ground through piles of material.
Limnology	The study of life in lakes, ponds, and streams.
Lithology	The description of the physical characteristics of a rock, often based on its colour, structure, mineral components, and grain size.
Nitrate	A compound containing nitrogen that can exist in the atmosphere or as a dissolved gas in water, and that can have harmful effects on humans and animals.
Nitrite	A chemical compound produced when ammonia in wastewater is oxidized by bacterial or chemical reactions and ultimately becomes nitrate.
Nitrogen dioxide	The result of nitrate oxide combining with oxygen in the atmosphere. Nitrate oxide is a gas formed by combustion under high temperature and pressure, for example in a vehicle engine. Nitrogen dioxide is a major component of photochemical smog.
Nunavummiut	The indigenous inhabitants of Nunavut.
Ore	A rock or mineral that contains a valuable constituent, such as diamonds or a metal, for which it is mined and processed.
Overburden	Material that must be removed to allow access to an ore body, particularly in a surface mining operation.
Palaeobotany	The study of ancient and fossil plants and vegetation.
Palaeontology	The study of life in the past as recorded by fossil remains.

Periphyton	Very small plants that live attached to a surface in freshwater but do not move around.
Permafrost	Permanently frozen ground.
Phenology	The study of periodic phenomena in plants, such as the time of flowering in relation to climate.
Phytoplankton	Very small plants that float or drift in lakes.
Plume	A visible or measurable discharge of a contaminant from a given point of origin. Plumes may occur in water or air.
Pore	A very small hole, such as may occur in some types of rock.
Post-closure	The period of time, considered to be up to 30 years, following the shut-down of a mine or other facility, during which monitoring of its effects should be continued.
Post-project audit	An evaluation after a development of all of its environmental and social impacts and of the mitigation measures applied to it.
Proponent	The individual or organization that wishes to carry out a development project.
Raptor	A bird that hunts by snatching its prey.
Riparian	The land-water interface. Also refers to organisms living or located on the bank of a stream, river or lake.
Rock glacier	Boulders and fine material cemented by ice about a meter below the surface.
Rock heave	The movement of rocks as a result of freezing and thawing.
Rotary-wing aircraft	A helicopter.
Sacred site	A place on the land created or used by Inuit spiritual leaders in the past for religious ceremonies, such as: a platform or formation leading to an “altar”; a hill, mountain,

	stone, boulder, river, lake, or Inukshuk designated as a sacred site; an offering place where people might plead for good fortune and well- being, often found along the coast, but also inland; a place where an unusual event might have happened, or an event that led to a death or a story of survival; a place known to Elders in legend where a significant story occurred. (See Ittarnisalirijiit Conference on Sacred Sites and Spiritual Places, Rankin Inlet, 1996).
Seismicity	The phenomenon of earth movements, in extreme cases in the form of earthquakes, and their geographic distribution.
Sulfur dioxide	A gas formed when sulfur burns in the presence of oxygen, as for example in the burning of gasoline or diesel fuel in a vehicle engine. It is a major air pollutant that is corrosive and harmful to plants and animals, especially trees.
Tailings pond	An engineered structure for storing those portions of washed, processed or milled ore that are regarded as too poor to be treated/processed further.
Talik	Permanently unfrozen ground in regions of permafrost. Usually applies to a layer that lies above the permafrost but below the active layer.
Thermal inversion	A phenomenon in which a layer of cold air above a layer of warm air close to the ground prohibits the dispersion of atmospheric pollution, such as vehicle exhausts.
Thermal stability	The degree to which something, such as permafrost, has the capacity to remain at the same temperature over time.
Toponym	A place name.
Toxin	A poisonous substance.
Vascular plant	A plant with a particular type of tissue for carrying water and mineral salts and for assisting the plant to stand upright.

Zooplankton	Very small animals that float or drift in lakes.

NOTES

The terms “impact” and “effect” are used interchangeably in the present text.

DOCUMENT CONTROL

Version	Date	Section	Page	Revision
i	July, 2014	All	All	A description of the Phaser Pit operations and abbreviated impact assessment and request for a reconsideration of the Project Certificate
1	July 3, 2015	All	All	FEIS Addendum. Agnico Eagle reformatted the original application document to meet the FEIS guidelines following feedback from NIRB

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1.0 PURPOSE

1.1 NIRB Review Process and Addendum Background

As part of the environmental review and screening process, the Meadowbank Project is subject to the environmental review and related licensing and permitting processes established by Part 5 of the Nunavut Land Claims Agreement ("NLCA") (INAC and TFN, 1993). This document presents some of the background information of the original guidelines which were issued for the preparation by the Proponent of a draft Environmental Impact Statement ("EIS") for the Meadowbank Project in February 2004. An EIS is a documented evaluation of the project proposal, providing detailed information regarding the proposal's environmental and socio- economic impacts (NIRB, 1997a). An EIS shall serve as the means of assessing the environmental impact of project proposals, rather than justifying decisions already made (NIRB, 1997a. Appendix F).

On March 31, 2003, Cumberland Resources Ltd (the "Proponent" or "Cumberland" in the NIRB Project Certificate No. 4), the original owner of the Meadowbank Mine, submitted a Project Description Report for the Meadowbank Gold Project (the "Project" or "Meadowbank" in the NIRB Project Certificate No.4) to the Nunavut Impact Review Board ("NIRB" or the "Board"). Following receipt of the Proponent's application, on September 23, 2003 the Board sent a Screening Decision to then-Minister Robert Nault of the Department of Indian Affairs and Northern Development. A review under Part 5 or 6 of Article 12 of the Nunavut Land Claims Agreement ("NLCA") was proposed. In response, on December 3, 2003, Minister Nault referred the Project to the NIRB for a Part 5 Review.

On December 18, 2003 NIRB, circulated the Draft Environmental Assessment Guidelines for the Project to the Distribution List. On February 20, 2004, based on comments received by these interested parties, the Board issued the Final Environmental Assessment Guidelines (the "EIS Guidelines") to the proponent. The Proponent was advised to submit a Draft Environmental Impact Statement ("DEIS") based on the EIS Guidelines issued. The format for this FEIS Addendum meets the requirements set out in the original EIS guidelines by either

referring the reviewer to the original FEIS or by adding text in specific sections to address updates related to the requested review of the Vault Pit Expansion into Phaser Lake (Phaser Pit and BB Phaser Pit).

Cumberland filed the DEIS on January 4, 2005. A Conformity Review of the DEIS was undertaken by NIRB. On March 8, 2005 the Proponent advised that their feasibility study resulted in adjustments to the Project design. This included an increase in mine throughput tonnage, changes to the water tailings discharge, and a recommendation for a 102 kilometre long all-weather access road from the Hamlet of Baker Lake to the mine site. On March 21, 2005, NIRB advised the Proponent that the DEIS generally conformed to the EIS Guidelines, meaning that the DEIS captured many, but not all, of the requirements set out in the EIS Guidelines. Detailed information regarding the deficiencies to be addressed prior to the technical review for the preparation of the FEIS was provided to the Proponent.

Cumberland submitted the FEIS to NIRB on November 8, 2005. NIRB's internal conformity review focused on the new content in the FEIS ensuring it responded to the direction provided by the Board in the PHC decision. On December 15, 2005, Cumberland submitted a supplemental FEIS submission to address the deficiencies identified in NIRB's conformity review. In that submission Cumberland advised NIRB that on December 14, 2005, Cumberland corresponded with INAC, KivIA, GN, and the Hamlet of Baker Lake inquiring specifically about these organizations' interests in the regulation of the all-weather road and in the future of the all-weather road after the Project is completed.

The Final Hearing was held March 27 to 29 in Baker Lake, March 30 in Chesterfield Inlet and March 31 in Rankin Inlet. On December 30, 2006, the NIRB approved the Meadowbank Project and this was followed by the Minister issuing the Nunavut Impact Review Board - Project Certificate No.4.

In 2007, Agnico Eagle purchased the Meadowbank Project from Cumberland and began constructing the all - weather access road (AWAR) from Baker Lake to the Meadowbank mine. In 2008 mine site construction began and since 2009, the Meadowbank Gold Project has been operated by Agnico Eagle Mines Limited - Meadowbank Division (Agnico Eagle). It is located 75 km north of the Hamlet of Baker Lake, Nunavut and the

project components include marshalling facilities in Baker Lake, the 110 km AWAR between Baker Lake and Meadowbank, the Vault mine site and the Meadowbank mine site. The Meadowbank mine consists of several gold-bearing deposits that will be mined until 2018. Mining at Meadowbank is occurring in three open pits (Goose Pit, Portage Pit and Vault Pit) (Figure 4.10.1). Much of the pit development is located in close proximity to the mill, office and lodging infrastructure, with the exception of the Vault Pit which is approximately 8 km northeast of the main mine site. As previously mentioned, this FEIS addendum evaluates impacts associated with the addition of a small pit that is an extension of the Vault Pit (called Phaser Pit and BB Phaser Pit).

These various components and activities associated with the project are subject to several authorizations, regulations, leases and permits from regulatory agencies. AEM applied for and receive these authorizations prior to construction and operation (see Appendix B that summarizes the leases, regulations and permits). This includes the Nunavut Water Board (NWB Type A Water License 2AM- MEA0815), Environment Canada (EC) Metal Mining Effluent Regulations (MMER) and Schedule II listing of Second Portage Lake Northwest Arm; the Department of Fisheries and Oceans Canada (DFO); Aboriginal Affairs and Northern Development Canada (AANDC); and the Kivalliq Inuit Association (KIA)

All of the permits were approved based on the original (2005) environmental management plans and subsequent revisions (required by the NWB) and the associated life of mine (LOM) plans which did not consider the expansion of Vault Pit into Phaser Lake (Phaser Pit and BB Phaser Pit), but did consider impacts to Phaser Lake due to proposed operations at the time. Original water management plans and impact assessments predicted potential impacts to the Turn Lake Watershed, as freshet inflows were planned to be managed by pumping water from Phaser Lake into Turn Lake. With the current mine planning, these impacts to the adjacent watershed have been avoided and will continue to be with the proposed Phaser Pit and BB Phaser Pit operations.

Consideration for expansion of the mine is a continuous process. Initial feasibility studies did not consider Phaser Pits, however this was dependant on scale, timing, the potential environment impacts and the economics

at the time. As the economics of the project have changed and the details of last few years of the Meadowbank mine are optimized, mine engineers began considering the feasibility of expanding Vault Pit to include Phaser Pit and BB Phaser Pit.

The Vault Pit expansion into Phaser Lake consists of Phaser Pit and BB Phaser Pit which are small open pits that extend from the perimeter of the Vault Pit to the southwest into Phaser Lake. Until recently, for economic reasons, it has not been part of the life of mine (LOM) at Meadowbank. AEM discussed the Vault Pit expansion with the Baker Lake HTO, KIA and DFO beginning in 2012 (as part of a revision to DFO mine site authorizations) and to NIRB representatives during a conference call hosted on March 11, 2014.

In July 2014, Agnico Eagle submitted a document that presented an overview of the Vault Pit Expansion (Phaser Pit) to the NIRB. In this submission, Agnico Eagle believes the proposed expansion into Phaser Lake is not a significant change to the project, is within the scope of the original project permitted by NIRB Project Certificate No.4, and is within the KIA Production Lease (KVPL08D280). It should be noted that this expansion amounts to approximately 30 days of additional mining activity. In a letter dated January 23, 2015, NIRB notified Agnico Eagle that “the proposed amendments must be a stand-alone document capable of supporting the public review, comment and assessment process”. On February 13, 2015 Agnico Eagle submitted correspondence to the NIRB requesting additional clarification on the sections of the Guidelines that the NIRB considered applicable to the amendment. As a result of the correspondence, Agnico Eagle has used the original FEIS guideline document to further guide the impact assessment of Phaser Pit and BB Phaser and has prepared a standalone Addendum to the FEIS as instructed by NIRB.

1.2 Objective

The objective of this Addendum is to fulfill the aforementioned request of NIRB. It is intended as a standalone document to guide the review process and reintroduces NIRB to the original FEIS project description, impact assessment, monitoring and mitigation plans and provides a specific impact assessment related to the proposed Vault expansion to include Phaser Pit and BB Phaser Pit.

In the format of the original FEIS guidelines, this addendum presents the original project description, a description of the Vault Expansion, identifies areas in the original FEIS that are unchanged due to the 1 month extension of Meadowbank mine activities, assesses impacts, monitoring and mitigation plans, presents areas that are insignificantly changed through this proposed addition of Phaser Pit and BB Phaser Pit. Some of the information provided in this document is taken from the original FEIS or from the July 14, 2014 submission and other sections are new in response to NIRBs comments in February.

As per the original July, 2014 submission, AEM maintains its request that NIRB reconsider the Terms and Conditions of the Project Certificate related to Vault Pit Expansion (Phaser Pit and BB Phaser Pit) under Section 12.8.2 of the NLCA. Agnico Eagle understands that the NIRB will submit the FEIS Addendum to the NIRB Panel, Inuit organizations, community stakeholders, regulatory bodies, technical advisors, and other interested parties, who will be asked to evaluate whether this is a significant change. Given the lengthy process to date, Agnico Eagle urges the NIRB to expedite this review process and will meet with NIRB to discuss any administrative deficiencies of this FEIS Addendum, or if the NIRB reveals any significant shortcomings early in its review, please contact Agnico Eagle. This would ensure a timely response by Agnico Eagle as we will work with NIRB to ensure they have the information required to complete their review expeditiously.

2.0 PROJECT DEFINITION

Pursuant to the various authorizations the Meadowbank Mine has been approved for the construction, operation, maintenance, reclamation and abandonment of a gold mine in the Kivalliq Region of Nunavut. As described in the original EIS Guidelines (the original text *below has been left in italics*), the proposed mining of Phaser Pit and BB Phaser Pit is within the current scope of the FEIS for the Meadowbank Mine which is *approved as an open pit gold mine, including a mill, camp, waste management facilities, fuel tank farm, and other key items summarized as follows:*

- *This Project is located on Inuit-Owned Land approximately 70 km north of Baker Lake. The total gold resource is estimated to be 3.08 million ounces. This resource will be extracted during the roughly 9-10 year operational lifespan of the mine.*
- *The Project is designed as a "fly in/fly out" operation with an airstrip providing year round access to the site. All construction and operating supplies for the project will be transported on ocean freight systems to facilities constructed at the Hamlet of Baker Lake, which will include barge unloading facilities, laydown area, and tank area.*
- *Onsite facilities will include a mill, power plant, maintenance facilities, tank farm, fuel storage, water treatment plant, sewage treatment plant, airstrip, and accommodation for 250 people.*
- *Mine construction and pre-stripping is scheduled to begin in March 2005 and mine/processing in December 2006. Production will be split between open pit mining (87 %) and underground mining (13 %).*
- *Open pit mining will occur in three separate areas and water retention dykes will be constructed from mined rock at two of these pits to allow for the mining of ore beneath shallow lakes. A low permeability vertical slurry wall will be constructed in the centre of the dykes to minimize seepage from surrounding lakes into the work area. Construction of the dykes will use floating silt curtains to minimize the release of suspended solids into surrounding lake waters.*

- *Mined rock will be placed in tailings impoundments and waste rock storage piles. A classification system will be used to identify both potentially acid generating (PAG) and metal leaching rock, and PAG mine rock will be stored designated storage areas designed for long term stability. Acidic run-off will be appropriately handled.*
- *Ore will be processed according to one of two options involving cyanide leaching, cyanide destruction, and refining dore bars. Details will be provided on the destruction of cyanide to rationalize the chosen option. The combined leach residue slurry will be treated with an air/SOB2 B process to detoxify the free cyanide in the tailings stream.*
- *The treated tailings will either be disposed under a minimum cover water in the Second Portage Lake impoundment area or be used for underground hydraulic backfill.*
- *The freshwater supply for the mine and camp will be pumped from the Third Portage Lake. Mine process water will be primarily reclaimed from the tailings pond, and treated sewage will be discharged to the tailings pond.*
- *The Proponent has conducted environmental baseline studies in the project area, the results of which have been integrated into the current project design.*
- *Valued Ecosystem Components (VECs) have been identified in consultation with regulatory authorities and members of the local community. They include fish and wildlife species populations, habitat, air quality, water quality, surface water quantity and distribution, vegetation cover, and permafrost.*
- *With the use of scientific and traditional knowledge gathered to date, the Proponent has identified archeological sites, traditional use areas, employment/training opportunities, and traditional/ current lifestyle as valued social and economic components (VSECs).*
- *The Proponent plans to implement a project environmental management system consisting of three key elements: an integrated environmental management plan, a formal environmental awareness program, and an ongoing environmental monitoring program.*

- *Upon conclusion of activities, the Proponent plans to fully decommission the mine by sealing the underground mine facilities, removing the mill and ancillary buildings, recontouring disturbed areas, and reclaiming the vegetation.*

With the expansion of Vault Pit into Phaser lake (Phaser Pit and BB Phaser Pit), AEM believes the project description in the original FEIS has not significantly changed. The infrastructure requirements for the inclusion of BB Phaser and Phaser Pit is within the 9 -10 years of operations approved by the NIRB within the Project Certificate (i.e. milling, waster rock storage, water management and mining activities in Vault), are within the KIA Production Lease (KVPL08D280) area of the Vault Deposit and is therefore with the addition of 1 month of mining is within the scope of the original project permitted by NIRB Project Certificate No.4. The following FEIS addendum presents an overview of the Phaser Pit and BB Phaser to the NIRB. Through this FEIS addendum, which is a revised format of presenting information provided to the NIRB on July 2014, AEM is repeating its request for NIRB to reconsider the Terms and Conditions of the Project Certificate related to Vault Pit Expansion under Section 12.8.2 of the NLCA.

3.0 EIS OVERVIEW

3.1 Presentation of the FEIS Addendum

The original guidelines for the Meadowbank Project required that the proponent provide an EIS that is complete, including scientific works and the Proponent's sectoral studies, and all other sources of information, including Traditional Knowledge. This FEIS Addendum, wherever necessary provides a full understanding of the Phaser Pit and BB Phaser Pit development, provides a main descriptive document with a series of complementary documents appended. The appendices provide to provide technical and scientific support and containing appropriate bibliographic references.

Agnico Eagle has included some of the text from the original NIRB guidelines to assist the NIRB and the stakeholders in their review of this Addendum. Agnico Eagle has included in the EIS Addendum all of the above mentioned information and will make the EIS Addendum available both electronically, and in hard copy.

3.2 Conformity

Agnico Eagle has observed the intent of the original EIS guidelines in this addendum and has completed a conformity review and a concordance table which is presented in Appendix A. Specific issues not applicable to the addendum or directions described in the original Guidelines are easily identifiable in the FEIS Addendum.

3.3 Length

The Guidelines for Environmental Impact Statements (NIRB, 1997b, Appendix F) do not permit the Proponent's EIS to exceed 150 pages without the permission of the NIRB.

The FEIS addendum will be less than 150 pages not including the supporting documents and appendices.

3.4 Format of the Addendum to the FEIS

As per the original EIS, which required that the document shall be double-spaced, and its sections numbered, AEM has prepared this Addendum to the FEIS to meet the original requirements. Subject to any other

instructions given by NIRB, the following format was adopted, based on NIRB (1997a) and adapted as much as possible to the specific circumstances of the Meadowbank Project:

- *Title page;*
- *Executive summary;*
- *Popular summary;*
- *Table of contents, including list of tables, list of figures, list of maps, list of acronyms;*
- *Concordance table;*
- *The proponent;*
- *Sustainable development and precautionary principle;*
- *Baseline data collection;*
- *Traditional knowledge;*
- *Public consultation;*
- *Regional context;*
- *Regulatory regime;*
- *Land tenure;*
- *Project justification;*
- *Project description;*
- *Alternatives including "no-go";*
- *Description of physical environment;*
- *Description of biological environment;*
- *Description of socio-economic environment;*
- *Spatial boundaries;*
- *Temporal boundaries;*
- *Data acquisition methodology and documentation, covering biophysical and socio-economic aspects;*

- *Data analysis and reporting;*
- *Impact assessment methodology, including determination of impact significance, covering biophysical and socio-economic aspects;*
- *Indicators and criteria;*
- *Impact assessment, distinguishing biophysical and socio-economic aspects;*
- *Cumulative effects assessment;*
- *Summary of impacts;*
- *Environmental management and mitigation;*
- *Residual effects;*
- *Monitoring or post-project analysis, and follow-up;*
- *Auditing and continual improvement;*
- *Closure and reclamation;*
- *Value-adding opportunities;*
- *Outstanding issues;*
- *List of consultants;*
- *List of organizations and individuals to whom copies of the Project proposal were sent;*
- *Glossary;*
- *Literature cited;*
- *Appendices.*

3.5 Data Presentation

In the FEIS Addendum, AEM has provided charts, diagrams, aerial and other photographs and maps wherever useful to clarify the text. Where feasible, maps are of a common scale and projection to facilitate comparisons.

3.6 Summaries

3.6.1 Executive Summary

Agnico Eagle Mines Meadowbank Division is proposing to expand the Vault open pit to include two small extensions known as the Phaser Pit and the BB Phaser Pit. In July 2014, Agnico Eagle submitted a document that presented an overview of the Vault Pit Expansion (Phaser Pit) to the NIRB. In a letter dated January 23, 2015, NIRB notified Agnico Eagle that "the proposed amendments must be a stand-alone document capable of supporting the public review, comment and assessment process". In response Agnico Eagle has completed this document as an FEIS Addendum to the original 2005 approved FEIS which assesses the impacts, monitoring and mitigation of the proposed Vault expansion to include Phaser Pit and BB Phaser Pit. The Phaser Pits are two small open pits that extend to the southwest from the perimeter of the Vault Pit and into Phaser Lake. It should be noted that this expansion amounts to approximately 30 days of additional mining activity and uses the existing Meadowbank mill for ore processing; Vault Waste Rock Facility for waste rock storage; tailings storage facility, infrastructure and Vault haul road, which were assessed in the original FEIS. AEM believes that Phaser Pit and BB Phaser Pit is an insignificant change to the project, the area was included in the terrestrial impact assessment, and is within the scope of the original project permitted by NIRB Project Certificate No.4, which assessed a 9 -10 year operating mine (i.e. 2009 – 2018). Furthermore, it is within the KIA Production Lease (KVPL08D280) and will be a continuation of the current mine, which Agnico Eagle believes has a net positive socio-economic impact for the community of Baker Lake and the Kivalliq region.

Agnico Eagle has applied to the DFO for an authorization for this pit expansion by the submission of a No Net Loss Plan (NNL Plan (AEM, 2012)) and with this submission to the NIRB, Agnico Eagle has included an addendum to AEM (2012) to include BB Phaser Pit. These fisheries offsetting plans have accounted for fisheries losses to Phaser Lake beginning in 2016 and will extend to the end of the Meadowbank mine. These fisheries loss offset plans will ultimately result in improvements to the connectivity between the re-flooded Vault Lake to the re-flooded Phaser Lakes and to Wally Lake (both Vault and Phaser pits will be re-flooded once

mining has been completed). The offset plan also includes commitments to complete defined fisheries research projects which will significantly contribute to regional fisheries knowledge. Furthermore, based on current mine plans, Phaser Lake no longer requires water diversion into Turn Lake, which was originally predicted (in the 2005 FEIS) to be a potential impact from the mining of the original Vault Pit. The dewatering activity proposed in this document will follow current dewatering plans approved by the NIRB and NWB. Therefore Agnico Eagle is requesting NIRB to reconsider the Terms and Conditions of the Project Certificate related to Vault Pit Expansion into Phaser Lake under Section 12.8.2 of the NLCA.

3.6.2 Popular Summary

Agnico Eagle Mines Meadowbank Division is proposing to expand the Vault open pit, that is currently being mined, to include two small extensions known as the Phaser Pit and the BB Phaser Pit. The Phaser Pits are two small open pits that extend to the southwest from the perimeter of the Vault Pit and into Phaser Lake. This expansion is around 30 days of mining activity and uses the existing Meadowbank Mill, Vault Waste Rock Facility, tailings storage facility, infrastructure and Vault haul road, which were assessed in the original FEIS. AEM believes that Phaser Pit and BB Phaser Pit is an insignificant change to the project and is within the scope of the original project permitted by NIRB Project Certificate No.4, which assessed a 9 -10 year operating mine (i.e. 2009 – 2018). Agnico Eagle believes this extension has a net positive socio-economic impact for the community of Baker Lake and the Kivalliq region.

Agnico Eagle has applied to the DFO for an authorization for this pit expansion into Phaser Lake. The fisheries offsetting plans have accounted for fisheries losses to a small isolated lake called Phaser Lake. 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. These fisheries losses have been offset in plans submitted to DFO that include research funding. The dewatering activity proposed will follow current dewatering plans approved by the NIRB and NWB. Therefore Agnico Eagle is requesting NIRB to re-evaluate conditions in the Project Certificate related to Phaser Lake under Section 12.8.2 of the NLCA.

3.7 Translation

ᐊᒡᓃᑯᒃᑯᑦ ᐊᐳᖅᑎᓐᓈᖅᑐᒥᑦ ᐊᖕᒋᓕᒋᐊᖅᓯᔪᒪᔪᑦ Vault-ᒥᑦ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖕᒐᒥᑦ ᐃᓚᐅᑎᓪᓗᒋᑦ ᒪᕐᕉᖕᓂᒃ ᒥᑭᔫᔪᓂᒃ ᐃᓚᓯᓗᑎᒃ ᖃᐅᔨᒪᔭᐅᔪᑦ Phaser ᐊᒪᓗ BB Phaser ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ. ᔪᓚᐃ 2014-ᒥᑦ, ᐊᒡᓃᑯᒃᑯᑦ ᑐᓂᓯᓚᐅᖅᑐᑦ ᑎᑎᖅᑲᒥᒃ ᑕᑯᒃᓴᐅᑎᑦᑎᔪᖅ ᑕᒪᐃᓅᓕᖕᒐᒥᒃ Vault ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᖅ ᐊᖕᒋᓕᒋᐊᕐᓂᖕᒐᓄᑦ (Phaser ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᖅ) ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕐᕈᔩᒃᑯᖕᒍᓄᑦ. ᑎᑎᖅᑲᒥᑦ ᐅᑉᓗᖅ ᔭᓄᐊᕆ 23, 2015-ᒥᑦ, ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕐᕈᔩᒃᑯᖕᒋᑦ ᖃᐅᔨᒃᑲᐃᓚᐅᖅᑐᑦ ᐊᒡᓕᑯᒃᑯᓐᓂᑦ “ᐋᕿᒋᐊᖅᓯᓂᐅᔪᒪᔪᑦ ᐃᖕᒥᒃ ᑰᖕᒑᔭᕆᖅᑲᖅᑐᖅ ᑎᑎᖅᑲᖅ ᐃᑲᔪᐃᔪᖕᓇᖅᓗᓂ ᐃᓄᖕᓄᑦ ᕿᒥᕐᕈᔭᐅᔪᖕᓇᕐᓂᕐᒧᑦ, ᓂᑉᓕᐅᓯᕆᔭᐅᔪᖕᓇᕐᓂᕐᒧᑦ ᐊᒪᓗ ᖃᐅᔨᓴᖅᑕᐅᕙᓪᓕᐊᓂᖅ ᐊᔪᖖᑭᓂᕐᒧᑦ”. ᑭᐅᔾᔪᑎᕆᑉᓗᒍ ᐊᒡᓃᑯᒃᑯᑦ ᐱᐊᓂᓚᐅᖅᑕᖕᒍᑦ ᑎᑎᖅᑲᖅ FEIS - ᑭᖕᒍᓪᓕᖅᐹᖅ ᐊᕙᑎᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᑎᑎᖅᑲᖅ-ᒧᑦ ᐃᓚᒋᔭᐅᑉᓗᒍ FEIS - ᑭᖕᒍᓪᓕᖅᐹᖅ ᐊᕙᑎᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᑎᑎᖅᑲᖅ-ᐅᖅᑲᐅᖅᑲᐅᑕᐅᔪᒧᑦ ᓈᒻᒪᒋᔭᐅᓚᐅᖅᑐᖅ 2005-ᒥᑦ ᖃᐅᔨᓴᐃᔪᖅ ᐊᒃᑐᖅᓯᓂᐅᔪᓂᒃ, ᖃᐅᔨᒋᐊᖃᑦᑕᕐᓂᐅᔪᓂᒃ ᐊᒪᓗ ᐊᖕᒋᓗᐊᖕᒥᐊᖅᑎᑦᑎᔪᓂᒃ ᐊᖕᒋᓕᒋᐊᖅᑕᐅᔪᒪᓂᖕᒐ Vault-ᒥᑦ ᐃᓚᓕᐅᑎᓗᒋᑦ Phaser ᐊᒪᓗ BB Phaser ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ. Phaser-ᒥᑦ ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ ᒪᕐᕉᔫᒃ ᒥᑭᑦᑐᑦ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖕᒐᑦ ᑎᑭᐅᑎᑉᓗᑎᒃ ᓂᕆᖅᐸᓯᐊᓂᑦ ᐱᖕᒍᖕᓇᖕᒐᓂᑦ ᑭᒡᓕᐅᔫᑉ Vault-ᒥᑦ ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᒥᑦ ᐊᒪᓗ ᑕᐃᑯᖕᒐ Phaser ᑕᓯᕐᒧᑦ. ᖃᐅᔨᒪᔭᐅᔭᕆᐊᖃᖅᑐᖅ ᐊᖕᒋᓕᒋᐊᕐᓂᐅᔪᖅ 30 ᐅᑉᓗᓪᓗᐊᓂᒃ ᐃᓚᓯᖕᒪᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒥᑦ ᐊᒪᓗ ᐊᑐᖅᑦ ᑕᖅᓱᓂ ᑕᐃᒪᐅᔪᒥᒃ ᐊᐳᖅᑎᓐᓈᖅᑐᒥᑦ ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᓄᑦ ᓯᖃᓪᓕᑎᕈᑎᒥᑦ. Vault-ᒥᑦ ᐊᒃᑕᑰᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ ᐃᓂᖕᒐ ᐊᒃᑕᑰᖅᑕᐅᔪᓂᒃ ᑐᖅᑯᖅᓯᓯᒪᕝᕙᒃ; ᕿᒪᒃᑎᑦᑎᓄᑦ ᑐᖅᑯᖅᓯᓯᒪᕝᕙᒃ, ᐃᒡᓗᖅᔪᐊᑦ ᐊᒪᓗ Vault-ᒥᑦ ᐅᓯᑲᑦᑕᖕᓂᕐᒧᑦ ᐊᑉᖁᑎ, ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᑦ FEIS - ᑭᖕᒍᓪᓕᖅᐹᖅ ᐊᕙᑎᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᑎᑎᖅᑲᖅ-ᖕᒍᖅᑲᐅᑕᐅᓚᐅᖅᑐᒥᑦ. ᐊᒡᓃᑯᒃᑯᑦ ᐅᒃᐱᕈᓯᒃᑐᑦ Phaser ᐊᒪᓗ BB Phaser ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ ᐅᔾᔩᕐᓇᖖᑭᑑᑉᓗᓂ ᐊᓯᐊᖕᒍᕐᓂᐅᖕᒪᑦ ᐱᓕᕆᐊᒧᑦ, ᐃᓂᐅᔪᖅ ᐃᓚᐅᑎᑕᐅᓚᐅᖅᑐᖅ ᓄᓇᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᖃᐅᔨᓴᐃᓂᕐᒥᑦ, ᐊᒪᓗ ᐃᓗᐊᓃᓱᓂ ᐱᓕᕆᐊᖅ-ᖖᒍᖅᑲᐅᑕᐅᓚᐅᖅᑐᒥᑦ ᐱᒋᐊᕈᖅᓇᖅᑎᑕᐅᓚᐅᖅᑐᖅ ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕈᔾᔩᒃᑯᖕᒍᓄᑦ ᐱᓕᕆᐊᖅ ᓈᓴᐅᑎᖕᒐ 4, ᖃᐅᔨᓂᖅᑲᓚᐅᖅᑐᖅ 9-ᓂᒃ 10-ᓄᑦ ᐅᑭᐅᓄᑦ ᐊᐅᓛᕐᓂᖅᑲᕐᓂᐊᕐᓂᖕᒐᓄᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᖅ (ᓰᕐᓗ 2009 – 2018). ᐊᒪᓗᒃ ᑲᓐᓂᖅ, ᐃᓗᐊᓃᓱᓂ ᑭᕙᓪᓕᕐᒥᑦ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᒃᑯᑦ ᐊᑐᖅᑐᐊᖅᑎᑕᖕᒍᓂᑦ (KVPL08D280) ᐊᒪᓗ ᑲᔪᓯᓂᐅᓂᐊᖅᓱᓂ ᒫᓐᓇᐅᔪᖅ ᐅᔭᕋᖕᓂᐊᕐᓂᐅᔪᒧᑦ, ᐊᒡᓃᑯᒃᑯᑦ ᐅᒃᐱᕈᓯᒃᑐᑦ ᐱᐅᔪᒥᒃ ᐃᓄᐃᑦ-ᐱᕈᖅᐸᓪᓕᐊᓂᖕᒋᒧᑦ ᐊᒃᑐᖅᓯᓂᖅᑲᓂᐊᕐᓂᖕᒐᓄᑦ ᖃᒪᓂᑦᑐᐊᕐᒥᑦ ᐊᒪᓗ ᑭᕙᓪᓕᕐᒥᑦ.

ᐊᒡᓂᒃᑯᑦ ᑐᒃᓯᕋᐅᓯᐅᓚᐅᖅᑐᑦ ᐃᖃᓗᓕᕆᔩᒃᑯᓐᓄᑦ ᐱᔪᓐᓇᖅᑎᑕᐅᓂᕐᒥᒃ ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᒥᒃ ᐊᖏ ᓕᕆᐊᖅᑎᑦ ᑎᓂᕐᒧᑦ ᑐᓂᓯᑉᓗᑎᒃ ᐊᓯᐅᔨᓂᖅᑲᕐᓂᐊᙱᑐᒥᒃ ᐸᕐᓇᐅᑎᒥᒃ (NNL ᐸᕐᓇᐅᑎ (ᐊᒡᓃᒃᑯᑦ, 2012)) ᐊᒻᒪ ᑐᓂᓯᓂᖓᑦ ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕐᕈᔩᒃᑯᓐᓄᑦ, ᐊᒡᓃᒃᑯᑦ ᐃᓚᐅᑎᑦ ᑎᓚᐅᖅᑐᑦ ᐊᒡᓃᒃᑯᑦ (2012)-ᒧᑦ ᐃᓚᓕᐅᑎᓐᓂᕐᒧᑦ BB Phaser ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᖅ. ᑕᒪᒃᑯᐊ ᐃᖃᓗᖕᓂᑦ ᐊᓯᐅᔨᑦ ᑕᐃᓕᓂᕐᒧᑦ ᐸᕐᓇᐅᑏᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᐃᖃᓗᖕᓂᑦ ᐊᓯᐊᔨᓂᕐᒧᑦ Phaser ᑕᓯᕐᒧᑦ ᐱᒋᐊᕐᓗᓂ 2016 ᐊᒻᒪ ᑎᑭᓪᓗᓂ ᐃᓱᓕᓐᓂᖓᓄᑦ ᐊᐳᖅᑎᓐᓈᖅᑐᒥᑦ ᐅᔭᕋᖕᓂᐊᓕᕆᓂᖅᒧᑦ. ᑕᒪᒃᑯᐊ ᐃᖃᓗᖕᓂᑦ ᐊᓯᐅᔨᑦ ᑕᐃᓕᓂᕐᒧᑦ ᐸᕐᓇᐅᑏᑦ ᖃᓄᐃᖓᓕᖅᑎᑦ ᑎᓂᖅᑲᕐᓂᐊᖅᑐᑦ ᐱᐅᓯᕚᓪᓕᖅᑎᑦ ᑎᓂᐅᔪᓂᒃ ᐊᒃᑐᐊᓂᖏᓄᑦ ᐃᒥᖅᑐᖅᑕᐅᑲᓐᓂᕐᓂᖓ Vault ᑕᓯᖅ ᑕᐃᑯᖓ ᐃᒥᖅᑐᖅᑕᐅᑲᓐᓂᕐᓂᖓk Phaser ᑕᓯᖅ ᐊᒻᒪ ᑕᐃᑯᖓ Wally ᑕᓯᕐᒧᑦ (ᑕᒪᕐᒥᒃ Vault ᐊᒻᒪ Phaser-ᒥᑦ ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ ᐃᒥᖅᑐᖅᑕᐅᑲᓐᓂᕐᓂᐊᖅᑐᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᖅ ᐱᐊᓂᒃᐸᑦ). ᐊᓯᐅᔨᑦ ᑕᐃᓕᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᒥᑦ ᐃᓚᐅᔪᑦ ᐱᓂᐊᕐᓂᐅᔪᑦ ᐱᐊᓂᒡᓗᑎᑦ ᑐᑭᓕᐅᖅᓯᒪᔪᑦ ᐃᖃᓗᖕᓂᑦ ᖃᐅᔨᓴᐃᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᐃᑲᔪᐃᓂᖅᑲᕐᔪᐊᕐᓂᐊᖅᑐᑦ ᓄᓇᕗᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᖏᓄᑦ ᖃᐅᔨᒪᓂᖅᑲᓕᕐᓗᑎᒃ ᐃᖃᓗᖕᓂᒃ. ᐊᒻᒪ, ᐊᑐᖅᓱᕆᑦ ᒫᓇᐅᔪᖅ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐸᕐᓇᐅᑏᑦ, Phaser ᑕᓯᖅ ᐃᒪᕐᒥᒃ ᓴᖑᑎᑦ ᑎᔾᔪᑎᒥᒃ ᐱᖅᑲᓇᐊᖅᑲᕈᖕᓃᖅᑐᖅ Turn ᑕᓯᕐᒧᑦ, ᑖᓪ ᓇ ᓇᓚᐅᑖᖅᑕᐅᖅᑲᐅᑕᐅᓚᐅᖅᑐᖅ (2005-ᒥᑦ FEIS - ᑭᖑᓪᓕᖅᐹᖅ ᐊᕙᑎᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᑎᑎᖅᑲᖅ) ᐊᒃᑐᖅᑕᐅᓂᖅᑲᑐᐃᓐ ᓇᓇᐊᖅᑲᕐ ᓂᖏᓄᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᑕᐃᑲᓂ Vault ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᒥᑦ. ᐃᒪᐃᔭᐃᓕᕆᓂᐅᔪᒪᔪᑦ ᑕᒡᕙᓂ ᑎᑎᖅᑲᒥᑦ ᒪᓕᓐᓂᐊᖅᑐᖅ ᒫᓇᐅᔪᖅ ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ ᓈᒻᒪᒋᔭᐅᓚᐅᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕐᕈᔩᖏᓄᑦ ᐊᒻᒪ ᓄᓇᕗᒻᒥᑦ ᐆᒪᔪᓕᕆᔩᑦ ᔪᐊᑯᓐᓄᑦ. ᑕᐃᒪᓐᓇᒧᑦ ᐊᒡᓃᒃᑯᑦ ᑐᒃᓯᕋᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᕿᒥᕐᕈᔩᒃᑯᓐᓄᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᖅᑯᔨᑉᓗᑎᒃ ᑐᑭᐅᔪᓂᒃ ᐊᒻᒪ ᖃᓄᐃᖑᔭᓇᐊᖅᑲᕐᓂᐅᔪᓂᒃ ᐱᓕᕆᐊᒧᑦ ᓇᓗᓇᐃᑯᑕᖅ ᐱᔾᔪᑎᖅᑐᖅ Vault-ᒥᑦ ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᒥᒃ ᐊᖏ ᓕᕆᐊᕐᓂᕐᒧᑦ ᑕᐃᑯᖓ Phaser ᑕᓯᕐᒧᑦ ᒪᓕᒡᓗᒍ ᐃᓚᒋᔭᐅᔪᖅ 12.8.2 ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᖅᑲᑎᒌᒍᑎᒥᑦ.

4.0 SUBSTANTIVE DIRECTIVES

4.1 The Proponent

The Meadowbank Property is owned and managed by Agnico Eagle Mines Limited (NYSE:AEM, TSX:AEM) ("Agnico Eagle" or the "Company"), a Canadian publicly traded mining company listed on the Toronto and New York Stock Exchange, trading symbol AEM, with head offices in Toronto, Ontario.

Agnico Eagle is a senior Canadian gold mining company that has produced precious metals since 1957. The company currently operates nine mines located in Canada, Finland, and Mexico, with exploration and development activities in each of these regions as well as in the United States. Agnico Eagle began exploring for minerals in Canada in 1953 and has been active in the Kivalliq Region since 1990. Agnico Eagle owns and operates the Meadowbank mine, which is located 70 km directly north of Baker Lake and approximately 50 km southeast of the Amaruq Exploration site. In addition Agnico Eagle owns rights to the Meliadine Gold Project, which is located approximately 25 km north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet. The Meliadine Gold Project is now in the final permitting phases for development having received a final Project Certificate from the NIRB in February 2015 (NIRB 2015a).

Agnico Eagle is a senior mining company with a proven reputation for sustainability and economic success in Nunavut. Its' success is based on grass roots exploration and successful mining in politically stable countries. Agnico Eagle has maintained strong relationships with the NIRB, Nunavut Water Board (NWB), and regulators on their projects, most notably on the recent approval by NIRB for the Meliadine Project and with the NWB on the Meadowbank Mine Type A Water Licence Renewal. These relationships are built through monitoring, reporting and presentation of information to the regulators and stakeholders, and is backed by successful and accomplished operations. Agnico Eagle also sees the potential in the north, and intends to extend its resource extraction and production at Meadowbank as it continues to explore in the region.

Agncio Eagle's audited financial statements are available on line at:

http://ir.agnicoeagle.com/files/doc_financials/2014/Annual-Audited-Financial-Statement-2014.pdf

The people who work for and with Agnico Eagle in advancing the Phaser Pit and BB Phaser Pit development include:

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Overall Agnico Eagle has a sound reputation in environmental performance and sustainable development. As documented in this FEIS Addendum, the Meadowbank mine stands out has had a reputable record of sustainable development and environmental compliance. This was evident during the recent Type A water license renewal, which is in the final stages of approval by the NWB and is expected to be received by Q3 2015.

As presented in Table 4.1.1 to date, Agnico Eagle is in compliance with all items of the current Type A water license 2AM – MEA0815 with the exception of Part I, Item 23. This is related to not having an accredited lab on site. However during the renewal process interveners agreed that AEM could continue to use external third party labs and did not need to construct an accredited laboratory on-site. The renewed license will reflect this. Table 4.1.1 below presents the compliance assessment regarding each license term and conditions in NWB Type A Water License 2AM- MEA0815.

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
PART A SCOPE, DEFINITIONS AND ENFORCEMENT		
1	Compliant	
2	Compliant	
3	Compliant	
PART B GENERAL CONDITIONS		
1	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
2	Compliant	
3	Compliant	
4	Compliant	Payment in the amount of $7,000 paid each year by June 9.
5	Compliant	
6	Compliant	
7	Compliant	
8	Compliant	
9	Compliant	
10	Compliant	Annual report including all the reports and studies always submit in electronic and paper copy.
11	Compliant	
12	Compliant	
13	Compliant	
14	Compliant	
15	Compliant	
16	Compliant	
17	Compliant	
18	Compliant	
19	Compliant	
20	Compliant	
21	Compliant	
PART C CONDITIONS APPLYING TO SECURITY		
1	Compliant	Letter of Credit amended to $43,9 Million in January 9, 2014
2	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
3	Compliant	
4	Compliant	
PART D CONDITIONS APPLYING TO CONSTRUCTION		
1	Compliant	
2	Compliant	
3	Compliant	
4	Compliant	
5	Compliant	
6	Compliant	
7	Compliant	
8	Compliant	
9	Compliant	
10	Compliant	
11	Compliant	
12	Compliant	
13	Compliant	
14	Compliant	
15	Compliant	
16	Compliant	
17	Compliant	
18	Compliant	
19	Compliant	
20	Compliant	
21	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
22	Compliant	
23	Compliant	
24	Compliant	
25	Compliant	
26	Compliant	
27	Compliant	
28	Compliant	
29	Compliant	
30	Compliant	
31	Compliant	
32	Compliant	
33	Compliant	
34	Compliant	
35	Compliant	
36	Compliant	
PART E CONDITIONS APPLYING TO WATER USE AND MANAGEMENT		
1	Compliant	
2	Compliant	
3	Compliant	On July 23, AEM received the final approval from the Minister which permitted the withdrawal of 1,870,000 m^3 in 2013 and 1,150,000 m^3 per year after 2013. This was an increase from the original freshwater use limit of 700,000m^3 per year.
4	Compliant	
5	Compliant	
6	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
7	Compliant	
8	Compliant	
9	Compliant	
10	Compliant	
PART F CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT		
1	Compliant	
2	Compliant	
3	Compliant	
4	Compliant	
5	Compliant	
6	Compliant	
7	Compliant	
8	Compliant	
9	Compliant	
10	Compliant	
11	Compliant	Design of the landfill has changed
12	Compliant	
13	Compliant	
14	Compliant	
15	Compliant	
16	Compliant	
17	Compliant	
18	Compliant	
19	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
20	Compliant	
21	Compliant	
22	Compliant	
23	Compliant	
24	Compliant	
PART G CONDITIONS APPLYING TO MODIFICATIONS		
1	Compliant	
2	Compliant	
3	Compliant	
4	Compliant	
PART H CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING		
1	Compliant	
2	Compliant	
3	Compliant	
4	Compliant	
5	Compliant	
6	Compliant	
7	Compliant	
8	Compliant	
9	Compliant	
PART I CONDITIONS APPLYING TO GENERAL AND AQUATIC EFFECTS MONITORING		
1	Compliant	
2	Compliant	
3	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
4	Compliant	
5	Compliant	
6	Compliant	
7	Compliant	
8	Compliant	
9	Compliant	
10	Compliant	
11	Compliant	
12	Compliant	
13	Compliant	
14	Compliant	
15	Compliant	
16	Compliant	
17	Compliant	
18	Compliant	
19	Compliant	
20	Compliant	
21	Compliant	
22	Compliant	
23	Non- Compliant	AEM does not have an accredited laboratory on-site. However, all regulatory samples are sent to an accredited lab in accordance with Part I, Item 24.
24	Compliant	
25	Compliant	
26	Compliant	

Table 4.1.1: NWB Type A Compliance Assessment adapted from the Type A renewal application.

Item	Status	Note
27	Compliant	
PART J CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE		
1	Compliant	
2	Compliant	
3	Compliant	
4	Compliant	
5	Compliant	
6	Compliant	

Agnico Eagle has a reputation in Nunavut for thorough monitoring, reporting and presentation of information to the regulators and stakeholders. This is evident in 2013 when Agnico Eagle and an AANDC Water Resource Officer conducted a general site inspection and were accompanied by Agnico Eagle staff on July 29 to 30, 2013 and determined that the waste rock storage facility was seeping into pond NP-2. AEM immediately responded and installed a till plug, began pumping back water from sump ST-16 back to the tailings storage facility and began an internal investigation. AEM received the inspection report from AANDC Water Resource Officer on September 26, 2013 and sent a response on November 12, 2013 documenting the actions already taken. AEM has cooperated fully with the investigation to date. An update report provided to regulators regarding this incident has been provided in AEM's 2014 Annual Report and a comprehensive monitoring and mitigation plan continues. Results indicate that Lake NP-2 meets CCME criteria for the protection of Aquatic Life.

In 2013, AEM began the International Cyanide Management Code (Cyanide Code) certification process for the Meadowbank Mine. On May 21, 2015, the International Cyanide Management Institute (ICMI) announced that Agnico Eagle Mines Limited's Meadowbank Gold Mine and Meadowbank Supply Chain in Canada have been substantially certified with the International Cyanide Management Code (Cyanide Code). ICMI has received and

accepted the Detailed Audit Findings Reports prepared by independent professional third-party auditors who evaluated the Meadowbank Gold Mine. The Summary Audit Reports, Auditor Credentials Forms and Corrective Action Plans for the Meadowbank Mine and Supply Chain are available on Agnico Eagle's Signatory Company Pages of the ICMI web site:

http://cyanidecode.org/signatory-company/agnico-eagle-mines and http://cyanidecode.org/signatory-company-categories/agnico-eagle-mines-limited-canada, respectively.

The operations must be re-audited every three years to evaluate continuing compliance with the Cyanide Code. The Cyanide Code is a voluntary industry program for companies involved in the production of gold using cyanide and companies producing and transporting this cyanide. It was developed under the aegis of the United Nations Environment Programme by a multi-stakeholder Steering Committee. The Cyanide Code is intended to complement an operation's existing obligation to comply with the applicable laws and regulations of the political jurisdictions in which the operation is located. ICMI has been established to administer the Cyanide Code, promote its adoption, evaluate its implementation, and manage the certification process. A detailed list of the operations covered by signatory companies' applications, along with the full text of the Cyanide Code and its implementing and administrative documents, are available at www.cyanidecode.org.

4.2 Sustainable Development and Precautionary Principle

As stated in the original FEIS*, *Agnico Eagle achieves sustainable development by continuing to consider the economic, environmental and social impacts on the sustainability of both the Meadowbank Project, the hamlet of Baker Lake and the regional stakeholders. To promote the goal of sustainable development, support is needed for the local people to pursue sustainable livelihoods both in the traditional and wage economy**[1].

In order to achieve sustainable development, policies are guided by the *precautionary principle*. The Agnico Eagle compliance record and proven ability to quickly respond to onsite concerns demonstrates that

*1 *italic* text in this addendum has been taken directly from the original Cumberland Resources FEIS and is intended to assist the review process. Please refer to the original FEIS on the NIRB website for the complete text - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

environmental measures at Meadowbank anticipate, prevent, and mitigate the causes of environmental degradation. This is evident as Agnico Eagle is a recent signatory of the Toward Sustainable mining (TSM); TSM is the Mining Association of Canada's (MAC) commitment to responsible mining. It is a set of tools and indicators to drive performance and ensure that key mining risks are managed responsibly. Adhering to the principles of TSM requires Agnico Eagle to: engage with communities, commit to world-leading environmental practices, commit to the safety and health of employees and the surrounding communities. Furthermore, Agnico Eagle has taken measures to ensure scientific information is thoroughly collected and where there are threats of environmental impacts, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The Meadowbank environmental impact, socioeconomic effects, and heritage resources impact assessments originally approved within the NIRB Project Certificate No.4 have addressed all known potential effects of the project on the environment, economy, culture, and heritage of the region. The annual environmental and socioeconomic monitoring reports are available at the NIRB and NWB websites and are summarized in the socio-economic section of this EIS addendum.

4.3 Baseline Data Collection

The Vault Expansion to include Phaser Pit and BB Phaser Pit EIS Addendum used an ecosystem-based approach**,** meaning that it has describe the ecological function of each ecosystem component that is impacted by the proposed expansion into Phaser Lake. Please refer to the original FEIS where impacts or descriptions in the approved FEIS have remained unchanged. A detailed impact assessment looking at specific VECs that needed additional detailed assessments due to the proposed operations of Phaser Pit and BB Phaser Pit are presented in Appendix C and additional supporting text is presented in Section 4.18.

Baseline data collection for the area of the Vault Pit deposit (which included Phaser Lake) began in 1996 and continued through to 2005, and is described in the original FEIS*. It included Traditional Knowledge about the existing biophysical and socio-economic environments, including changes in baseline conditions due to exploration activities related to the Project. The EIS explained methodologies for baseline data collection,

evaluated the adequacy and confidence levels of the baseline data, identified all significant gaps in knowledge and understanding and the associated uncertainties, and identify the steps to be taken to fill such gaps.

In support of Vault Pit DFO authorizations, additional fisheries data were collected in Phaser Lake in 2011 as described in the original FEIS BAER*. More recently, as part of the revisions to the Meadowbank site wide DFO authorizations, in 2012 AEM collected additional fisheries baseline data in Phaser Lake confirming the 2005 findings and used the same fisheries methods outlined in the EIS. These findings are presented in the updated No Net Loss Plan or offsetting plan (AEM, 2012) found in Appendix E and in an Addendum to AEM (2012) which is found in Appendix D that offsets the loss of BB Phaser Pit (which was not originally contemplated). The original FEIS and the FEIS Addendum applies an ecosystem-based approach by describing the ecological function of each ecosystem component or VEC, indicating the ecological pathways of the impacts that are predicted, and designing mitigation and monitoring plans to deal with those impacts (presented in Section 4.21). The baseline data are summarized in a series of baseline reports that are included as supporting documents in this Environmental Assessment documentation series*.

4.4 Traditional Knowledge

Traditional knowledge (TK) was used in the original FEIS to enhance the understanding of the environment through public interaction and interviews conducted by a local Inuit heritage consultant (Hattie Mannik). Workshops were held with the community and with the Hunter's and Trapper's Organization (HTO) to help support and clarify the baseline data collected, specifically with regard to caribou migration patterns and fish. The information was collected. In addition, well-known and respected Inuit were hired as surveyors and in other capacities to help in the collection of scientific and traditional baseline data.*

No additional TK was required to be collected for this FEIS Addendum, as it was covered thoroughly in the original FEIS* and where applicable, TK was integrated into the FEIS Addendum. Since the most significant

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

impacts of operating BB Phaser and Phaser Pits is to Phaser Lake, recent public consultation further informed the revisions of the offsetting approach which were used to develop offsetting plans for the Phaser Lake fish habitat losses beginning in 2012.

4.5 Public Consultation

In conjunction with the Traditional Knowledge, the original FEIS* outlines a considerable amount of effort to integrate local residents, community organization and leaders, regulators and local experts in planning the Meadowbank mine. Public consultation assisted in identifying current and historical patterns of land- and resource-use; identifying Valued Ecosystem Components ("VECs") and Valued Socio-Economic Components ("VSECs"); determining criteria for evaluating the significance of potential impacts; deciding upon mitigating measures; formulating compensation packages; and identifying and implementing monitoring measures, including post-project audits. As documented in the original FEIS, traditional knowledge was gathered and the baseline data collection reported where, how, why, and with whom it conducted public consultation, documented efforts to inform participants and how the information that they supplied was used. Since operation of the mine began, Agnico Eagle has continued public consultation by annually meeting with the community and local stakeholders, regulatory agencies and local employees routinely which has allowed a better general understanding of the rights, interests, values, aspirations, and concerns of the potentially affected stakeholders, with particular reference to the local population. Through this continued consultation Agnico Eagle has developed an operational culture that recognizes and respect s these relevant interests in the planning and executing processes at the Meadowbank project.

Specific to Phaser Pit and BB Phaser Pit operations, AEM consulted with NIRB representatives, HTO and DFO regarding the Vault Expansion project and integrated these findings into the proposed offsetting plan for the Phaser Lake fish habitat losses. Table 4.5.1 summarizes the consultation to date related to Vault Pit Expansion (Phaser Lake and BB Phaser).

Table 4.5.1: Vault Expansion Consultation

Date	Description	Attendees
23-Feb-12	AEM presented NNL Plan concepts to HTO during site visit	Meeting with AEM and HTO at Meadowbank
30-Mar-12	Email from DFO detailing expectations for a new Meadowbank NNLP	Sent by DFO to AEM
15-Jun-12	Submission of Draft NNL Plan that included Vault Pit Expansion into Phaser Lake	Sent by AEM to DFO
19-Jul-12	Email- Comments and feedback from DFO on Draft NNL Plan; Email Entitled- Meadowbank Authorization Amendment and NNLP Contingency Plan	DFO response to AEM
13-15 Aug-12	Meadowbank site visit with DFO representatives- discussions included the review of DFO comments and feedback on NNL Plan and monitoring programs	DFO and AEM at Meadowbank
11-Mar-14	Presented the proposed Vault Pit Expansion for input from NIRB	NIRB and AEM by Conference call
1-May-15	Meeting with DFO to discuss approach to Phaser Pit and BB Phaser Pit under the new DFO Act	DFO and AEM in person in Yellowknife

4.6 Regional Context

Please refer to the *Regional Context* section of the original FEIS[*]. The regional context has not changed since the original FEIS therefore, no additional information is provided in the FEIS addendum.

4.7 Regulatory Regime

The regulatory regime has not changed since the original FEIS. The Meadowbank project is subject to the environmental review and related licensing and permitting processes established by Part 5 of the Nunavut Land Claims Agreement ("NLCA") (INAC and TFN, 1993). The components and activities associated with the project are subject to several authorizations, regulations, leases and permits from regulatory agencies that AEM applied for and were granted prior to construction and operation (see Appendix B that summarizes the leases, regulations and permits). This includes the Nunavut Water Board (NWB Type A Water License 2AM-MEA0815), Environment Canada (EC) Metal Mining Effluent Regulations (MMER) and Schedule II listing of

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

Second Portage Lake Northwest Arm; the Department of Fisheries and Oceans Canada (DFO); Aboriginal Affairs and Northern Development Canada (AANDC); the Kivalliq Inuit Association (KIA) and the Nunavut Impact Review Board (NIRB- Project Certificate No.4).

A significant difference in this Addendum, as compared to the original application and issued Project Certificate, is that Agnico Eagle has sole responsibility for the construction, operations (including dewatering and mining), ongoing inspection and maintenance of all of the components of the Meadowbank Mine Site and has been successfully operating in Nunavut for over 5 years. Whereas, in 2005 the property was owned and operated by the exploration company Cumberland Resources which was focused on generating value for its' shareholders through exploration activities. All current, applicable and active permits are the sole ownership and responsibility of Agnico Eagle Mines Meadowbank Division.

In July 2014, AEM submitted a document that presents an overview of the Vault Pit Expansion, which included Phaser Pit (but not BB Phaser Pit) to the NIRB. Despite the small addition of BB Phaser, AEM continues to emphasize that the proposed expansion into Phaser Lake is not a significant change to the Meadowbank mine, is within the scope of the original project permitted by NIRB Project Certificate No.4, and is within the KIA Production Lease (KVPL08D280).

In a letter dated January 23, 2015, NIRB notified AEM that "the proposed amendments must be a stand-alone document capable of supporting the public review, comment and assessment process". On February 13, 2015 AEM submitted correspondence to the NIRB requesting additional clarification on the sections of the Guidelines that the NIRB considered applicable to the amendment. As a result, AEM has used the original FEIS guideline document format and has prepared a standalone Addendum to the FEIS; AEM requests that NIRB reconsider the Terms and Conditions of the Project Certificate related to Vault Pit Expansion (Phaser Pit and BB Phaser Pit) under Section 12.8.2 of the NLCA.

Phaser Lake is an isolated "offline" lake that drains into Vault Lake through a boulder field. During the original NIRB hearings, water management plans were designed to control water accumulation in Vault attenuation area

from Phaser Lake and maintain a natural water level to protect fish habitat (specifically overwintering habitat). The water management plan that was presented included the pumping of water from Phaser Lake into Turn Lake, an adjacent watershed. At that time, the DFO had concerns with the water management plan and the protection of Phaser Lake fish habitat through the life of the mine and ensuring no sedimentation occurs during pumping into Turn Lake. As a result, NIRB Condition 48 states – Cumberland shall demonstrate to the satisfaction of the DFO that the water management framework, including the embankment details and diversion ditch (instead of pumping), will permit the maintenance of over-wintering fish habitat in Phaser Lake through the life of the Project.

Since then, the Vault waste rock storage area has been reconfigured (i.e. there is a smaller footprint than originally proposed), water management plans have changed to keep water within the Vault Lake watershed and AEM has worked closely with the DFO to ensure the protection and/or offset of fish habitat in the Vault Area that includes Phaser Lake through the revisions to the No Net Loss Plan (AEM, 2012 – Appendix D and Appendix E). During the dewatering of the Vault Lake and initial phase of the Vault Operations, Phaser Lake overwintering fish habitat has been protected as per NIRB Condition 48, to the satisfaction of the DFO (water levels have been maintained around 139.55 masl, with some freshet volume discharging into Vault Lake). After dewatering Vault Lake, it was not deemed necessary to construct diversion ditched which would alter the adjacent watershed, thus protecting Turn Lake and maintaining Phaser Lake fish habitat. With revised LOM plans to include Vault Pit Expansion into Phaser Lake and the resulting changes to Phaser Lake that have been in the No Net Loss Plan (AEM, 2012), AEM is requesting NIRB to reconsider the Terms and Conditions of the Project Certificate (specifically Condition 48) as described in Section 3, under NIRB's authority in Section 12.8.2 of the NLCA.

4.8 Land Tenure

Please refer to the Land Tenure section of the original FEIS*. The land tenure has not changed since the original FEIS therefore, no additional information is provided in the FEIS addendum.

4.9 Project Justification

4.9.1 Project Purpose and Rationale

Since 2009, the Meadowbank Gold Project operated by Agnico Eagle Mines Limited - Meadowbank Division (AEM) has operated the Meadowbank Gold Mine. The mine is located 75 km north of the Hamlet of Baker Lake, Nunavut. The project components include marshalling facilities in Baker Lake, the 110 km All Weather Access Road (AWAR) between Baker Lake and Meadowbank, the Vault mine site and the Meadowbank mine site. The Meadowbank mine consists of several gold-bearing deposits that will be mined until 2018. Mining at Meadowbank is occurring in three open pits (Goose Pit, Portage Pit and Vault Pit) (Figure 4.9.1). Much of the pit development is located in close proximity to the mill, office and lodging infrastructure, with the exception of the Vault Pit which is approximately 8 km northeast of the main mine site.

These various components and activities associated with the project are subject to several authorizations, regulations, leases and permits from regulatory agencies that AEM applied for and were granted prior to construction and operation (see Appendix B that summarizes the leases, regulations and permits). This includes the Nunavut Water Board (NWB Type A Water License 2AM- MEA0815), Environment Canada (EC) Metal Mining Effluent Regulations (MMER) and Schedule II listing of Second Portage Lake Northwest Arm; the Department of Fisheries and Oceans Canada (DFO); Aboriginal Affairs and Northern Development Canada (AANDC); the Kivalliq Inuit Association (KIA) and the Nunavut Impact Review Board (NIRB- Project Certificate No.4).

All of the permits and authorizations were approved and were based on the original (2005) environmental management plans and later updated (as required by the NWB) and the associated life of mine (LOM) plans which did not consider the Vault expansion to include BB Phaser and Phaser Pit that reside in Phaser Lake. Consideration for expansion of the mine is a continuous process based on many operational and economic considerations. Initial feasibility studies did not consider Phaser Pit, however this was dependant on scale, timing, the potential environment impacts and the economics at the time. As the economics of the project have

changed and the details of last few years of the Meadowbank mine are optimized, mine engineers began considering the feasibility of expanding Vault Pit beyond what was approved in the original FEIS.

Phaser Pit and BB Phaser pit are small open pits that extend from the perimeter of the Vault Pit to the southwest into Phaser Lake. Nearly all of the operations are within the high water mark of Phaser Lake. Until recently, for economic reasons, it has not been part of the life of mine (LOM) at Meadowbank. The Vault expansion into Phaser Lake is part of an effort to extend the LOM at Meadowbank while exploration activity continues (including the Amaruq property – see Figure 4.9.2). As a result of these economic changes, AEM discussed the Vault Pit expansion with the Baker Lake HTO, KIA and DFO beginning in 2012 (as part of a revision to DFO mine site authorizations) and to NIRB representatives during a conference call hosted on March 11, 2014.

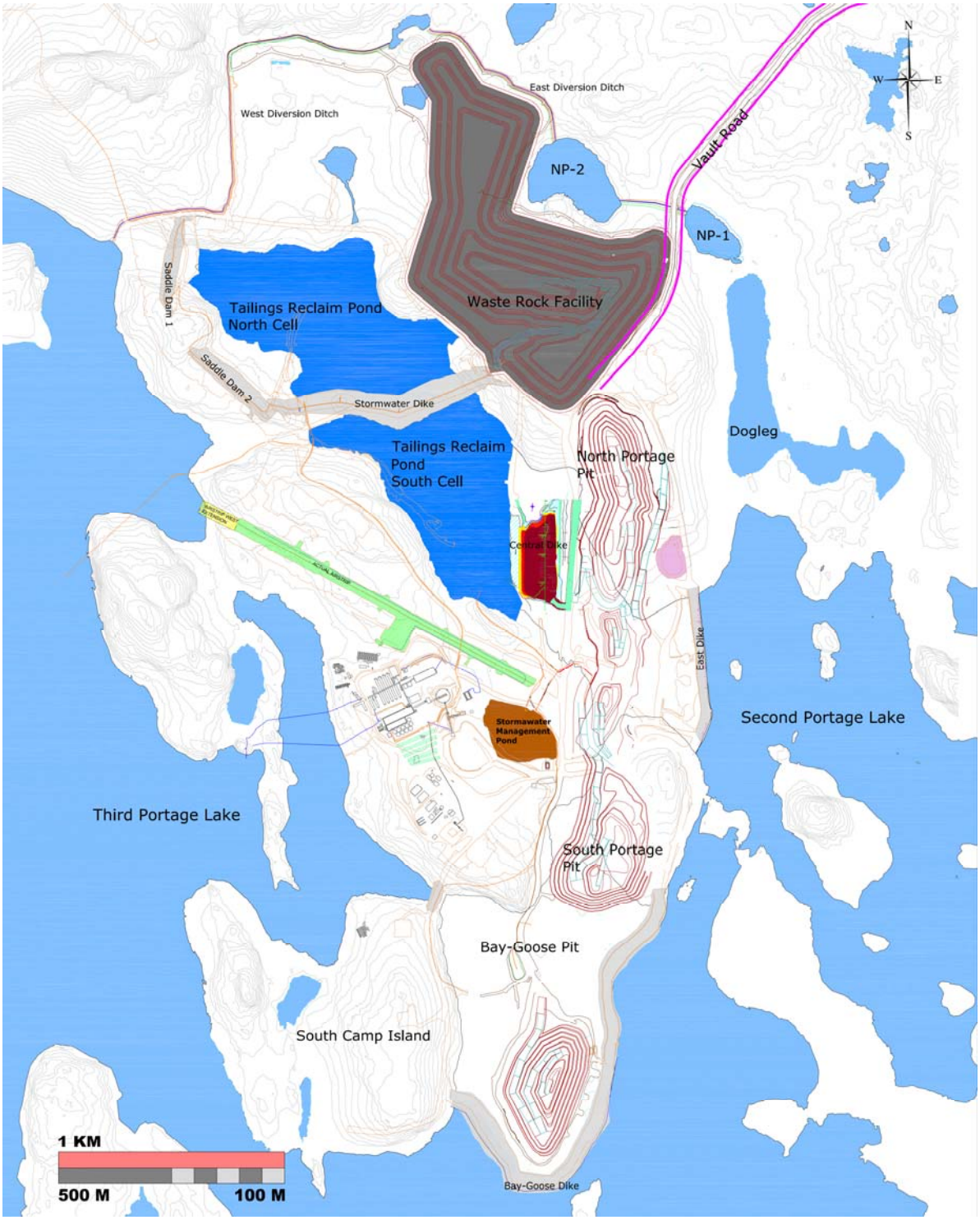

Figure 4.9.1: Meadowbank Mine General Layout

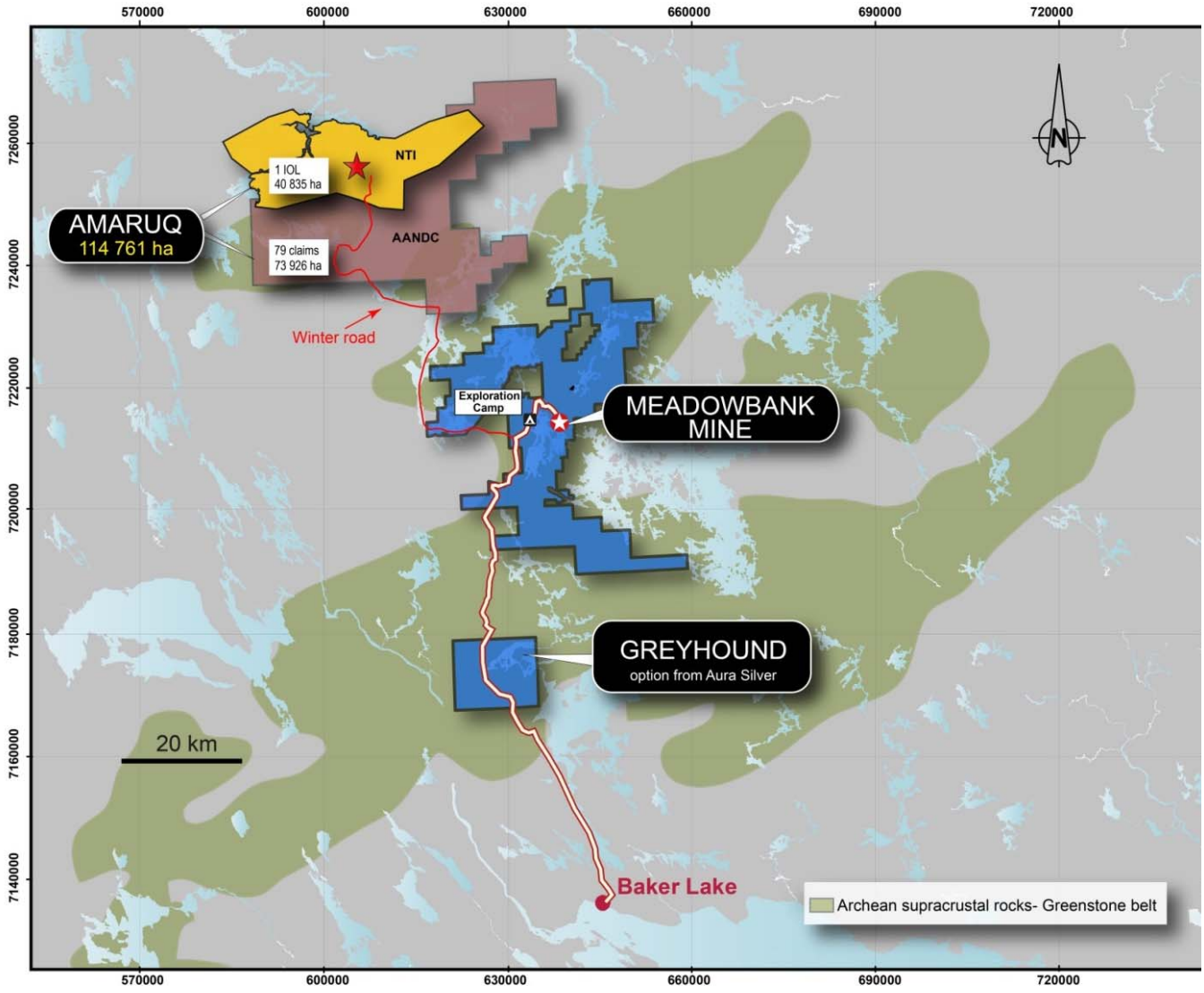

Figure 4.9.2: Regional Projects and Claims in Proximity to the Meadowbank Mine

4.9.2 Project Need

Currently, the Kivalliq region of Nunavut offers limited, and usually seasonal, employment opportunities. The population is predominately young with a high level of unemployment. Elders have stated that the young must find jobs in the wage economy as they will not be able to live off the land as Inuit did earlier. The current Meadowbank Mine is an important contributor (through employment income) to the economy of Baker Lake and

to the economy of the Kivalliq Region, especially to the communities of Arviat and Rankin Inlet. The Meadowbank Mine is scheduled to exhaust its mineable reserves that were authorized under original NIRB Project Certificate 004 by the end of 2017. The proposed operation and development of Phaser Pit and BB Phaser Pit in Phaser Lake will allow for approximately one additional month of mining.

AEM is also looking at other steps to extend the Meadowbank mine life beyond 2017, specifically:

i) In addition to the Phaser Pit to restore mineable reserves in Vault Pit that were originally assessed in the FEIS. These reserves were authorized previously via the NIRB and NWB processes. The reserves were removed from the mining plan in 2012 when the price of gold fell (this expansion would be). In other words these previously approved reserves along with the Phaser expansion will extend the current mine life by approximately 1 year (as originally assessed) and

ii) by developing new reserves at exploration properties in the region (i.e. the Amaruq deposit located 50 km from the Vault Pit).

Consequently Vault expansion to include Phaser Pit and BB Phaser into Phaser Lake, which is the subject of this addendum, has the objective of extending the life of the Meadowbank Mine, which in turn would continue current employment levels, and business opportunities beyond the current planned end of mine life (Q3 2017). Benefits will accrue to Inuit from the IIBA, and also from royalties paid to NTI over the extended operating life of the mine.

Many of the policies and strategies for Nunavut speak to self-reliance and improved quality of life as drivers for economic development. This requires both the protection and use of renewable resources balanced with the development of non-renewable resources. Continued operation of the Meadowbank Mine will contribute to the economic development of Nunavut in ways that support self-reliant communities. It will reduce dependence on government without compromising the health of the people or the land through the creation of stable private sector employment that will both contribute to a better standard of living for the residents of Kivalliq as well as reducing dependence on social assistance programs. The Meadowbank mine extension will lend support to the

vision and contribute to the goals of Inuit Beneficiaries of Nunavut as expressed by NTI and KIA. It will also contribute to the vision and goals for a more self-reliant Nunavut for all Nunavummiut as projected by the Government of Nunavut in its published objectives and strategies. The Project will also contribute to the economic vision of a more self-reliant Nunavut as a key contributor to the future economic well-being of Canada as projected by the Government of Canada (GN 2007, GN 2009).

The Nunavut Land Claims Agreement states that the purpose of Inuit-Owned Lands (IOL) is to "…promote economic self-sufficiency of Inuit through time, in a manner consistent with Inuit societal and cultural needs and aspirations" (NLCA 17.1.1) and this economic self-sufficiency will be obtained through balanced economic development and selection of IOL that holds value both for renewable resources and the development of non-renewable resources (NLCA 17.1.2 and 17.1.3)". Approximately 90% of all IOL identified in the NLCA is IOL-Surface lands in which Inuit Organizations administer surface rights only. The remaining IOL is designated to have both surface and subsurface (mineral) rights administered by Inuit organizations. The Vault Pit, Phaser Pit and BB Phaser Pit are located on IOL where the surface rights and subsurface mineral rights are administered for the benefit of Inuit Beneficiaries by Inuit Organizations, KIA and NTI, respectively.

The Government of Nunavut describes the vision for Nunavut to the year 2030 and lists an improved standard of living; active, healthy and happy individuals and families; self-reliant communities with strong Inuit societal values and recognition for Nunavut's unique culture. Nunavut's economic and social development plans focus on the economic sectors that can provide the most growth and employment potential, without harming the environment. These sectors are mining, tourism (and arts and crafts) and commercial fishing (GN 2007).

To forgo the development of the Vault expansion of BB Phaser and Phaser Pit would mean abandoning forthcoming benefits and revenue stream to NTI and KIA, from direct taxes paid to hamlet, territorial and federal governments, personal income tax and sales tax from employment. The policies and strategies of Government and Inuit organizations will not easily be met in Kivalliq and Nunavut. Continued underemployment and limited opportunities for young members of society is likely to lead to increased social stress.

The purpose of the proposed Vault Pit expansion is to extend mining at Meadowbank, process the ore on site to extract the gold as a gold bullion, and then to ship the gold bullion for final refining and subsequent sale into the world gold markets. Gold is used in a number of uses including jewelry, electronics and underpinning the value of money. The extension of the Meadowbank Mine life will contribute to durable social and economic benefits:

- Create employment for Canadians;
- Create employment for Nunavummiut;
- Contribute to the vision and goals of Nunavummiut in terms of sustainable development (employment, training, career development, economic stability for residents of the Kivalliq region, and the creation of new business opportunities for Nunavut based businesses);
- Contribute to the vision and goals of Inuit Beneficiaries through royalty payments to Nunavut Tunngavik Inc. and through land use fees, water compensation payments and IIBA benefits to the Kivalliq Inuit Association allowing both NTI and KIA to pursue their goals for sustainable development of Inuit Owned Lands;
- Provide revenue to the Government of Canada through corporate and income taxes allowing Canada to continue funding northern development and northern programs;
- Provide revenue to the Government of Nunavut (GN) through payroll taxes, equivalent municipal taxes and fuel taxes allowing the GN to pursue its goals and vision for Nunavut; and
- Generate a return on the investment made by AEM on behalf of its shareholders (return on investment) and generate a profit for AEM and its shareholders.

The proposed extension of the Meadowbank Mine to include Phaser Pit and BB Phaser Pit will be financed by Agnico Eagle from its own operating revenue stream. Moving forward with this proposed pit expansion is not reliant on future external financing and the cost of reclamation has already been fully recognized by AEM in its recent submissions to the NWB as part of the Type A renewal.

4.10 Project Description

4.10.1 Project Components and Activities

The Vault Area is approximately 8 km North East of the main mine site and is accessible by a haul road which was constructed in 2012. In 2013, the mine began stripping and preparing for operations of the Vault Pit which began in Q1 of 2014. The Vault mine site currently consists of a maintenance shop, shelter/refuge, a waste rock storage facility, an attenuation pond, a water collection and treatment system, haul roads and the Vault Pit. Figure 4.10.1 presents the site infrastructure. As per the original FEIS[*] all activities associated with the construction, development and operation of Phaser Pit and BB Phaser Pit will continue to use the currently approved mine facilities. See Figure 4.10.2 taken from the original FEIS with approved infrastructure layout. There are no significant infrastructure requirements and the total mining footprint is relatively the same taking into account the reduced size of the waste rock storage facility.

All subsequent changes to the infrastructure have been reviewed and subsequently approved by regulatory agencies. *Specifically the following project components and activities will remain the same as current operations and are already approved and screened in the original FEIS:*

- *Waste rock from Phaser Pits will be stored within the approved Vault Waste Rock facility according to the approved waste rock management plan;*
- *Work force will remain the same and will continue to maximize employment of Nunavummiut;*
- *Transportation to site (marine barging, air strip and transportation along the AWAR), housing and handling will remain the same;*
- *Use, transportation, handling and storage of fuel, hazardous materials, concreate and aggregates;*
- *Water supply for milling will continue to be sourced in the reclaim pond located near the mill and freshwater will continue to be taken from Third Portage Lake as approved by the NWB;*

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

- *Ore processing, handling, treatment and disposal will continue at the Meadowbank Mill and tailings will be stored in the approved tailings storage facility;*
- *Sewage and treatment/ disposal will continue to use the approved facilities;*
- *Power generation; and*
- *Site rehabilitation remains the same as described in the Project Certificate.*

A few changes will occur that are outside the original impact assessment in the original FEIS, but are within the scope of the currently approved project and Type A Water License. These include:

- The construction and operation of a few addition of haul roads connecting the new pits to Vault Pit infrastructure;
- Water diversion and water management in Vault area will extend by 1 month of operations, but will not significantly change closure plans;
- Dewatering of Phaser Lake, a fish out and partial destruction and offsetting of the loss of fish habitat in Phaser Lake; and
- Reflooding of Phaser Lake.

These small differences that slightly change the Meadowbank Mine from the original FEIS are the focus of the impact assessment presented in this FEIS Addendum. The Addendum focuses on presenting the operations related to the operational changes associated with mining of these two small pit extensions. The document also provides an assessment of impacts, mitigation, monitoring and management measures that are in place or will be implemented by Agnico Eagle for the proposed Phaser Pit and BB Phaser Pit development and operations.

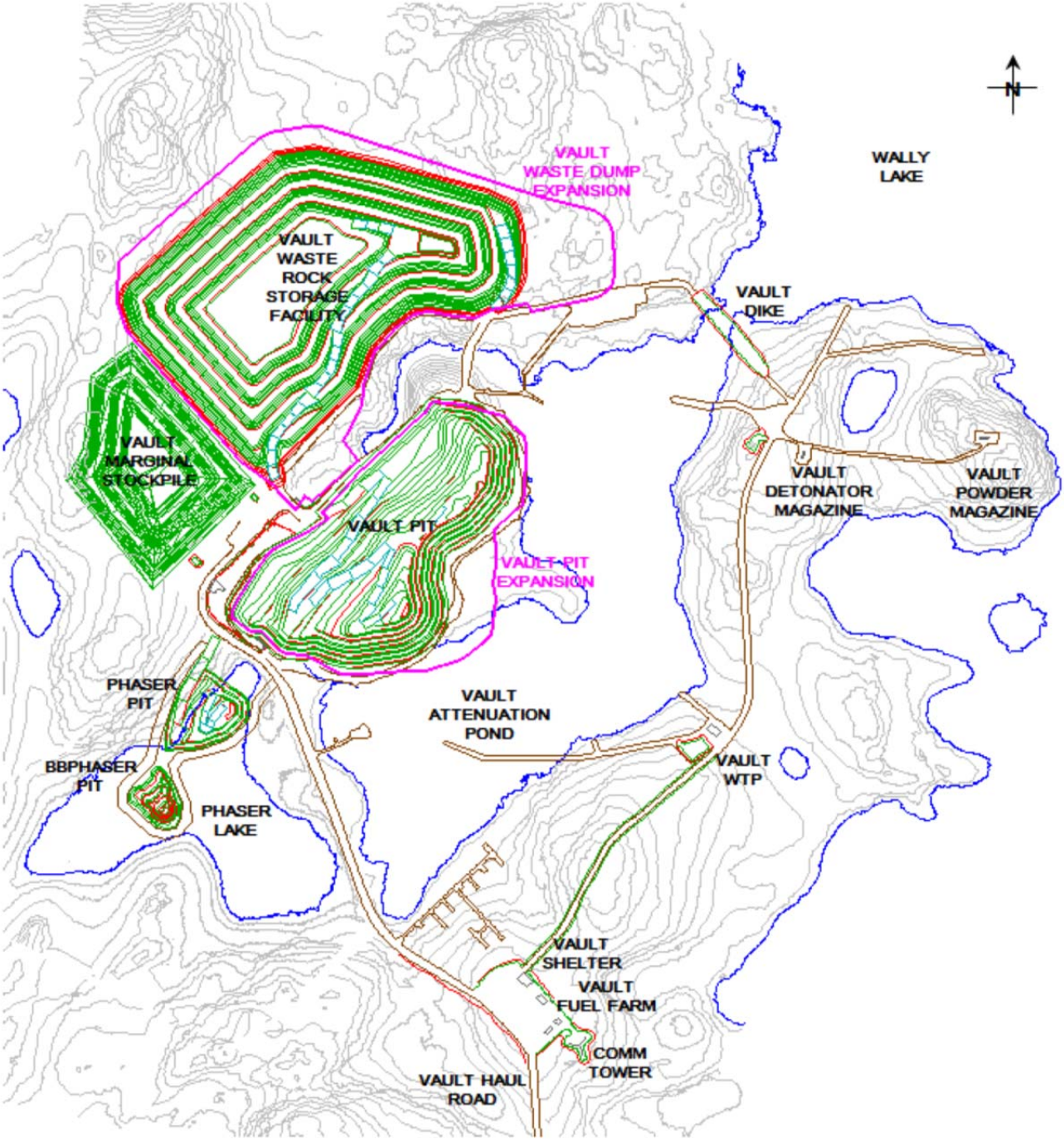

Figure 4.10.1: Vault Pit, Phaser Pit and BB Phaser Pit Layout and Waster Rock Pile

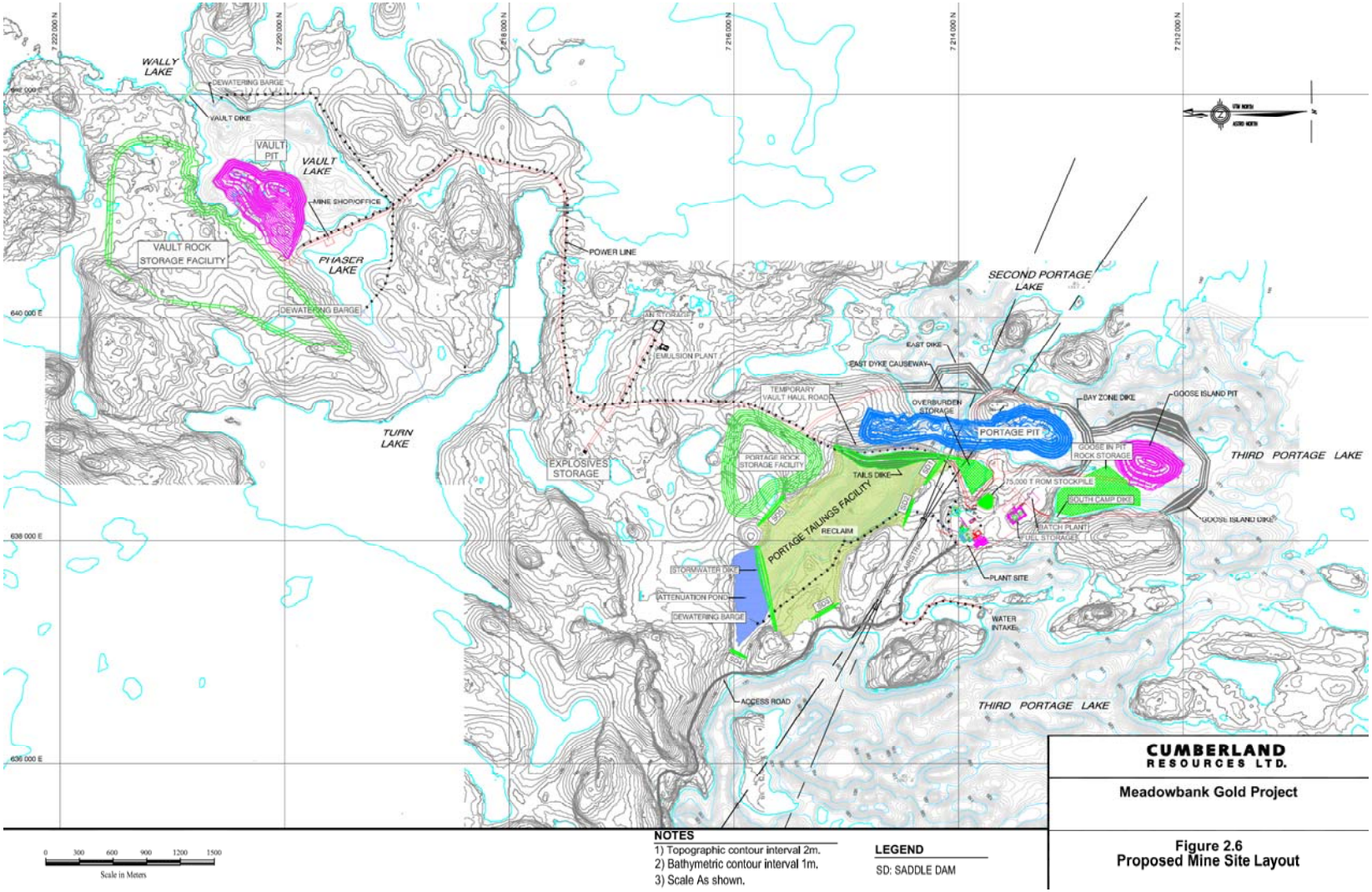

Figure 4.10.2: Original FEIS approved site layout. Note Vault Pit, Phaser Pit and BB Phaser Pit and Waste Rock Storage Facility are smaller in surface area than the current mine plan than what is was approved in 2008

4.10.1.1 Vault Expansion: Deposit, Mining Methods and Production of Phaser Pit and BB Phaser Pit

The Vault Pit expansion is a small open pit that extends from the perimeter of the Vault Pit to the southwest into Phaser Lake (See Figure 4.10.1). AEM is planning to mine the Phaser and BB Phaser open pits at the end of the life of mine in Q1 2017. This is an extension of the Vault Pit deposit. As a result the ore is located in Intermediate Volcanic structure with low potential for acid rock generation and variable (low to moderate) potential for metal leaching. Ultimately, the approved waste management plans will not change as all of the waste will be sent to the approved Vault waste rock facility. The pit design and geotechnical stability will be monitored using the same best practices applied currently at the Meadowbank Mine. The production details of the proposed Phaser Pit and BB Phaser Pit in Phaser Lake are presented in Table 4.10.1. AEM will use the same equipment already on site that is currently in use for the Meadowbank Mine.

As approved under the NIRB Project Certificate No. 4 and NWB Type A water license NWB-2AM-MEA0815 AEM has dewatered Vault Lake, established a waste rock storage facility and began open pit mining at the Vault Pit in 2014. Mining methods, ore handling and milling facility will remain the same as was approved in the original FEIS*.

The production details of the approved Vault Pit are presented in Table 4.10.1. It is evident from this data that waste rock storage and milling will not significantly change as a result of the proposed Vault Pit expansion into Phaser Lake. In summary, the Vault Pit Expansion to include Phaser Pit and BB Phaser Pit represents 402,388 tonnes of additional ore or 3.8% of the total ore of Vault Pit Deposit and is approximately 1.3% of the total ore production at Meadowbank.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

Table 4.10.1: Overall Mine and Vault Pit Production as compared to the proposed Vault Expansion to include BB Phaser and Phaser Pit

	Meadowbank Mine (LOM 2013)	Vault Pit	% of Mine	Proposed Phaser pit	% of Mine	% of Vault Pit	Proposed BBPhaser pit	% of Mine	% of Vault Pit
Total Rock Removed (tonnes)	241,739,796	84,968,055	35%	2,554,366	1.1%	3.0%	793,499	0.3%	0.9%
Waste Rock (tonnes)	211,902,397	74,270,813	35%	2,284,928	1.1%	3.1%	660,549	0.3%	0.9%
Ore (tonnes)	29,837,399	10,697,242	36%	269,438	0.9%	2.5%	132,950	0.4%	1.2%

4.10.1.2 Processed Ore Containment (and Tailings Ponds)

Please refer to the tailings storage and methods section of the original FEIS*. Since then, Agnico Eagle has updated tailings storage, water management and waste management plans that have been submitted to the NWB for review and approval, most recently through the Type A renewal process. These important mine plans are updated annually and submitted in the Meadowbank Annual Report. For the purposes of this addendum, please refer to the original FEIS as there are no significant changes from 2005 in tailings management and storage. The infrastructure and tailings storage approach has not changed from these approved plans and will accommodate an additional throughput of 402,000 tonnes of ore, the water will be managed as per the original FEIS and capped accordingly. Refer to Section 4.21.1 for the tailings storage operational plan and mine No additional information is provided in the FEIS addendum.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

4.10.1.3 Overburden and Waste Rock Disposal

As presented in Table 4.10.1, the Phaser Pit and BB Phaser Pit operations will remove a total of 2.95 M tonnes of waste rock with approximately 0.4 M t of overburden. All this material will be send to the approved Vault Waste Rock Storage Facility.

4.10.1.4 Water Supply and Management

Meadowbank' s NIRB Project Certificate and the NWB License (2AM-MEA0815) originally permitted Agnico Eagle to use 700,000 m^3 per year of freshwater for domestic camp use, mining, milling and associated uses. Despite significant improvements and optimization of freshwater use, requirements exceed the permitted volume. On April 23, 2013, Agnico Eagle Mines (AEM) Meadowbank Division submitted a request to the Nunavut Water Board for an amendment to increase the freshwater use rate at the Meadowbank Gold Project. The water license amendment pre-hearing conference and technical meeting was held in Baker Lake on October 16 and 17, 2013. The final written hearing was held on January 17, 2014. On June 30, AEM received an approval letter from NWB which permitted the withdrawal of 1,870,000 m^3 in 2013 and 1,150,000 m^3 per year after 2013. Those documents were forwarded to Minister of Aboriginal Affairs for his final approval. On July 23, AEM received the final approval from the Minister (Appendix G). This approved increased freshwater use will accommodate the expansion of Vault Deposit (Phaser Pit and BB Phaser Pit) production increases. The 2013 updated site wide SNC water management plan (which has an updated water quality balance) includes dewatering Phaser Lake and is provided in Appendix F – SNC (2013).

4.10.1.5 Phaser Lake Dewatering

AEM proposes to begin dewater Phaser Lake in Q2 of 2016 while completing a fish out in Q3, in advance of mining in Q1 2017. Dewatering will take less than 3 months (volume of Phaser Lake is estimated at 700,000 m^3). Water is proposed to be transferred into the Vault Attenuation Pond, treated by removing total suspended solids if needed, and discharged through a diffuser into Wally Lake. All current criteria stated in the Type A Water License as well as MMER criteria will be met during discharge from the Vault Attenuation Pond.

The NWB approved Water Quality Monitoring and Management Plan for Dike Construction and Dewatering will be followed. The mining is expected to occur during the winter months and we are not expecting having any pit water. If pit water is encountered, it will be send to the Vault Attenuation Pond.

No other dewatering or water management is required for Phaser Pit and BB Phaser. Refer to the site wide water management plan provided in Appendix F.

4.10.1.6 All-Weather Roads and Winter Roads

As presented in section 4.10.1 there are no anticipated changes to the All Weather Roads and no winter roads are proposed. Please refer to the original FEIS* as there is no additional information is provided in in the FEIS addendum.

4.10.1.7 Airport Facilities

As presented in section 4.10.1 there are no anticipated changes to the currently approved Airport Facilities. Please refer to the original FEIS*. In addition to the original FEIS, AEM was granted regulatory approval to extend the airstrip into Third Portage Lake. Following a screening decision by NIRB and the DFO approval to build the airstrip, on January 27, 2013, Agnico Eagle Mines: Meadowbank Division (AEM), sent a letter with supporting information entitled “Meadowbank Mine: Airstrip Expansion- NWB Modification Application” (AEM, 2013) to the NWB to modify NWB license 2AM-MEA0815 under Part G to include an expansion of the airstrip. The NWB received comments and approved the modification (Motion No. 2012-B1-019) and AEM was advised to follow the conditions in the letter, supporting information and Type A License accordingly. The construction of the airstrip extension was completed in April 2013 and since then. There is no additional information on the approved airport facility that is provided in in the FEIS addendum.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

4.10.1.8 Fuel and Explosives Storage Sites

As presented in section 4.10.1 there are no anticipated changes to the Fuel or explosives storage sites for the Phaser Pit and BB Phaser Pit operations. Please refer to the original FEIS* as there is no additional information is provided in in the FEIS addendum.

4.10.1.9 Borrow Pits and Quarry Sites

As presented in section 4.10.1 there are no borrow pits or quarry sites required for Phaser Pit and BB Phaser Pit operations. All new road material will be borrowed from Vault Pit for the construction and maintenance of new haul roads. Please refer to the original FEIS* as there is no additional information is provided in in the FEIS addendum.

4.10.1.10 Waste (Domestic and Hazardous) Management

As presented in section 4.10.1 there are no anticipated changes to the hazardous waste or domestic waste associated with the Phaser Pit and BB Phaser Pit operations. All hazardous waste will be properly shipped to approved facilities in the south, food waste will be incinerated at the Meadowbank Mine and all remaining waste will be sent to the approved Meadowbank landfill. Please refer to the original FEIS* as there is no additional information is provided in in the FEIS addendum.

4.10.1.11 Power

As presented in section 4.10.1 there are no changes to the power requirements for Phaser Pit and BB Phaser Pit operations. Please refer to the original FEIS* as there is no additional information is provided in in the FEIS addendum.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/
* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/
* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/
* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

4.10.2 Project Design

Meadowbank feasibility and design studies continue to design and adjust pit slopes, waste rock storage, tailings storage and to both the cold northern climate and remote location as the principal engineering considerations for successful design, construction, and operation. Consistent with the original FEIS, the BB Phaser and Phaser Pits were designed to minimize the areas of surface disturbance, stabilize disturbed land surfaces against erosion, and return the land to a post-mining use for traditional pursuits and wildlife habitat. This will mainly be achieved by rapidly dewatering during the open water season (proposed in 2016), mining the pits in the winter of Q1, backfilling portions of the pit while mining and then reflooding as early as possible during closure.

4.10.3 Pace, Scale, and Timing of Project

It is expected that Vault expansion into Phaser Lake, BB Phaser Pit and Phaser Pit, will be mined in Q1 of 2017. With NIRB, NWB and DFO approval, the preliminary schedule requires dewatering and a fish out of Phaser Lake to begin in Q2 2016. As will be discussed in the rest of the report, the NIRB, NWB and DFO have approved the concepts of dewatering and removing fish as part of the original NIRB screening and NWB Type A License.

4.10.4 Future Development

As previously discussed in Section 4.9.2 the Meadowbank Mine is scheduled to exhaust its mineable reserves that were authorized under original NIRB Project Certificate 004 by the end of 2017. The proposed Vault expansion to include BB Phaser Pit and Phaser Pit will extend this mine life by approximately 1 additional month. AEM is also looking at other steps to extend the Meadowbank mine life beyond 2017, specifically:

i) to restore mineable reserves in the Vault Open pit that were removed from the mining plan in 2012 when the price of gold fell (this expansion would be within the activities already authorized under the current Project Certificate). AEM is looking to extend the current mine life by several months through moving back to this original mine plan; and

ii) by potentially developing new inferred reserves found at the Amaruq deposit located 50 km from the Vault Pit that would trucked to and milled at the Meadowbank site. Exploration activities at this site have been very promising and this site has the potential to add many years to the Meadowbank mine life with both open pit and underground inferred reserves.

4.10.5 Technology

The most current concepts have been selected for project design (i.e., mining, processing, tailings disposal, and effluent treatment). Although the technologies are considered state-of-the-art, the Meadowbank project team have adapted to difficult climactic conditions and have designed infrastructure accordingly and used up to date technology to solve problems. As an example we continue to work with researcher at RIME (Research Institute of Mine and Environment) as part of a research project to evaluate tailings encapsulation at Meadowbank. Presently two experimental cells were built: one with a cover of NPAG material of 2.0m over the tailings, and one with a cover of NPAG material of 4.0m over the tailings. The experiment cells are instrumented with temperature probes, water content probes, suction probes and oxygen consumption probes. The data from the instrumentation is collected by AEM and sent to RIME for analysis. When additional data will be available after a complete year of instrumentation readings, the data will be presented and commented on in the 2015 Annual Report. Additional test pads may be constructed over the tailings in 2015. This information will also use in the design work of the tailings cover required at closure. Thermistors are also installed in the Waste Rock Storage Facility. RSF-1 was installed in February 2013 and RSF-3, RSF-4, RSF-5 and RSF-6 were installed on the RSF in November 2013. The results of the thermistor RSF-1 indicates that below approximately 5.6 m from the surface, the temperature remains below 0 Celsius all year long. As part of the research project with the RIME, additional instrumentation will be installed in 2015 to evaluate the performance of the Waste Rock Storage facility.

Furthermore Agnico Eagle continues to work with academic and government researchers to improve the ability to predict and monitor environment impacts (specifically related to caribou, predatory birds and fisheries monitoring) in the north.

The mining and processing techniques proposed for Phaser Pit and BB Phaser Pit are an extension of current mining practices, thus we intend to use familiar, proven approaches seen at many mining operations in production today however we are continually addressing problems using proven newest technologies to improve mining efficiency, production efficiency, reduce fuel consumption, and ultimately reduce emissions.

4.11 Alternatives

The proposed Vault expansion to include Phaser Pit and BB Phaser Pit is an opportunity made real by the existence of the existing mining and milling facilities at the Meadowbank mine site. Without these existing facilities it is not likely that these ore reserves could be economically mined. Alternative mining methods were explored but were quickly dismissed as being not economically feasible. For example these reserves cannot be economically extracted via underground mining.

Consequently the only alternative is the “no-go” or no-project alternative. Without this expansion the Meadowbank Mine will close one month earlier if this expansion does not occur. The environmental and socio-economic effects (both positive and negative) are the subject of this addendum. Overall AEM is of the belief that the positive effects outweigh the negative effects and thus has applied for authorization to proceed with this pit expansion. AEM is of the belief that all of the negative effects can be mitigated in the short term.

4.12 Description of Physical Environment

Geology and Palaeontology

The Meadowbank project is located in the Canadian Shield, the largest physiographic region of Canada. Two main faults have been encountered in geotechnical drilling completed to date; the Second Portage Lake fault, and the Bay Zone fault. The Second Portage Lake fault trends in a northwest-southeast direction along Second

Portage Lake while the Bay Zone Fault trends in a north-south direction. Stratigraphic contacts are also pervasive structures. No sites of palaeontological or palaeobotonical significance were found.

Please refer to the original FEIS* baseline reports as there is no additional information on Geology or Palaeotonloty is provided in in the FEIS addendum.

Permafrost and Hydrogeology

Permafrost is defined as ground (soil or rock and included ice or organic material) that remains at or below 0°C for at least 2 consecutive years. The Canada Permafrost map by Natural Resources Canada (1995) suggests that the permafrost in the Canadian Shield will extend to depths of more than 500 m in the northern Ungava Peninsula, Somerset Island, and Bathurst Inlet and decreases in thickness to about 60 m in the Churchill area, which lies near the limit of continuous permafrost. Palsa, peat plateaus, thermokarst lakes, patterned ground (mudboils, polygons, stripes), solifluction lobes, rock heave features, and block fields are the principal manifestations of permafrost (Dyke et al. 1989). The role of frost action is particularly evident on frost shattered bedrock and in areas of thick, fine grained sediments. In bedrock areas, the presence of permafrost is indicated by the occurrence of ice in rock pores, and lenses and veinlets of ice in fissures (Dyke et al. 1989).

The Phaser Pit and BB Phaser Pit site area is found in the zone of continuous permafrost (Natural Resources Canada 1995), meaning that permafrost is found underlying 90 to 100% of the landscape.

The presence of permafrost and associated ground ice strongly influences the properties and performance of earth materials, landscape processes, and surface and subsurface hydrology, and also control much land and property development. French (1989) suggests that mudboils occur widely in the District of Keewatin – natural moisture contents are near the liquid limits, so that the muds liquefy and flow readily in response to slight changes in moisture content or slight internal or external stresses.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

The Meadowbank Project is located in the area of continuous permafrost, except under lakes where taliks, areas of permanently unfrozen ground, are expected where water depth is greater than about 2.0 to 2.5 m. The depth of permafrost is estimated to be in the order of 450 to 550 m, depending on proximity to lakes. The depth of the active layer ranges based on depth of overburden, vegetation and organics, proximity to lakes, and aspect is about 1.0 to 1.5 m. The talik beneath Vault Lake does not penetrate through permafrost and this is likely to be the case for Phaser Lake.

Please refer to the original FEIS* baseline reports as there is no additional information provided in in the FEIS addendum.

Soils

As described in the original FEIS, the regional landscape is dominated by an abundance of waterbodies surrounded by uplands with terrestrial vegetation. Open water, including rivers, lakes, and a portion of Hudson Bay, represent a large proportion of the study area. The most common terrestrial plant community in the region is heath tundra, which is dominated by low-growing heath shrubs, such as marsh Labrador tea (Ledum palustre), bearberry (Arctostaphylos sp.), and black crowberry (Empetrum nigrum). Drier areas associated with bedrock outcrops and boulder fields are characterized by abundant lichens, with limited vascular plant cover. Poorly drained areas in the regional landscape are predominantly characterized by graminoid tussock-hummock communities, with low shrub communities occurring along riparian areas adjacent to stream, ponds, and lakes.

Please refer to the original FEIS* baseline reports as there is no additional information on soils is provided in the FEIS addendum.

Sediment Quality

As described in the original FEIS, Lakebed substrate in the project area is a key habitat attribute that dictates the species composition and abundance of benthic invertebrates and its importance as feeding habitat by fish.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

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Water depth is the strongest determinant of physical features of lake substrate, especially grain size. Between the surface and about 4 m depth, substrate consists of a heterogeneous mixture of boulder, rock, and cobble that is ice scoured (< 2 m) and subject to erosion by wave-driven currents. Below 4 m depth, sediment grain size diminishes with sand, silt, and clay, becoming more abundant. At depths of 6 to 8 m and greater, bottom sediment consists of a uniform silt/clay mixture that dominates aerial substrate distribution in all of the project lakes including Phaser Lake.

Sediment samples at depths of 8 m or greater collected from numerous locations throughout the project and reference lakes revealed a great similarity in grain size, organic carbon (2.5% to 5%) and metals concentration. Total metals concentration in sediment was similar among project and reference lakes and over years, suggesting that the erosional and geochemical processes within lakes in the Meadowbank region are similar. The majority of lake sediments are potentially acid generating, with relatively low sulphur but almost no buffering capacity.

At Meadowbank, all sediment metals concentrations observed can be regarded as background because of the near absence of anthropogenic activities. Metals concentrations are generally similar across the area, including reference lakes, and reflect the natural, mineralized nature of the sediments and low rate of deposition.

Please refer to the original FEIS* as there is no additional information on sediment quality is provided in in the FEIS addendum.

Water Quality

The Meadowbank project area lakes are ultraoligotrophic, soft water, nutrient poor and isothermal with neutral pH and high oxygen concentrations year round. Limnological conditions tend to be very stable, with uniform, vertical temperature, and oxygen and nutrient distributions with only minor, temporary stratification. Water clarity is extremely high with Secchi depths of 10 m or more, with very low dissolved and suspended solids concentrations. Given the absence of tributary streams, there are no external sources of nutrients or sediment

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

that might contribute to nutrient enrichment. Due to the site's northern latitude and climate, lakes in the area naturally experience long periods of cold temperatures and low light levels during the winter months. Ice covers the lakes for extended periods of time each year and low water.

Phaser Lake baseline water quality was collected in 2012 and is described in Appendix D.

For water quality baseline data for other components of the Meadowbank Project area the reader is referred to the original FEIS[*] baseline reports. No new additional information on baseline water quality outside of that referenced above is provided in this FEIS addendum as the Meadowbank Mine has been in operation since 2010 and consequently water quality data collected after this date can no longer be called baseline data but is now part of the ongoing water quality monitoring data record that has been submitted by Agnico Eagle to the NIRB with each annual report since 2009.

Noise and Air Quality

Please refer to the original FEIS[*] baseline reports as there is no additional information on air and noise that is provided in the FEIS addendum.

4.13 Description of Biological Environment

Seven VECs were considered part of the terrestrial ecosystem in the FEIS: vegetation, raptors, other breeding birds, waterfowl, predatory mammals, small mammals and ungulates. The description of the biological habitat has not been updated for vegetation, birds, predatory mammals, small mammals, nor ungulates. Since operations began, most of the interactions with the project and wildlife have been within the predictions made in the original FEIS. Some information is provided related to waterfowl in the impact assessment section of this report, however there is no additional baseline information to describe the wildlife or wildlife habitat that will assist the interveners in the assessment of Phaser and BB Phaser Pit.

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

Please refer to the original FEIS* baseline reports for the complete description of the Biological Environment.

Some additional information was collected to support the fisheries offsetting, which is the primary impact associated with the expansion of Vault to include Phaser and BB Phaser Pit.

4.13.1 Vegetation, Birds and Wildlife

As reported in the original FEIS baseline terrestrial ecosystem report , in 2005, the study area boundaries of the RSA and LSA were revised to make them more suitable for long-term monitoring purposes. The RSA was reduced to include a 25 km radius circle around the main site and a 50 km wide corridor along the proposed all-weather access road route from the Meadowbank camp to Baker Lake (total area of 5,108 km^2). The mine LSA was expanded to include both a 5 km radius area centred on the main site and a 5 km radius area around the Vault site creating an elliptical shape (total area of 194 km2). As a result, the original terrestrial ecosystem component of the FEIS Addendum encompasses the Vault Area (including Phaser Pit and BB Phaser Pit).*

Descriptions of baseline terrain and soils conditions in the LSA and RSA were obtained from a literature review, and from results of vegetation baseline surveys and surficial materials studies that were conducted in the LSA. The most common vegetated Ecological Land Classification (ELC) unit in the mine site LSA was the Sedge community association (20%). Water was another very common ELC unit in the area (31%). In the access road LSA, Heath Tundra was by far the most common unit (29%), followed by Lichen, and Birch and Riparian Shrub. In the overall RSA, Heath Tundra made up 23%, followed by water (19%), Lichen (14%), and Birch & Riparian Shrub (13%).

During the baseline wildlife surveys, 61 terrestrial wildlife species (12 mammals, 49 birds) were recorded in the Meadowbank area. Barren-ground caribou (Rangifer tarandus ssp. groenlandicus) was the most common mammal species recorded. Caribou are present in considerable numbers during the fall, winter, and spring, but are very sparsely distributed in summer, indicating that the RSA was not used as a major calving ground. Based

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

on traditional and scientific knowledge of the area, caribou wintering in the RSA appear to originate from a number of different herds in the region. Other common mammal species recorded in the Meadowbank area included muskox (Ovibos moschatus), Arctic hare (Lepus arcticus), Arctic ground squirrel (Spermophilus parryi) and Arctic fox (Alopex lagopus).

Bird species observed in greater numbers than any other species during the surveys were snow goose (Chen caerulescens), Canada goose (Branta canadensis), Lapland longspur (Calcarius lapponicus), and horned lark (Eremophila alpestris). Other commonly observed breeding bird species were savannah sparrow (Passerculus sandwichensis), semipalmated sandpiper (Calidris pusilla), sandhill crane (Grus canadensis), and rock ptarmigan (Lagopus mutus). Sandhill crane, Canada goose, and snow goose were most common during the migratory period. Raptors, as well as all three species of jaegers, were recorded occasionally during baseline surveys.

A literature review was conducted for each of 29 wildlife species selected based on their abundance, conservation concern in the Meadowbank area, and interest to Baker Lake residents:

- *Ungulates: barren-ground caribou, muskox*
- *Carnivores: grizzly bear (Ursus arctos), wolf (Canis lupus), wolverine (Gulo gulo)*
- *Furbearers: Arctic fox, ermine (Mustela erminea)*
- *Small mammals: Arctic hare, Arctic ground squirrel, collared lemming (Dicrostonyx groenlandicus), northern red-backed vole (Clethrionomys rutilis)*
- *Waterfowl: greater white-fronted goose (Anser albifrons), snow goose, Ross' goose (Chen rossii), Canada goose, long-tailed duck (Clangula hyemalis)*
- *Raptors: rough-legged hawk (Buteo lagopus), gyrfalcon (Falco rusticolus), snowy owl (Nyctea scandiaca), peregrine falcon (Falco peregrinus tundrius)*

- *Ptarmigan: rock ptarmigan, willow ptarmigan (Lagopus lagopus)*
- *Shorebirds: semipalmated sandpiper, American golden-plover (Pluvialis dominica)*
- *Passerines: horned lark, American pipit (Anthus rubescens), white-crowned sparrow (Zonotrichia leucophrys), Lapland longspur, snow bunting (Plectrophenax nivalis).*

For a comprehensive description of the terrestrial environment please refer to the original FEIS* and supporting baseline studies. These are referred to in the impact assessment Section 4.21 of this document.

4.13.2 Fish and Other Aquatic Organisms

As reported in the original FEIS baseline terrestrial ecosystem report the Meadowbank project area lakes share similar physical, limnological, and chemical features that are consistent with soft-water, ultra-oligotrophic lakes found elsewhere in Nunavut and the Northwest Territories.*

The primary and secondary productivity of the project and reference lakes was similar among years. In general, biomass and/or density of lower trophic level groups (e.g., benthos, zooplankton) were similar to values from regional Arctic lakes. Differences in key features among lakes or years can be partly explained by differences in sampling methods, seasonal effects, and the heterogeneity of natural populations that overwhelm subtle trends or differences that might be evident among project area lakes. In general, abundance and biomass of lower trophic level biota appeared to be similar among lakes, or slightly lower in Third Portage Lake than in other lakes.

Fish species composition, mean size, and condition factor were similar for most lakes. Lake trout (Salvelinus namaycush) dominated all project, reference, and regional lakes and were characterized as being large, old, climax community populations, typical of oligotrophic, Arctic lakes. Round whitefish (Prosopium cylindraceum) and Arctic char (S. alpinus) were the next most abundant species in all lakes, with very small numbers of burbot

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

(Lota lota), ninespine stickleback (Pungitius pungitius), and sculpins (Cottus sp.). There are no spring spawning species such as suckers (Catostomus sp.) or Arctic grayling (Thymallus arcticus) within the regional study area. Metals concentrations of lake trout, round whitefish, and Arctic char were very low and similar among species in all lakes. Mercury concentration in tissue of lake trout and round whitefish was relatively low and typical of concentrations of fish from pristine lakes.

The magnitude of fish movement among project lakes is very small and opportunistic. Movement between lakes is constrained by the small, ephemeral channels that connect these headwater lakes that have relatively low discharge for their size. Fish movement between Third Portage and Second Portage lakes is especially difficult and is only possible during a short duration during spring freshet. Fish movement between Tehek Lake and Second Portage Lake is also very low, despite the excellent hydraulic connection between these lakes throughout the open water season. There is no surface hydrological connection between Phaser Lake and Vault Lake.

The Vault Lake area consists of Vault Lake and Phaser Lake. Vault Lake is small in size, compared to the Portage lakes, and is connected via a semi-passable channel to the larger Wally Lake. One fish was observed crossing this passage in baseline studies (Azimuth, 2005). Adjacent to Vault Lake, Phaser Lake is small and isolated, with a maximum depth of 4-5 m that was not included in the 2006 NNLP. However, based on current mine plans, this lake will now require dewatering, so was included here in all HADD calculations in AEM, 2012 - which included Phaser Pit) and an addendum to the NNLP found in Appendix D.

The fish populations of Vault and Phaser Lakes were examined briefly in a 2004 study for the BAEAR (Azimuth, 2005) [*]. Both lakes were found to contain small populations of lake trout and round whitefish (~100 fish were estimated to inhabit Phaser Lake). Some additional information was collected to support the planning for Phaser Lake and the resulting fisheries offsetting, which is the primary impact associated with the expansion of the Vault

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

Pit to include Phaser and BB Phaser Pit along with water quality monitoring. This information is presented in Appendix D and E.

4.14 Description of Socio-Economic Environment

The original Meadowbank Mine (including mining of the Vault deposit) was the subject of an impact assessment that included socio-economic and cultural components that was conducted under the direction of the Nunavut Impact Review Board using the process established under Part 5 of the Nunavut Land Claims Agreement. The Final Environmental Impact Statement (FEIS) for this project was submitted in October of 2005, culminating in the NIRB issuing Project Certificate #004 for the Meadowbank Gold Mine in December of 2006. This assessment identified Baker Lake as the primary area of socio-economic impacts resulting from the Project. It is the closest community to the project site, and receives preference for employment and business opportunities under the terms of an Inuit Impact Benefit Agreement (IIBA) between AEM and the Kivalliq Inuit Association (KIA).

The proposed Vault expansion to include BB Phaser and Phaser Pit will not materially change the socio-economic and cultural effects that have and continue to be observed in Baker Lake and other Kivalliq communities resulting from the Meadowbank Mine. Overall these effects have been viewed as being net positive to the residents of Baker Lake and the Kivalliq region of Nunavut (that is the positive effects have been viewed as being of greater importance than the negative effects). However, this proposed extension will allow mining and milling activities at the Meadowbank Mine to continue for approximately one additional month beyond the current planned end of mining in late 2017. Consequently the proposed extension will extend these effects (both positive and negative) for one additional month.

In October of 2005 AEM submitted to the NIRB a document entitled Meadowbank Project – Baseline Socioeconomic Report as a supporting document to the Final Environmental Impact Statement (FEIS) for its Meadowbank Gold Mine Project*.

This report described the components of the socio-economic environment and the processes affecting them, as they existed without the Project and was applied to justify the selection of VSECs and to serve as a baseline against which the potential impacts of the Project were then measured. It presented baseline data on the seven Kivalliq Region communities on a community-by-community basis on such components as:

- Demographic Profile;
- Economy;
- Education and Training;
- Community Health and Wellness;
- Social Issues such as shortage of housing, single parent-families, accidents, crime and language;
- Housing;
- Community Services and Infrastructure; and
- Governance

Baseline information on archaeological and cultural resources identified in the Project area were described in a separate supporting document to the October 2005 FEIS entitled Meadowbank Project – Baseline Archaeological Report* which can be obtained from the NIRB ftp site at the following link:

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

This baseline report provides information on archaeological, cultural, heritage, and burial sites, as well as sites identified by Elders as being sacred or spiritual places (e.g., Aglinaqtut). Each site was described and delineated on a map, using, where appropriate, the Borden system of designation. This baseline document places the identified sites within the context of a regional overview of prehistory and history for this area.

Baseline information on traditional land use in the Project area was described in a separate supporting document to the October 2005 FEIS entitled Meadowbank Project – Baseline Traditional Knowledge Report* which can be obtained from the NIRB ftp site at the following link:

These three documents provided the rationale for the selection of communities for which baseline data was provided and described the interactions between the socio-economic and biophysical environments, including the roles of the land- and wage-based economies and the nature of the mixed economy of the North.

In the original socio-economic impact assessment of the Meadowbank Project the following Project specific VSECs were identified based on the identification of key issues by the community of Baker Lake and other project stakeholders, and with understanding of socioeconomic status of the region from baseline studies:

- Employment and training;
- Business opportunities;
- Traditional ways of life;
- Individual and community wellness;
- Infrastructure and social services; and
- Sites of heritage.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

The 2005 FEIS description of the socio-economic environment in Baker Lake and in the Kivalliq Region is still valid for the purposes of assessing the new potential impacts that will or may accrue from the proposed Vault expansion to include BB Phaser and Phaser Pit.

It is acknowledged that the socio-economic environment in Baker Lake has evolved in the intervening ten year period.

An update of the socio-economic baseline conditions in the Kivalliq Region (including Baker Lake) was provided by AEM to the NIRB in Volume 9 of the Meliadine Project FEIS submitted to the NIRB in May of 2014 and accessible from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/11MN034-AEM%20MELIADINE/2-REVIEW/09-FINAL%20EIS/FEIS/VOL%209/Main/

and by AREVA Canada in Volume 9 (specifically in Tier 3 supporting document 9A) of the Kiggavik Project FEIS submitted to the NIRB in September of 2014 and accessible from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/09MN003-AREVA%20KIGGAVIK/2-REVIEW/09-FINAL%20EIS/03-FEIS/03-TECH%20APPENDICES-Teir%203/141001-09MN003-Vol%209-9A%20Socio%20Economic%20Bsln-IA2E.pdf

In aggregate these documents provide a comprehensive assessment of the socio-economic environment upon which the new effects can be measured for the proposed Vault Pit expansion which is the subject of this addendum.

4.15 Spatial Boundaries

The spatial boundaries for assessing the cumulative effects on a VEC or VSEC were set at the maximum range or distribution of the potential cumulative effects in the original FEIS. Thus the spatial boundaries are discussed

in the original FEIS* considered the area of BB Phaser and Phaser Pit, water management of Phaser Lake and the 3.94 ha of mixed bolder shoreline and primarily tundra heath that will be consumed by the proposed pit development of Phaser Pit and BB Phaser Pit. It considered impacts of the project on Air Quality and Noise, Physical, Terrestrial and the aquatic ecosystem. Therefore, the spatial boundaries discussed in the FEIS do not materially change for socio-economics and the terrestrial environment from the original FEIS which encompassed this area. The original spatial boundaries for the water quality and terrestrial environment encompass Phaser Lake; go to the following figure 4.38 in the original FEIS:

ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/FEIS%20Part1%20Report/08Figures/4.38.pdf

However, the short term impacts due to dewatering of Phaser Lake were not considered in the original FEIS, therefore the focus of the FEIS Addendum and are discussed in greater detail in subsequent sections.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

4.16 Temporal Boundaries

The original FEIS defined the temporal boundaries of the mine to include two years of construction, 8 to 10 years of operation, two years of closure and post closure activities that could extend 25 years after closure depending on regulatory requirements*. Construction of the mine site began in 2008 and commercial production began in early 2010 (i.e. 2 years of construction, as was anticipated in the FEIS). The Meadowbank mine is scheduled to complete all mining activities by Q3-2017, with the exhaustion of its known ore reserves, with milling of all stockpiles to be completed several months later, or approximately 8 years of operations.

Consequently, timing of sourcing additional ore reserves that could be milled at the Meadowbank mine is of critical interest to Agnico Eagle. As a result, consideration has been made to mine additional resources near the Meadowbank mine and recent life of mine plans have included Phaser Pit and BB Phaser Pit operations, which will extend the Meadowbank operations by approximately 1 month. This is within the 8 – 10 years previously assessed in the original FEIS and therefore is not further discussed in the FEIS Addendum.

4.17 Data Acquisition Methodology and Documentation

Data acquisition and analysis are consistent with the original FEIS*. The results presented are reliable and the analysis is thorough, sound and repeatable.

4.18 Impact Assessment Methodology

The proposed Vault Expansion to include Phaser Pit and BB Phaser Pit will interact with the natural and human environment of the area in both time and space. The following sections of the FEIS addendum assess the potential environmental impacts associated with the pits, and the proposed mitigation measures for these impacts are also provided. The detail provided in the description of the existing environment, environmental

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

impacts, and mitigation are appropriate for the type, scope, and scale of this proposed project and NIRB screening document that has been requested.

The assessment approach is based on ecological, cultural, and socio-economic principles and environmental best practice. Key elements of the assessment methods and approach include the following:

- determining links between the proposed operational expansion to include Phaser Pit and BB Phaser Pit and valued environmental component;
- determining project specific effects;
- outlining mitigation measures to minimize impacts;
- determining if impacts are left after mitigation in place; and
- proposing monitoring and follow-up.

For the purposes of this environmental assessment, the temporal boundary for construction, operation, and closure of the road is an additional 1 month of mining which is within the 9 -10 years of mining previously evaluated in the original FEIS. The potential effects and the predictions of impacts generated by the proposed pit expansion, along with the proposed mitigation and monitoring strategies are summarized in the subsequent text and a detailed matrix type assessment consistent with the original FEIS* is presented in Appendix C.

4.19 Phaser Pit and BB Phaser Pit Impact Assessment

The original Meadowbank FEIS* was completed to determine the potential effects that the various activities of the project would have on identified Valued Ecosystem Components (VECs) and Valued Social and Economic Components (VSECs). Predictions were outlined in the FEIS and supporting documents. Impacts were predicted for the Vault area; however these predictions did not include the Vault expansion to include Phaser Pit

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

and BB Phaser Pit that will primarily impact Phaser Lake. As previously presented, although the new impacts are associated with relatively small changes to the mine plan (i.e. tonnes moved, waste rock storage, mining duration, etc.), and thus most of the impact predictions made in the original FEIS that relate to the Vault Area remain valid. The proposed Vault expansion to include Phaser and BB Phaser Pit will maintain existing open pit operations in the Vault Pit area consequently no new mining equipment, and/or mining and milling infrastructure is required or planned. Existing waste rock storage facilities will be used.

The following section provides a discussion of the extent to which the proposed expansion will affect the original FEIS impact predictions on previously identified valued ecosystem components (water quantity, water quality, air quality, noise, terrestrial wildlife and fish/fish habitat) and presents a discussion of the potential additional impacts generated by the Phaser and BB Phaser Pit operations in Phaser Lake. The potential effects and the predictions of impacts generated by the proposed pit expansion, along with the proposed mitigation and monitoring strategies are summarized in the text below based on evaluations presented on matrix type assessments based on Appendix C evaluations.

4.19.1 Air Quality and Noise

The generation of dust and emissions was identified as a potential effect generated by the mine activity in Vault Pit Area and hauling between the Vault Pit and the Meadowbank mill. There is a small increase in overburden stripping, excavation and mine activity in the Vault expansion to include BB Phaser Pit and Phaser Pit, but the increase is within the original project footprint. However there are no additional mining equipment or haul trucks required or planned for this expansion and existing dust mitigation plans will be followed (i.e. a dedicated water truck is presently in use around the Vault operations). The related changes to air quality and noise is insignificant and the dust control and noise abatement strategies will apply to the expansion; therefore the BB

Phaser and Phaser Pit operations is considered unchanged from the predictions made in the original FEIS* for air and noise.

4.19.2 Terrestrial Ecosystem

Seven VECs were considered part of the terrestrial ecosystem in the original FEIS: vegetation, raptors, other breeding birds, waterfowl, predatory mammals, small mammals and ungulates.

4.19.2.1 Vegetation

The loss of vegetation and vegetation degradation were identified in the original FEIS as a potential effect as a result of operations at Vault Pit. Pit stripping is primarily within Phaser Lake, thus the direct loss of vegetation is not expected to significantly change from the original predictions. It is anticipated that only 3.94 ha of terrestrial vegetation is lost as compared to 867 ha which were originally approved. Current mine site ELC unit losses amount to 775.71 ha of lost habitat, which is a difference of 91.13 less than predicted in the original FEIS (AEM, 2015, wildlife monitoring report). As a result, this additional loss of lichen-rock and Heath tundra habitat is within the original impact predictions.

Monitoring and mitigation strategies remain unchanged during Phaser Pit and BB Phaser Pit operations; the original predictions for impacts to vegetation are still applicable and are not expected to significantly change due to the Vault expansion, which is primarily in Phaser Lake.

4.19.2.2 Raptors, other breeding birds and waterfowl

The potential effects on raptors, birds and waterfowl were identified in the FEIS due to Vault Pit mining activity. Specifically, loss and disturbance of foraging habitat, mortality due to collisions with traffic, reduction in habitat use due to noise, habitat degradation due to dust and emissions, and potential for increased contaminant loading in prey. Similar effects on raptors and breeding birds are not expected to significantly be impacted.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

None of these potential effects have been observed to date during the initial mining of Phaser Pit and BB Phaser Pit.

Despite the temporary loss of Phaser Lake waterfowl habitat, there are no significant changes predicted due to waterfowl habitat loss as only 1 water bird (1 common loon was observed in 2005 on Phaser Lake, pers. comm. Martin Gebauer on May 2, 2014) has been observed occupying Phaser Lake. Similar monitoring and mitigation strategies will be implemented as originally proposed and currently applied; the original predictions for impacts to raptors, other breeding birds and waterfowl are still applicable and are not expected to significantly change due to the expansion into Phaser Lake.

4.19.2.3 Mammals and Ungulates

The potential effects on mammals and ungulates were identified in the FEIS due to Vault Pit mining activity. Specifically, loss and disturbance of foraging habitat, mortality due to collisions with traffic, reduction in habitat use due to noise, habitat degradation due to dust and emissions, and potential for increased contaminant loading in prey. None of these potential effects have been observed to date during the initial mining of the Vault Pit. No significant residual impacts on mammals and ungulates were anticipated; this remains unchanged with the additional operations of BB Phaser Pit and Phaser Pit.

4.19.3 Physical Environment

4.19.3.1 Surface Water Quantity

The potential effects on surface water quantity due to Vault Pit mining activity were identified in the original FEIS. Dewatering and mining activities at Vault Pit were predicted to alter Phaser Lake water quantity (i.e. changes in the Vault Lake were predicted to increase the volume of water over time in Phaser Lake due to freshet and rain events). As a result, a water management strategy was developed which required that Phaser Lake water level be monitored and if deemed necessary, pumped to Turn Lake, which would require the monitoring of sedimentation and volume/ water level changes in Turn Lake, an adjacent watershed. Currently, the plan is to pump water into Vault Attenuation pond and discharge as needed, thus maintaining the watershed volumes

within the Vault Lake watershed[2]. This is actually an improvement to the original plan as Turn Lake will not have any potential impacts as no water will be pumped to this water body.

Similarly, the revised Vault Pit Expansion plan also maintains Phaser Lake historical drainage within the Vault Lake watershed. AEM proposes to begin dewater Phaser Lake in Q2 of 2016 while completing a fish out in Q3, in advance of mining in 2017. This dewatering will take less than 3 months (volume of Phaser Lake is estimated at 700,000 m^3). Water is proposed to be transferred into the Vault Attenuation pond and discharged through a diffuser into Wally Lake. Following dewatering of Phaser Lake, it is expected that no additional impacts to the watershed will occur during operations than what was originally predicted in the FEIS for the Vault Area. By directing water in Phaser Lake to Vault Attenuation and ultimately discharging it into Wally Lake, no changes in water levels in Wally Lake, Turn Lake and Drill-trail Lake are expected.

AEM believes dewatering of Phaser Lake is within the scope of the original FEIS and is approved as per the NWB Type A Water Board License Part D Item 16. AEM is approved to dewater lakes and will follow the dewatering strategies outlined in AEM (2010) to minimize potential effects on the receiving water levels due to dewatering. Mitigative strategies and monitoring related to Vault Lake (i.e. monitoring lake water level in Wally Lake) identified in the FEIS will be applied to dewatering Phaser Lake. Increased quantity of in-pit seepage is not expected to significantly increase and following dewatering, there is only a minor interference in surface water drainage of the Phaser Lake watershed. As a result, the proposed expansion of Vault Pit into Phaser Lake will similarly mitigate any of the originally predicted effects to water quantity in the FEIS; there are no significant residual impacts on water quantity due to the proposed Vault expansion to include BB Phaser and Phaser Pit.

4.19.3.2 Surface Water Quality

Changes to surface water quality due to dewatering, operations (increased dust and fuel spills) and waste rock storage were considered in the original FEIS and predicted for the Vault Operation in the Physical Environmental

[2] This was considered as an option in Golder (2005)- Meadowbank Gold Project Mine Waste and Water Management (Doc #500 and 485)

Impact Assessment (Cumberland 2005) to have potential effects on water quality*. Best management practices will be implemented and mitigation strategies remain unchanged from the original FEIS assessment related to operational expansion of Vault Pit into Phaser Lake. In addition, the FEIS identified concerns related to surface water quality of run-off from the Vault waste rock storage facility potentially impacting Phaser Lake (throughout operation and closure) and Vault Lake (during closure). Water quality predictions for runoff of Vault Rock Storage Facility indicate good water quality. Vault Pit Expansion water will be collected in the sump and pumped to the Vault Attenuation pond. Surface water that will accumulate in the Vault Pit Expansion will be directed towards the Vault Attenuation pond and water quality will be monitored prior to discharge. This remains unchanged from what was proposed in the original FEIS.

During dewatering of Phaser Lake, there is a potential for the release of TSS into Wally Lake during discharge. AEM intends to transfer Phaser Lake water into the Vault Attenuation pond, treat if needed (for TSS removal) and discharge the water into Wally Lake through the diffuser in accordance with NWB Type A water License Part F Item 3. AEM is approved to dewater lakes and will follow the dewatering strategies outlined in AEM (2010) to minimize potential effects on the receiving water levels due to dewatering. AEM believes dewatering of Phaser Lake is within the scope of the original FEIS, as per NWB Type A Water Board License Part D Item 16. As a result, as per the original FEIS, there are no significant predicted residual impacts on water quality due to the proposed Vault Pit Expansion.

4.19.4 Fish and Fish Habitat

Prior to the acquisition of the mining rights for Meadowbank by AEM in 2007, Cumberland Resources Ltd. (Cumberland) had begun baseline studies to begin the permitting process for the alteration, disruption or destruction of fish habitat, Cumberland obtained a Nunavut Impact Review Board (NIRB) Project Certificate (No 004 – dated December 30, 2006), which required Fisheries and Oceans Canada (DFO) approval as part of the Final Environmental Impact Statement. Subsequently, a Fisheries Authorization from DFO (NU-03-0191) for the

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

main portion of the mine site (Second and Third Portage Lakes) was provided to AEM in 2008 following DFO approval of the original NNLP with amendments (Cumberland, 2006; Azimuth, 2007). In 2012, AEM submitted a revised plan that described the impacts to fish habitat that were expected to occur, and the habitat compensation measures (under the new Fisheries Act, now referred to as offsetting) that would be implemented to re-gain the lost habitat that included losses within the Vault Lake area. This included conceptual plans to mine Vault Pit expansion, thus included Phaser Lake habitat offsetting.

Following the example of similar mining projects in the north, the original NNLP used a modified Habitat Evaluation Procedure (HEP) to calculate losses and account for them with gains in habitat units. In 2010 and 2011, AEM revisited the original NNLP and addendums, and found discrepancies between the number of habitat units described in the plan and those in the Authorization granted by DFO. Since these discrepancies could not be accounted for by AEM, Cumberland consultants and DFO, the development of a new NNLP for the Meadowbank site was proposed by AEM and approved by DFO in 2012 with revised authorizations received in 2013.

The entire NNL Plan (AEM, 2012) is provided in Appendix C of this report (which was reviewed thoroughly by DFO (in consultation with Dr. Ken Minns), and uses a Habitat Evaluation Procedure which was approved by DFO for use at the Meadowbank and Meliadine mine sites. Because the Vault Expansion was not considered part of the life of mine until recently, and due to the fact that it was not part of the Project Certificate, AEM and DFO did not include Phaser Lake in the Vault Lake Area authorization as it was not screened by NIRB in the original FEIS. However, all of the calculation of losses and gains associated with the loss of habitat due to mining of Phaser Pit in Phaser Lake have been accounted for in AEM (2012) and an Addendum of AEM (2012) to account for the losses in Phaser Lake due to mining BB Phaser Pit is provided in Appendix D.

The footprint of mining activities in the Vault Lake Area (which includes Phaser Lake) is shown in Figure 4.21.1 and in the NNLP addendum (Appendix D), including the location of pits, roads and dikes. Fish habitat losses in the Vault Lake Area have occurred in Vault Lake and are proposed for Phaser Lake. Most of Vault Lake was

dewatered in 2013 and mine operations have started in the Vault Pit. The shallow passage between Vault Lake and the adjacent Wally Lake was diked in Q1 of 2013 to provide hydraulic separation for these otherwise isolated lakes. With DFO approval, a fish salvage program was conducted prior to and during dewatering in Vault Lake. With DFO approval, AEM proposes to do the same fish salvage program of Phaser Lake which will aim to transfer as many fish as possible to Wally Lake or nearby waterbodies, helping to alleviate temporary losses in fish productivity in the area.

Compared to the Portage Lakes and Vault Lake (94 ha), Phaser Lake is a small offline waterbody (25 ha). Vault Lake was connected via a semi-passable channel to the larger Wally Lake. One fish was observed crossing this passage in baseline studies (Azimuth, 2005). Adjacent to Vault Lake, Phaser Lake is small and isolated, with a maximum depth of 4-5 m. The fish populations of Vault and Phaser Lakes were examined briefly in a 2004 study for the BAEAR (Azimuth, 2005), and again in 2012 (AEM, 2012). Phaser Lake was found to contain populations of lake trout and round whitefish. There is no known sport fishing occurring in Phaser, no traditional Inuit fishing, and given that Phaser is a disconnected lake, it does not support a commercial fishery.

After mining, Vault Pit will connect Vault Lake to Phaser Lake, the Pits and former lake beds will be reflooded and the Vault Dike will be breached. Currently, Phaser Lake has limited overwintering habitat. By connecting Phaser Pit to a shallow pit additional overwintering habitat will be available in one large continuous lake that extends from Wally to Phaser Lake. Once Vault and Phaser lakes are hydraulically and chemically stable and meet water quality requirements, the Vault Dike will be removed, allowing fish from Wally Lake the ability to access Vault and Phaser Lakes (AEM, 2012). Improvement of the connection to Wally Lake from Vault Lake by deepening the channel inside the Vault Dike to a depth of at least 3 m will allow fish passage to the Phaser, Vault and Wally Lake system year-round post closure.

Overall, based on the NNLP under post closure scenarios, 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 and enhancements will provide a net gain in available fish habitat in Phaser Lake. As a result, the

offsetting of fish habitat losses proposed within the Vault expansion to include BB Phaser and Phaser Pit is consistent with the original FEIS and has been adequately accounted for in the revised offsetting and NNLPs.

4.19.5 Archaeology

No new archaeological sites were identified within the Vault Expansion area (FMA Heritage Inc., 2010), as a result the original predicted impacts in the FEIS remain unchanged.

4.19.6 Cumulative Effects

Given the insignificant change in operations (waste tonnage, ore tonnage and ounces), footprint and offsetting fisheries habitat/mitigation for dewatering, and the fact that the original FEIS accounted for a 8 -10 year life of mine, the cumulative effects predicted in the original FEIS remain unchanged.

4.19.7 Exploration Programme

There are no additional exploration programs planned in the Vault Pit, BB Phaser or Phaser Pit area.

4.19.8 Temporary Closure, Final Closure and Reclamation Programmes

The proposed Vault expansion to include BB Phaser and Phaser Pit will be reclaimed as part of the larger Vault Pit complex. It will ultimately be flooded as laid out in Section 3.3.5 in the Meadowbank Interim Closure and Reclamation Plan that was submitted to the NWB in 2014 and is accessible from the NWB ftp site at the following link:

ftp://ftp.nwb-oen.ca/1%20PRUC%20PUBLIC%20REGISTRY/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEA0815%20Agnico/1%20APPLICATION/2015%20Renewal/140805%202AM-MEA0815%20B14%20Interim%20Closure%20and%20Reclamation%20Plan%20Version%202%20Jan2014-ILAE.pdf

The closure concepts for Vault Pit will not significantly change from what was documented in the FEIS. Waste rock from this pit expansion will be stored in the existing Vault Waste Rock Storage facility and will be reclaimed as part of this facility. Provisions for reclamation of the Vault open pit and all associated facilities have been addressed under the current Meadowbank Type A Water License, including provisions for reclamation security. The expansion of the Vault Pit into the Phaser Lake area will not materially affect these reclamation plans and provisions given the relatively small are of the proposed expansion. Vault Pit, BB Phaser Pit and Phaser Pit will be re-flooded. Flooding of Vault Area is anticipated to begin in 2020 and will include Phaser Lake. Phaser Lake volume has been estimated at 700,000 m^3 (SNC, 2013); although the volume of the Vault expansion has not been estimated, the total area of Phaser Lake is presently 25.05 ha and the pit area will increase the area of Phaser Lake by only 3.94 ha, therefore reflooding is not expected to significantly change, nor is the timing of the reconnection of Phaser and Vault Lake to Wally Lake. Geochemical predictions during the FEIS (and to date) indicated that the Vault Waste Rock will not require capping and is expected to freeze; this remains unchanged with the addition of BB Phaser Pit and Phaser Pit.

As previously stated, it is expected that under post closure scenarios, the improvement in the fish habitat of Phaser Lake and proposed enhancements will provide a net gain in available fish habitat in Phaser Lake. Phaser Lake currently has limited overwintering habitat. By connecting Phaser Pit to a shallow pit additional overwintering habitat will be available in one large continuous lake that extends from Wally to Phaser Lake. Once Vault and Phaser lakes are hydraulically and chemically stable and meet water quality requirements, the Vault Dike will be removed, allowing fish from Wally Lake the ability to access Vault and Phaser Lakes (AEM, 2012). Improvement of the connection to Wally Lake from Vault Lake by deepening the channel inside the Vault Dike to a depth of at least 3 m will allow fish passage to the Phaser, Vault and Wally Lake system year-round post closure. Details of the Vault Pit Expansion into Phaser Lake will be included in the Final Closure Plan.

Temporary closure would be addressed using the same techniques and plans as laid out for the Vault Open Pit as described in the above referenced Interim Closure and Reclamation Plan.

4.19.9 Biological Diversity

Although the project will have localized effects on a very small terrestrial area and Phaser Lake, the population viability of all species currently located in the local study area (LSA) is not expected to be impaired. No local extirpations or local changes in biodiversity are expected because: (1) the project footprint is small; (2) all species found within the LSA that may be impacted by the project are also widespread in the Regional Study Area (RSA); (3) no critical habitat for rare and endangered species or species of management concern has been documented; and (4) a comprehensive management plan will ensure that any impacts to local plant and animal species are minimized. Biodiversity and richness of local and regional flora and fauna will be maintained as predicted in the original FEIS*.

4.19.10 Social, Economic and Cultural Components

The original Meadowbank Mine (including mining of the Vault deposit) was the subject of an impact assessment that included socio-economic and cultural components that was conducted under the direction of the Nunavut Impact Review Board using the process established under Part 5 of the Nunavut Land Claims Agreement in 2004 thru 2008. This assessment identified Baker Lake as the primary area of positive socio-economic impacts resulting from the Project. It is the closest community to the project site, and receives preference for employment and business opportunities. Some benefits also accrue to individuals and business elsewhere in Kivalliq Region and Nunavut.

The proposed extension of the Vault Pit into Phaser Lake will not materially change the socio-economic and cultural effects that have and continue to be observed in Baker Lake and other Kivalliq communities resulting from the Meadowbank Mine. Overall these effects have been viewed as being net positive to the residents of Baker Lake and the Kivalliq region of Nunavut (that is the positive effects have been viewed as being of greater importance than the negative effects). This proposed extension will allow mining and milling activities at the Meadowbank Mine to continue for approximately one additional month beyond the current planned end of mining

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

in late 2017. Consequently the proposed extension will extend these effects (both positive and negative) for one additional month.

In the original socio-economic impact assessment of the Meadowbank Project the following Project specific VSECs were identified based on the identification of key issues by the community of Baker Lake and other project stakeholders, and with understanding of socioeconomic status of the region from baseline studies:

- Employment and training;
- Business opportunities;
- Traditional ways of life;
- Individual and community wellness;
- Infrastructure and social services; and
- Sites of heritage.

A comparison of observed outcomes versus predicted outcomes (as predicted in the October 2005 Meadowbank FEIS) for both positive and negative perceived impacts for these VSECs was included as Table 12.10 and 12.11 in the 2014 Meadowbank Project Certificate Annual Monitoring report submitted to the NIRB in March of 2015. These provide a quick update on how the Meadowbank Project has impacted these socio-economic VSECs. The Vault Pit expansion into the Phaser Lake area will continue the observed impacts as presented within these tables for at least one additional month. For ease of the reader Table 12.10 and 12.11 from the 2014 Annual Report have been reproduced here:

Table: 4.19.10.1: Socio-Economic VSECs – Positive Impacts as compared to FEIS Predictions (Table 12.10 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Positive impacts as compared to FEIS predictions (2011-2014)
Expenditure of $23 million annually over 10 years	Employment and contracting reporting	Moderate, relative to size of regional economy	*Benefits delivered for Nunavut-based businesses:* As of September 1, 2011, 52.2% ($479 million) of total expenditures were attributed to Nunavut-based companies, an increase from $237.4 million in 2010. In 2012 this increased to 58.8% of total expenditures, and all Nunavut-based vendors for AEM in 2012 were at least 51% Inuit-owned businesses. Of the $479 million captured by Nunavut-based companies in 2011, $159 million (33%) went to Baker Lake-based suppliers; this is a significant increase from $17 million in 2009. In 2012, 30.8% of expenditures were allocated to businesses located in Baker Lake, an overall increase since 2010 (26.5%: $62.8 million) but slight decrease from 2011 (33%: $159 million). The majority of these dollars spent in Baker Lake were captured by Baker Lake Construction and Supply, Peter's Expediting, and Arctic Fuel; these three companies took in 22.4% of AEM expenditures in 2011.	The indirect influence of mining contracts and the increase in traffic through Baker Lake has infused significant new money into the town's economy. As with the individual impacts of direct employment, these benefits have been felt unevenly across the community. When construction for the Meadowbank Mine began, three main community businesses signed large contracts with Agnico Eagle and have generated substantial revenues In the context of high economic growth spearheaded by mineral development, these data further highlight the significant potential for further business growth and development in Baker Lake and the Kivalliq region. AEM has developed a program, the Building People Initiative, to assist Kivalliq business development in order to meet their market needs. They also launched the AEM Inuit Business Opportunities Initiative in April 2010 to assist Inuit businesses seeking contract opportunities through Meadowbank.
Employment of at least 60 workers	Employment reporting, by ethnicity, point of	High, at the individual level and relative to size Baker Lake labour	*AEM statistic*:	Direct employment is the most substantial impact from the mine

Table: 4.19.10.1: Socio-Economic VSECs – Positive Impacts as compared to FEIS Predictions (Table 12.10 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Positive impacts as compared to FEIS predictions (2011-2014)
	hire, gender etc.	force	As of the end of August 2011, 37.2% of new permanent hires for the year were Inuit beneficiaries, representing an increase of 57 individuals since 2010. Most of the Inuit beneficiary employees at Meadowbank have been from Baker Lake; at the end of 2014, there were 155 employees from the Hamlet. The overall number of Inuit employed at Meadowbank has remained steady since production began, with 249 in 2011 (36.8% of the workforce), 247 in 2012 (31.4% of the workforce) and 269 in 2014 (34.13%). Most of these new Inuit beneficiary hires in 2011 were men – 229 men compared with 60 female. Overall the percentage of Inuit female employees was 20.8% in 2011, which increased to 35.1% in 2012, demonstrating a relatively low but growing representation of women. In 2012, 31% of the Baker Lake Inuit workforce was female and 69% was male. Of the contract workforce in 2011, a small number (5.4%) were Inuit beneficiaries, equal to 25 of 457 workers.	With the arrival of the mine, anyone who wanted to be employed could be. Residents highlighted the fact that before the mine, many people in Baker Lake were unable to access employment, even with a high school diploma.

Table: 4.19.10.1: Socio-Economic VSECs – Positive Impacts as compared to FEIS Predictions (Table 12.10 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Positive impacts as compared to FEIS predictions (2011-2014)
Goods and service contracts for local businesses	Contract reporting, by type of good and location and status of business	High for individual businesses, but overall moderate relative to the size of the regional market	See Above – Potential Impact "Expenditure of $23 million annually over 10 years"	See Above – Potential Impact "Expenditure of $23 million annually over 10 years"
Overall increased economic activity, including indirect and induced effects Increased individual, family and community wellness	Government economic indicators	Moderate given importance accorded to developing and diversifying the economy of the region High, on the assumption that overall, increased income is correlated with increase wellness	*Tax-filers with employment, SEMC:* The 2009 SEMC Report stated that "[t]he Kivalliq has not seen economic growth in the wage economy of [this] magnitude since first contact." A need for Kivalliqmiut to adapt to these rapid changes in order to benefit from regional economic growth is recognized. Median annual employment income in Baker Lake has increased since construction began for the Meadowbank Mine: from $12,600 in 2004 to $22,020 in 2009	With employment at Meadowbank, salaries range between $20 and $40 per hour. For many, this new income has enhanced their quality of life by offering a reliable means to afford food, hunting equipment, and consumer goods, such as vehicles and entertainment systems. As a result of increased demand, a greater abundance and variety of foods are available at the community grocery stores. While there are still families asking for Inuit food over the local radio, the number of people waiting in line for the monthly food bank has decreased substantially. This was noted as being the most positive impact of the mine. When employment was very low, many residents accumulated considerable debt with the housing corporation, the power corporation, the Northern, and credit cards, and they are now paying that back. Expectations of financial support to younger siblings or other family members places an added strain on some workers, who have their own financial obligations. For those without extensive

Table: 4.19.10.1: Socio-Economic VSECs – Positive Impacts as compared to FEIS Predictions (Table 12.10 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Positive impacts as compared to FEIS predictions (2011-2014)
				debt, homeownership has become an attainable goal, though the community lacks legal and banking services that would enable easier navigation of these processes.
Increased capacity of local labour force to participate in project and in formal economy more generally	Training and human resource reporting, government economic indicators, possibly special purpose studies	High particularly at the individual level and because capacity building contributes to life long success in formal wage economy.	AEM statistic. The majority of the Nunavummiut workforce is in unskilled and semi-skilled positions at the mine. At the end of August 2010, there were 8 Inuit working in skilled positions and at the end of 2014 there were 35 inuits. From 2010 to 2010, the trend has changed with the establishment of the Kivalliq Mine Training Society (towards which AEM has contributed funding) and the addition of more on-site training and apprenticeship programs, allowing for greater income capture among the Inuit workforce accessing these higher-paying jobs. At the end of August 2011, 58% of training offered by AEM was provided to Inuit employees, an increase of 3,740 hours since 2010. For 2012, 46% of the training offered was provided to Inuit employees, and 85% of this training offered was general and specific job training (i.e., for career advancement). There are a number of Inuit employees who started their employment with AEM in unskilled positions and have since advanced through	These data suggest that Baker Lake is taking advantage of training initiatives offered at Meadowbank, such as the on-site haul-truck simulator purchased in 2010 and the “Career Path” program for driver advancement

Table: 4.19.10.1: Socio-Economic VSECs – Positive Impacts as compared to FEIS Predictions (Table 12.10 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Positive impacts as compared to FEIS predictions (2011-2014)
			training to skilled level positions. By the end of August 2011, 75% of the Baker Lake Inuit employees were working in skilled positions, and Baker Lake has the highest proportion of Meadowbank employees from Kivalliq working such jobs. In comparison, the average for across Kivalliq is 66.8%, though only Baker Lake and Rankin Inlet have a representation of more than 62% employment in skilled positions.	
Some increase in interest in school on part of youth	Government social indicators, consultation results	Moderate as project initiatives alone will not suffice but will only contribute to the ongoing effort although for any specific individual the significance could be high.	*Nunavut Bureau of Statistics:* Throughout Kivalliq, the rate of high school graduates has been increasing, and this can be attributed partly to population growth While the rising number of high school graduates is promising, graduation rates further demonstrate an increase in the percentage of 17 to 18 year-olds in Kivalliq graduating from high school, with a high of 44% in 2010, more than double the 21% graduation rate in 200	Since the opening of the Meadowbank mine, many informants have observed decreasing dropout rates and higher graduation rates, which is encouraging for the future of Baker Lake. Some parents said that students now are more focused on graduating because they have something concrete to have as a goal for employment

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
Reduced access to traditional land	Consultation results	Moderate, for any specific individual although overall number of users is likely to be limited	Interview	Many reported an increase in the number of trips on the land by those with employment-generated monies used to buy equipment, some residents suggested that the stress associated with life in a community, and increasingly busy work and school schedules, limit the length of time that individuals can spend on the land
Reduction in traditional activities including harvesting	Government social indicators, consultation results, possibly special purpose studies	Low negative, as less traditional activity is more likely to be choice rather than lack of opportunity and potentially positive at least for some individuals	Interview	A number of community members are concerned with the influx of money, Southern material goods and technologies that are providing "too many distractions", and limiting healthy socializing and volunteerism in the community. There is concern that growing individualism and materialism are displacing Inuit values and the influence of elders. Mine impacts on harvesting activities were discussed more frequently than general environmental impacts, and seem to be the most important environmental concern for Baker Lake residents. For some people, the two weeks off provide a chance to recover from the 12-hour shifts at camp. Some reported being too tried to participate in family or community events, including hunting and land-based activities during their two weeks

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
				off. However, others reported that they enjoyed using this time specifically for harvesting, using the mine road to access caribou grounds, and enjoying quality time with their family

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
Undervaluing traditional ways and loss of knowledge	Government social indicators, consultation results	Low as project initiatives alone will not suffice but will only contribute to other ongoing efforts in support of traditional ways of life.	*NBS indicator* In Baker Lake in 2011, 1,170 of 1,865 local residents reported Inuktitut as their mother tongue, or first language learned and still understood. This can be compared with 645 residents who indicated English to be their mother tongue (ibid). In terms of the language spoken most often at home in 2011, 525 Baker Lake residents indicated this to be Inuktitut, compared with 1,320 who speak English most often at home (NBS 2012). The more frequent use of English at home over Inuktitut has been increasing over the past decade. In 2001, 61.3% of Baker Lake residents reported English to be the main language spoken at home compared to 36.1% who spoke Inuktitut most frequently. In 2011, 70.8% indicated English to be the main home language and 28.2% spoke Inuktitut predominately (NBS 2012).	In 2011, issues of language use and culture clashes between Inuit and Southern workers were cited by participants as reasons some Baker Lake employees left Meadowbank to pursue other opportunities in town. At this time, Inuit were unable to speak Inuktitut while working on the job site, but resented the fact that French-speaking workers were speaking their native language. In 2012, this situation improved: Inuktitut was accepted as a language spoken on site for safety reasons. Participants stressed the importance of open communication and working together as a team at camp to address social and cultural tensionS. The levels of Inuktitut speaking and number of residents who claim Inuktitut to be their mother tongue is lower in Baker Lake than in several other Kivalliq and Nunavut communities. Community and school-based language initiatives are hoping to reverse these trends while promoting literacy in both English and Inuktitut.
Poor financial decision making	Government social indicators, consultation results, possibly special purpose	Low to high negative or positive at the individual level depending on assistance program effectiveness, although	*NBS Indicator* With an increased standard of living, there are	Every respondent in 2012 mentioned drug and alcohol use as a concern for community wellness, affected by underlying structural issues, rising incomes, the two-week schedule, and population

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
	studies	overall it is expected that comparatively few will make consistently poor choices	some concerns associated with spending. Across Nunavut, sales of alcoholic beverages have been increasing. The total income and revenue from legal alcohol sales between 2010 and 2011 increased 55.4% across the territory. While regional or community-specific data on alcohol sales are not publically available, the proportion of newly earned monies spent towards alcohol, drugs and gambling is of concern to Baker Lake residents.	growth. The two weeks of downtime without structure, combined with a lack of money management skills, was also identified as a concern, and a cause of reckless spending, including gambling and drug and alcohol consumption.

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
Increased income disparity	Government social indicators, consultation results, possibly special purpose studies	Moderate, although community initiatives may help to mitigate impact.	Interview	Making money is not the only concern for Inuit working at Meadowbank; for many Inuit, other responsibilities, such as family, take priority over employment and income. Problematically, when incomes grow, an employee's rent in Baker Lake can increase substantially (e.g. upwards of 25x the cost before employment). This has created a disincentive for some to continue employment, given that the majority of Kivalliq Inuit are home renters.
Increased public health and safety risks	Government social indicators, consultation results	Low as public health and safety is a function of many things out of a single project's control but project effects on community prosperity should produce an overall positive impact on individual behaviour	DPA, NBS At the 2011 SEMC meeting in Baker Lake, the RCMP clearly stated that Agnico's provision of income has stimulated staggering increases in crime due to incomes being used to purchase alcohol and drugs. Agnico is currently in the midst of developing a new Employee Assistance Program that will include education to our employees on managing a paycheque and counselling related to assisting families cope with adjusting to shift rotations and employment" Across the territory of Nunavut, crime rates have been increasing over the last decade. However, crime rates have been rising in Kivalliq over the	Population growth and an increase in consumer goods, drugs, alcohol and gambling were affecting crime-rates, and particularly thefts and home break-ins. It is not uncommon to hear of vehicle theft now in the community, and participants were concerned by this lack of respect for personal property. With more vehicles on the road, several participants were concerned with increased traffic, drinking and driving, and the safety of youth in particular. Several participants noted there are more "unsavoury characters" on the streets than there used to be, making it less safe for families to let their children, especially girls, out in the town without supervision. Respondents discussed not knowing who their neighbours are anymore, locking their doors when home in the middle of the day, and a concern for their family's safety. A few participants expressed

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
			last several years at a rate faster than the territory of Nunavut is experiencing on average. In Baker Lake, the number of criminal code violations (including traffic violations) has increased from 316 in 2006 to 753 in 2011 (NBS 2012). The majority of these criminal violations are incidents of mischief, disturbing the peace and assault. Crimes against persons, including acts and threats of violence, have been on the rise as well (NBS 2012). In Baker Lake, the rate of crimes against the person (calculated as crimes per 1,000 residents) increased from 66 in 2006 to 85 in 2010 (SEMC 2011). Rates of suicide, violence and sexual assault, have been also increasing in recent years, some of which can be attributed to overcrowded housing and associated stressors Community health centre visits have been decreasing per annum since 2006 when there were 12,903 visits to 2011 with 9,652 visits recorded.	a social reluctance in the community to report incidents such as disturbing the peace and domestic abuse to the authorities, but noted that this attitude is changing as priorities ultimately lie in ensuring the safety of one's family and home.
Stress from	Government	Low particularly over time	The two-week rotation has contributed to spousal	The relative impact of the two week in-two week

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
rotational employment	social indicators, consultation results	as families learn to manage rotations, and benefit from the positive effects of participation in the mixed economy	stress in Baker Lake, and that gossip and rumours of infidelity are causing relationship problems. Important are childcare responsibilities and lack of community childcare facilities that can prevent Inuit, and particularly single mothers, from accessing or maintaining a job at Meadowbank. The relationship between supervisors and workers and amongst workers was also discussed at the 2011 meeting as an area of concern, with issues of gossip and miscommunication creating tension between employees. While no previous data appear to exist, marital status rates for ages 15+ indicate 20 cases of separation and 15 cases of divorce in Baker Lake during 2011. If these statistics continue to be collected, they could serve as an indicator of family stability.	out schedule varies greatly as well. Participants indicated that working out of the community for 2 weeks at a time is a big adjustment for many who are “not used to that type of time” maintaining a strict work schedule. For some, leaving the community for two weeks at a time presents a huge challenge for childcare and other family obligations. Single mothers in particular noted that they are unable to access job opportunities with the mine because of inadequate childcare within Baker Lake. This raises concerns of socio-economic inequality, particularly given the high costs of living in the Arctic.

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
Increased traffic accidents and emergencies	Project health and safety reporting	Low to high at the individual level, depending on the seriousness of the accident however mitigation is expected to keep accidents to a minimum	NA	NA
Disturbance by project activities	Consultation results	Negligible, as very little of the project physical activity will take place in Baker Lake	Interview	There are some concerns about the environmental impacts of mining and industrial development, but most feel that Agnico-Eagle is following the required procedures and taking necessary precautions. Some respondents expressed concerns about the mine's impacts on the spiritual health of the land, with 23 reports of spirit disturbances at the Meadowbank site; healing measures have been undertaken to address these concerns. There is significant scepticism about land reclamation, however, as the tundra takes longer to regenerate compared with other ecosystems.
Shortage of housing and other infrastructure	Consultation results	Low as numbers of in migrants are expected to be low	The lack of sufficient and adequate housing contributes to household stress. About 300 Baker Lake residents over the age of 15 reported being on the waiting list for public housing at the time of this survey. Of these individuals, 100 had been on the waiting list for between one and three years, and about 50 others indicated being	The development of the Meadowbank Mine has generated in-migration of individuals from the Kivalliq and across Canada seeking employment. This has accelerated the need for improvements in Baker Lake's housing and infrastructure.

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
			on the waiting list for five years or longer (NBS 2011). These housing data, while merely a snapshot from a one-year period, provide an indication of community wellness as Baker Lake continues to grow and more demand is placed on community housing and infrastructure.	

Table 4.19.10.2: Socio-Economic VSECs – Negatively Perceived and Observed Impacts as compared to FEIS Predictions (Table 12.11 from 2014 Annual Report)

Potential Impact	Proposed Monitoring	After Mitigation Significance	Monitoring Conducted (2011-2014)	Observed Negatively impacts as compared to FEIS predictions (2011-2014)
Increased demand for social services	Government social indicators, consultation results	Low but positive on assumption that increased income will decrease need for government transfers for some individuals; potential long term affects would result from capacity building	SEMC: The number of households collecting social assistance has decreased in recent years. In 2006, the monthly average social assistance caseload was 239 households, representing 706 individuals, compared with 124 households and 537 individuals in 2010. The main attributable factor for these lower levels is the more than 150 residents of Baker Lake working at the Meadowbank camp, and new job opportunities in town. The same trend is occurring in Rankin Inlet, while other communities in Kivalliq are experiencing a rising number of social assistance cases.	Levels of social assistance have decreased with the mine, with a large impact on material well-being for those able to access new employment opportunities. Of course, there are still people living on social assistance or working minimum wage jobs in town, meaning that there may actually be a widening economic gap with the increase in the number of higher wage employees in town.
Potential degradation of historically significant sites	Consultation results	Negligible, project as designed avoids sites and archaeology and traditional knowledge studies indicate little potential for encountering as yet unknown sites	Archeology study	No destruction

Employment and Training

The Meadowbank mine has brought well over $80 Million in wage income to the Kivalliq region since start up in 2010. This employment generates annual wage income of over $20 Million per year for Inuit families in the Kivalliq region.

The proposed expansion of the Vault Pit into Phaser Lake will allow current Meadowbank employment levels and training programs to continue for at least one additional month. To put this into perspective current employment levels are summarized in the following excerpt taken from AEM's annual Meadowbank Project Certificate Report submitted to NIRB in March of 2015.

The total number of people working at the Meadowbank Mine site as of December 31, 2014 was 1,012 persons (Contractors, AEM Permanent + Temporary), broken down as follows:

- # Working for contractors: 224
- # Working for AEM: 788

The total AEM workforce at the end of 2014 was 788 broken down as follows:

• Permanent AEM employees	693	87.9%
• Temporary AEM employees	95	12.1%
• AEM employees who are Inuit / Nunavummiut	269	34.13%
• Proportion of AEM employees who are female	120	15.2%

Table 4.19.10.3: Total Workforce at the Meadowbank Mine as of Dec 31, 2014

Total # of AEM employees on AEM Payroll on December 31, 2014; 788		
# of above employees who are permanent AEM employees	**693**	**88.0%**
of these employees who are Inuit /Nunavummiut	179	25.6%
of these employees who are female	89	13.0%
# of above employees who are temporary employees	**95**	**12.0%**
of these employees who are Inuit	90	94.7%
of these employees who are female	31	33.0%

AEM defines a permanent employee as an employee whose current job is not specifically tied to a short-term project and the position is expected to be required throughout the LOM. A temporary employee is considered as an employee whose current job will not continue beyond a specified period of time. A temporary on-call employee, 100% filled by Inuit/Nunavummiut, is an employee who has an indefinite contract and is called upon when the need arises.

Table 4.19.10.4 and Table 4.19.10.5 list the types of jobs held by Inuit and non-Inuit employed at Meadowbank as of December 2014. At the end of December 2014, 269 Inuit and 519 non-Inuit were employed at Meadowbank.

Table 4.19.10.4: Types of job positions held by Inuit/Nunavummiut at Meadowbank as of Dec 31, 2014

Job position	Total
Apprentice	6
Auxiliary Equip. Operator	21
Cook Helper	5
Dishwasher	23
Driller and Blaster	3
Environmental Technician	1
Fixed Equipment Operator	1
Haul Truck Trainee	3
Guests Services Leader	1
Haul Truck Operator	67
Heavy Equipment Operator	3
Helper	36
Human Resources Agent	2
IIBA Coordinator	1
Janitor	68
Labourer	14
Millwright	1
Production Loading Equip. Operator	2
Receptionist	1
Security Guard	8
Sharpener	1
Utility Person	1
TOTAL	**269**

Table 4.19.10.5: Types of job positions held by non-Inuit at Meadowbank as of Dec 31, 2014

Job position	Total	Job Position	Total
Carpenter	4	Airport Controller	1
Leader Operation	2	Protocol Agent	2
Leader Trades	10	Assayer	10
Electrician	6	Chief Assayer	1
Utility Person	6	Clerk	6
Building Mechanic	6	Counselor	12
Machinist	2	Chief	2
Welder	9	Dispatcher	4
Mechanic	33	Engineer	14
Millwright	11	Geologist	7
Crusher Operator	4	Hygienist	1
Grinding Operator	4	Leader	3
Relief Operator	6	Metallurgist	4
Leach/CP Operator	4	Nurse	2
Haul Truck Operator	12	Officer	3
Guest Services Leader	5	Planner	9
Instrumentation Technician	7	Refiner	1
Diesel Mechanic	2	Specialist	4
Plumber	3	Security Guard	2
Driller and Blaster	39	Assistant Superintendent	5
Crane Operator	2	Superintendent	12
Fixed Equipment Operator	1	Supervisor	38
Heavy Equipment Operator	6	Assistant General Supervisor	2
Auxiliary Equipment Operator	26	General Supervisor	15
Prod. Loading Equip. Operator	28	Surveyor	3

Sharpener	2	Technician	32
Cook	19	Trainer	7
Paster Baker	2	Warehouse Person	14
Pump Man	9	Reagent Operator	6
Power Plan Operator	4	Analyst	6
Process Controller	4	Administrative Assistant	1
Coordinator	11		
TOTAL			**519**

As of the end of 2014 AEM estimates that close to 81% of the Nunavummiut workings at Meadowbank are working in what we classify as either skilled or semi-skilled occupations.

Table 4.19.10.6: Skill level of position held by Inuit/Nunavummiut at Meadowbank as of Dec 31, 2014

Total # of AEM Inuit employees as of December 31, 2014		
# of these employees that have a *skilled* level job	35	13%
# of these employees that have a *semi-skilled* level job	183	68%
# of these employees that have a *unskilled* level job	51	19%
Total	**269**	**100.0%**

The total person hours worked by all AEM Meadowbank employees (Permanent + Temporary) for the 12-month period ending December 31, 2014 was 1,720,992. Table 4.19.10.7 provides a breakdown by Nunavut and non-Nunavut based employees.

Table 4.19.10.7: Person-hours worked - Nunavut based vs. Non-Nunavut based Employees

Jan. 1, 2014 to Dec. 31, 2014	Person-Hours	%
All AEM Employees		
Nunavut Based AEM Employees	585,312	34%
Non Nunavut Based Employees	1,135,680	66%
Total	**1,720,992**	100.00%

Table 4.19.10.8 shows the breakdown of the home communities of the Nunavut based employees as of December 31, 2014 compared to December 2013 and December 2012.

Table 4.19.10.8: Home Communities of Nunavut Based Employees

	As of December 31, 2014		As of December 31, 2013		As of December 31, 2012	
Arviat	38	14.1%	28	11.5%	44	17.8%
Baker Lake	155	57.6%	162	66.4%	154	62.3%
Chesterfield Inlet	3	1.1%	3	1.2%	5	2.0%
Coral Harbor	5	1.9%	3	1.2%	1	0.4%
Rankin Inlet	44	16.4%	31	12.7%	29	11.7%
Repulse Bay	10	3.72%	4	1.6%	2	0.8%
Whale Cove	2	0.75%	3	1.2%	2	0.8%
Others	12	4.5%	10	4.1%	10	4.0%
Total	**269**	**100.0%**	**244**	**100.0%**	**247**	**100.0%**

AEM funds the transportation of all Nunavut based employees from their point of hire to the Mine for each work rotation. AEM has a service contract with First Air to transport AEM employees by charter plane from Kivalliq Communities directly to and from the Meadowbank Mine. Currently all Nunavut resident employees from the southern Kivalliq communities (Arviat, Chesterfield Inlet, Whale Cove) are transported by commercial carrier to Rankin Inlet to connect with the First Air charter to the mine

site. For those who live in Coral Harbour and Repulse Bay commercial flights provide transport from their community to Baker Lake. These employees are transported to Meadowbank on the "daily ride" from Baker Lake.

Based on AEM's experience it has become apparent that many Inuit have never had a full time work experience in their home communities where full time employment opportunities are often very limited; and although employment opportunities are actively sought working away from home for two weeks at a time in a structured industrial environment is a change that many cannot adapt to.

Exit interviews and focus group meetings support this assumption and the following provides the most common reasons given for voluntary terminations for Inuit employees;

- Spousal relationships issues;
- Did not like the work or too tired to continue working;
- Too much gossip amongst co-workers;
- No babysitter or daycare;
- Found a new job in town Home sick – need to go home;
- Family wanted them to come home;
- Work was too hard or did not like the work; and
- Increase in rent for social service housing (example $30 to $880 per month).

In 2014 a total of 119 Nunavummiut employees terminated their employment (voluntary and involuntary terminations). Of these, 75 were temporary employees and 44 were permanent employees. The positions with the highest turnover are, respectively: helper, janitor, haul truck driver and labour (sites services). The average length of employment for the terminated employees was 356 days, with a range from 3 to 2,619 days.

Training

The Meadowbank mine has created an extensive well-equipped training program on site. During 2014, a total of 32,742 hours of training was provided to 944 AEM Meadowbank employees. Among them, 224 Inuit employees were provided training. AEM identifies three main categories of training; Health and Safety, General and Specific training. Part of the Health and Safety training is mandatory and are in an e-learning format. General and Specific training consists of job related training that is provided both on the job and in class. This information as well as a comparison for the previous 12 month period is shown in Table 4.19.10.9.

Table 4.19.10.9: Training Hours for Meadowbank Employees Period Ending December 31, 2014

Total training hours					
Training Hours for AEM Employees	**Training Hours (Jan. 1 - Dec. 31 2013)**	**Training Hours (Jan. 1 - Dec. 31 2014)**			
		Health and Safety	General	Specific	**Total**
Inuit Employees	13,530	1,522	647	12,175	14,344
Non Inuit Employees	15,054	612	1,367	9,275	18,398
Total	**28,584**	**1,224**	**2,014**	**21,450**	**32,742**

Table 4.19.10.10: Summary of Meadowbank Expenditures for 2014

Vendor type	Value 2014	%
Total Expenditures	$ 230,404,686	100%
NTI Registered	$ 86,251,368	37%
Nunavut based	$ 105,096,205	46%
Northern based (NU & NT)	$ 105,605,869	46%
Baker Lake Based	$ 37,676,009	16%

The following table shows expenditure levels, by vendor type, since project start in 2007 to December 31, 2014

Table 4.19.10.11: Summary of Meadowbank Expenditures2007-2014

Vendor type	2007-2014($)	%
Total Expenditures	$ 2,598,149,112	100%
NTI Registered	$ 705,871,837	27%
Nunavut based	$ 1,045,214,456	40%
Northern based (NU & NT)	$ 1,234,535,096	48%
Baker Lake Based	$ 427,002,740	16%

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/SUPPORTING_DOCS/002%20Impact%20Assessment/socio%20economic%20archaeology/Socioeconomic%20EIA_FINAL%20Oct2005.pdf

The Meadowbank Project has the potential to affect traditional ways of life in both positive and negative ways, which in any case have and will continue to evolve in response to events unrelated to the project. The project will not significantly restrict productivity of lands used for subsistence activity. The environmental and traditional knowledge sections of the October FEIS concluded that there is little

potential for disturbance to wildlife resources moving through the area of the mine, and that the land at the mine site is not used, except perhaps opportunistically for hunting caribou and other animals or for fishing. Hunting and fishing patterns, as well as construction of summer camping facilities, rapidly decrease in intensity as one moves away from Baker Lake in all directions. While there is some concern amongst regulators that the construction of the all-weather access road could ultimately result in overhunting between Baker Lake and the mine site, consultation results suggest that the people of Baker Lake feel well qualified to manage their wildlife resources and ensure this does not happen.

Despite measures to encourage the continued valorization and practice of tradition, there remains potential for erosion of traditional values owing to the participation of local residents in the formal wage economy and increased contact with non-Northerners and their culture. This in turn has the potential to affect individual and community wellness and the economic well-being of people who must depend on subsistence activity for their livelihoods.

Individuals will make their own livelihood and lifestyle choices. The project only provides opportunity for economic participation in the project. These opportunities are provided not only in a context of best practice with regard to human resource policy, but also of aggressive government programming in support and encouragement of subsistence activity and preservation of traditional knowledge.

People have rights to make and be supported in the choices, including between the traditional and formal economies.

Individual and Community Wellness

The Meadowbank Project has resulted in the following payments to government:

- Approximately $30 Million in employee paid income taxes per year to the federal and provincial governments;
- Approximately $3 Million in employer paid payroll taxes per year the GN; and

- Approximately $1 Million per year in equivalent Municipal land tax paid to the GN every year.

The proposed expansion of the Vault Pit into Phaser Lake is of short duration and will not materially change the original individual and community wellness predictions covering increased income, rotational employment, migration to and from Baker Lake, public health and safety, and support for community initiatives that were made under Section 3.2.3 of the Socioeconomic & Archaeology Impact Assessment report that was submitted to the NIRB in October of 2005 (available from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/SUPPORTING_DOCS/002%20Impact%20Assessment/socio%20economic%20archaeology/Socioeconomic%20EIA_FINAL%20Oct2005.pdf

The proposed Vault Pit expansion will allow current individual and community wellness related initiatives, programs and monitoring activities that have been put in place by AEM since 2008 to continue for at least one additional month. To put this into perspective key individual and community wellness initiatives undertaken by AEM in conjunction with its partners are summarized in the following excerpt taken from AEM's annual Meadowbank Project Certificate Report submitted to NIRB in March of 2015.

During 2014 AEM made more than best effort to ensure that local communities benefit from our operations, no matter where it operates. As a company that cares about the health and wellbeing of its employees, the company wants to encourage AEM employees and their families to make healthy lifestyle choices.

The Company has taken steps to ensure that an employee assistance program, by the same provider as used by the Government of Nunavut, has been available to our employees. Due to the unfortunate deaths of a number of AEM employees from Kivalliq communities AEM arranged for professional

counselling sessions for the co-workers of employees at site. The grief counsellor made 4 visits to Meadowbank in 2014. The company also arranged with local clergy to make monthly visits to Meadowbank to hold services and provide counselling as required.

A community based Family Network support program for families of AEM employees has also been maintained in 2014. The Kivalliq Mine Training Society (KMTS) has greatly contributed to this program and helped us in identifying the real needs at this level. This program aims to provide moral support to the families of employees working at the Meadowbank site through information sessions and discussions. Activities such as sewing workshops in communities for the spouses of AEM employee were organized to encourage participation. In 2014, with support from the KMTS, AEM introduced a FIFO (fly in-fly out) program that saw the spouses of employees come to Meadowbank to experience what mining life was like at Meadowbank. The FIFO program included spousal counselling sessions on effective communications, financial management, conflict resolutions and healthy living. Feedback to date is very encouraging and the FIFO program will continue in 2015.

However, AEM is not in the community health and well-being business and has limited experience on how to address the situation. Governments and communities, who have the mandate, expertise and resources to provide community development and treatment services such as drug and alcohol counselling and access to other government services have not been able to provide anything substantial towards solutions yet. The social issues raised by the RCMP in the past clearly point to the need towards intervention by governments. Agnico Eagle is encouraging governments to act on these matters and is willing to discuss and consider partnership opportunities towards solutions that will help AEM employees and their families.

Participation in the Kivalliq Socio-Economic Monitoring Committee

In July of 2007 AEM submitted Draft Terms of Reference (TOR) for the Meadowbank Gold Project Socio-Economic Monitoring Committee (SEMC) to the Nunavut Impact Review Board. Indian and Northern Affairs Canada, Government of Nunavut and AEM jointly developed these TOR. NIRB

acknowledged receipt of these TOR on July 16, 2007 and accepts SEMC reports as part of annual review.

The Kivalliq Regional SEMC met in Baker Lake and Meadowbank Mine on October 7 to 9 2014. AEM participated at the meetings and provided presentations. Copies of these presentation materials were previously provided to the GN and are included in the Kivalliq Regional SEMC report and are available on the GN SEMC website (http://www.nunavutsemc.com/Kivalliq).

At the October 2014 SEMC meeting the technical committee finalized a terms of reference to guide a socio-economic monitoring program. The development of these terms of reference has been a complex and time consuming effort that has required numerous meetings towards a co-operative agreement between the GN, AEM and Canada on the data to be collected to be used to guide the starting point for the Meadowbank socio-economic monitoring program. The monitoring program will collect data from the beginning of Meadowbank operations and be updated on an annual basis to indicate trends.

Given that at the technical level there was an agreement reached in October 2014 on the starting point for the Meadowbank Socio-Economic Monitoring Program, AEM is now able to proceed in the production of a report. The Company has engaged a quality consulting firm with considerable expertise and knowledge in socio-economic research, monitoring and reporting to develop the Socio-Economic Monitoring Program report. Agnico expects to have the report ready for review by the SEMC by Sept 30, 2015.

AEM will continue to actively participate in the Kivalliq Regional SEMC and will meet its socio-economic reporting requirements to NIRB through the SEMC annual report. To the best of our knowledge AEM has complied with all of the requests for data made by the SEMC and is current with all commitments made to the SEMC by AEM.

Baker Lake Wellness Report & Implementation Plan

In the Meadowbank IIBA AEM has committed to prepare for the KIA an annual report on the wellness of the Inuit residents of Baker Lake. The KIA has agreed that the report will be community based and driven. The Hamlet of Baker Lake was directing the wellness report with support from the University of Guelph (paid for by AEM).

For the purpose of developing Hamlet wellness indicators that are meaningful to Baker Lake residents, qualitative community-based research was conducted to capture how Baker Lake residents define and perceive their Hamlet's wellness.

A proposed list of wellness indicators, based upon interviews and focus groups with Baker Lake residents as well as a draft version of the Wellness report were provided in 2013. The final version of the report and the Implementation plan are still under development as further discussions need to be held between AEM, the Hamlet of Baker Lake and KIA. Due to 2014 being a Municipal election year the outgoing Mayor requested that the draft report be put aside until a new Mayor and Council were elected. The Company plans to organize a meeting with the representatives of the Hamlet in May 2015 to discuss the Wellness report program.

Infrastructure and Social Services

The proposed expansion of the Vault Pit into Phaser Lake is of short duration and impacts a small additional land area that is immediately adjacent to an active mining site. It is AEM's belief that this proposed pit expansion will not materially change the original predictions covering impact on infrastructure and social services that were made under Section 3.2.4 of the Socioeconomic & Archaeology Impact Assessment report that was submitted to the NIRB in October of 2005 (available from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-

FEIS/SUPPORTING_DOCS/002%20Impact%20Assessment/socio%20economic%20archaeology/Socioeconomic%20EIA_FINAL%20Oct2005.pdf

The proposed expansion does not require or include construction of any new support infrastructure. The expansion will use existing mine site infrastructure and thus no new socioeconomic effects on infrastructure are projected. There will be no additional effect on existing community infrastructure.

The proposed pit expansion will extend the current situation with respect to impact on social services for one additional month and in reality will likely have less of an effect than will be seen in this respect upon the final closure of the Meadowbank Mine.

Protection of Archaeological Resources & Implementation of the Archaeological Resources Management Plan

No archaeological sites were identified within the Vault Pit Expansion area that is covered under this EIS addendum (FMA Heritage Inc., 2010). Consequently the proposed expansion of the Vault Pit into the Phaser Lake area is expected to have no new effects/impact on archaeological resources or sites of cultural/heritage importance.

Archaeological field studies related to the Meadowbank Mine project were undertaken in 1999, 2003, 2005, 2006 and 2010. Agnico respects all identified archeological sites by ensuring ongoing avoidance and disturbance of all previously identified sites. In 2014 there were no new development, expansion, construction, road building, etc. activities conducted or planned taken in areas of the mine site that have not already been assessed by archaeological impact.

Meadowbank has in place an Archaeology Resource Management Plan. This plan has not required any modifications since it was submitted to the NIRB in October of 2005 and can be accessed at the NIRB ftp site via the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/08-FINAL_EIS/174._051108-CRL-FEIS-MB-ITAE/SUPPORTING_DOCS/003mgmt.plans/socioeconomic%20%26%20archaeology/

AEM staff within the environmental department continues to monitor all site activity on an ongoing basis to ensure that no identified archaeological sites are disturbed or impacted by ongoing mining activities. The primary control tool is to ensure that all activity remains inside the defined boundaries of the existing mine site where we know field studies have been previously conducted to identify potential archaeological resource sites. AEM staff within the environmental department routinely inspects all areas of the mine site where activity is occurring with the objective of ensuring that archaeological sites are protected and that activity does not extend beyond the defined mine site boundaries.

Overall given the insignificant change in operations and the decrease in the overall life of mine since the original FEIS, the socioeconomic impact of the proposed Vault Pit expansion into the Phaser Lake area will not materially change any of the impact predictions for the identified VSECs that have been reported on through the annual reporting submitted to the NIRB in 2009 thru 2014.

4.20 Summary of Impacts

As discussed in the previous section, a few changes proposed Phaser Pit and BB Phaser Pit will occur that are outside the original impact assessment in the original FEIS, but following mitigation are either offset or within the scope of the currently approved project. These include:

- The construction and operation of a few addition of haul roads connecting the new pits to Vault Pit infrastructure,
- Water diversion and water management in Vault area will extend by 1 month of operations, but will not significantly change closure plans;
- The dewatering of Phaser Lake, fish out and partial destruction of Phaser Lake, and

- Reflooding of Phaser Lake.

The impacts of dewatering of Phaser Lake and the associated loss of fish habitat during operation, have been reviewed previously by the DFO and will require a DFO approval which began in 2012. Furthermore, the dewatering activity proposed in this document will follow current dewatering plans approved by the NIRB and NWB. Following reflooding, which is planned to begin at the end of mining Phaser Pits, the offsetting will ultimately improve Phaser Lakes by creating connectivity to Vault and Wally Lake and the additional research proposed in the offsetting, the project will be a significant contributor to regional fisheries knowledge. Furthermore, based on current mine plans, Phaser Lake no longer requires water diversion into Turn Lake, which was originally predicted to be a potential impacted. Through these small extend the change the Meadowbank Mine from the original FEIS, AEM believes the impacts can be mitigated and managed and are discussed in the subsequent section.

4.21 Environmental Management and Mitigation

4.21.1 Management Plan Overview

Below is a list of all updated management plan approved by the Board and included as part of the NWB Type A water license this renewal application. These plans have been developed, updated and revised in consultation with applicable regulatory agencies and stakeholders, beginning during the original FEIS submission. The management plans prevent and mitigate the potential impacts identified through the impact assessment process. Below is a list of relevant management plans that are available on the NWB website at the following link:

ftp://ftp.nwb-oen.ca/1%20PRUC%20PUBLIC%20REGISTRY/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEA0815%20Agnico/1%20APPLICATION/2015%20Renewal/

The plans have been updated to reflect approved changes in the project since the original FEIS.

- Aquatic Effect Management Program (AEMP), Version 2 (Dec. 2012);
- Core Receiving Environment Monitoring Program (CREMP), Design Document, Version 1 (Dec. 2012);
- Water Quality Monitoring and Management Plan for Dike Construction and Dewatering, Version 4 (April 2010);
- Groundwater Monitoring Plan, Version 4 (Jan. 2014);
- Quality Assurance/Quality Control (QA/QC) Plan, Version 2 (July, 2014);
- Water Quality and Flow Monitoring Plan, Version 3 (July, 2014);
- Emergency Response Plan, Version 6 (Aug. 2013);
- Hazardous Material Management Plan, Version 3 (Oct. 2013);
- Spill contingency Plan, Version 4 (Nov. 2013)
- Operational ARD/ML Testing and Sampling Plan, Version 2 (Nov. 2013);
- Baker Lake Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan, Version 3 (June, 2014);
- Meadowbank Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan, Version 2 (June 2014);
- Incinerator Waste Management Plan, Version 5 (July, 2014);
- Interim Closure and Reclamation Plan, Version 2 (Jan.2014);
- Landfarm Design and Management Plan, Version 3 (Feb. 2013);
- Landfill Design and Management Plan, Version 2 (March. 2013);

- 2013 Water Management Report and Plan, Version 1 (March 2014);
- Ammonia Management Plan, Version1 (Feb. 2013);
- Dewatering Dike : Operation, Maintenance and Surveillance Manual, Version 3 (Sept. 2013);
- Tailings Storage Facility : Operation, Maintenance and Surveillance Manual, Version 3 (Sept. 2013);
- Mine Waste Rock and Tailings Management Plan, Version 1 (March 2014);
- Operation and Maintenance Manual: Sewage Treatment Plan, Version 4 (Apr. 2013).

4.21.2 Management of Impacts on the Environment

4.21.2.1 Water Quantity Management

Vault Area water management (including Phaser Lake) was evaluated in AEM 2014. A total catchment area of 582.0 ha (which included Vault Pit, and dewatering of Phaser Lake, Vault Attenuation Pond Drainage Area, and Rock Storage Area) was assessed and incorporated into the revised water management plan and it was determined that the infrastructure onsite could handle the water management associated with Phaser Lake and Phaser Pit management. The total volume of Phaser Lake was estimated at 700,000 m3 and is expected to be dewatered in less than 3 months. Water is planned to be pumped from Phaser Lake into the Vault Attenuation Pond and sent through the treatment plant, if necessary. Overall the planned Actiflo system, which has a maximum capacity of 750,000 m3/month or 25,000 m^3/day is adequate to manage the additional volume in the Vault Attenuation pond according to SNC (2013). Water in the attenuation pond or in Phaser Lake could be used for dust suppression in the Vault Pit and on the haul roads. AEM (2010) will be followed to ensure dewatering volumes are managed according to NWB Type A Water Board License Part D Item 16. Monitoring of changes in Wally Lake level will be completed and changes in water quantity that might affect the aquatic system due to dewatering activity, will be completed as part of the Core Receiving Environmental Monitoring Program (this monitoring program is described in Section 4.23).

4.21.2.2 Water Quality Management

Water quality is not expected to change due to the Vault Expansion to include BB Phaser and Phaser Pit. Water quality will be monitored during the dewatering of Phaser Lake. AEM intends to transfer Phaser Lake water into the Vault Attenuation pond, treat if needed, and discharge the water into Wally Lake through the diffuser and in accordance with NWB Type A water License Part F Item 3. An Actiflo system, which has a maximum capacity of 750,000 m3/month or 25,000 m3/day will be used to remove TSS and will ensure the Type A Water License Part F Item 3 requirements for discharge are met.

As per reflooding plans for the closure of the Meadowbank site, AEM will monitor the water quality in Vault Lake (which includes Vault Attenuation, Vault Pit, BB Phaser and Phaser Pit) to ensure WQ meets CCME water quality criteria for the protection of aquatic life, prior to breaching the Vault dike to ensure the protection of the aquatic environment after closure.

4.21.2.3 Fish

Following the example of similar mining projects in the north, the original NNLP used a modified Habitat Evaluation Procedure (HEP) to calculate losses and account for them with gains in habitat units. In 2010 and 2011, AEM revisited the original NNLP and historical addendums, and found discrepancies between the number of habitat units described in the plan and those in the authorizations granted by DFO. Since these discrepancies could not be accounted for by AEM, Cumberland consultants and DFO, the development of a new NNLP for the Meadowbank site was proposed by AEM and approved by DFO. It was developed in accordance with DFO's No-Net-Loss (NNL) policy, which was current at the time of NNLP development, and focussed on compensation for aquatic habitats affected by HADD resulting from the Project. Since the submission of AEM (2012), there have been significant changes to the Fisheries Act, with the emphasis shifting from compensation for habitats affected by HADD to the concepts of offsetting potential impacts to the productivity of CRA fisheries.

Although the language has changed to reflect the new objectives of the current Fisheries Act (i.e., to maintain or enhance productivity of CRA fishery and avoid serious harm to fish), the original plan remains focused on changes in the availability and suitability of fish habitat, as estimated by the total number of habitat units (HU – a surrogate for productivity) before and after the expansion. The proposed use of HUs as a surrogate for estimating productivity of CRA fishery was discussed with DFO in January 2014 as part of the Meliadine offsetting plan when it was agreed that the methods of estimating habitat losses and gains under the new policy can remain similar to the requirements of the NNL policy under the previous legislation. This was again confirmed in DFO meetings with AEM in May 2015.

In view of the above agreement the following describes the offsetting (or HU gains) described in AEM (2012), which included Phaser Pit, and a recent Addendum to include BB Phaser Pit. Because the Vault Expansion to include BB Phaser and Phaser Pit, was not considered part of the life of mine until recently, and due to the fact that it was not part of the Project Certificate, AEM and DFO did not formerly include Phaser Lake losses in the Vault Lake Area authorization. However, all of the calculation of losses and gains of Phaser Lake have been accounted for in AEM (2012), and are included in the Vault Area that is authorized under DFO authorization NU 03-0191.4. The Vault Authorization and entire NNL Plan (AEM, 2012) is provided in Appendix C of this report which was reviewed thoroughly by DFO (in consultation with Dr. Ken Minns), and uses a Habitat Evaluation Procedure which was approved by DFO for use at the Meadowbank and Meliadine mine sites. This same approach was taken to account for BB Phaser losses and will be further discussed with DFO.

The footprint of mining activities in the Vault Lake Area (which includes Phaser Lake) is shown in Figure 4.21.1 adapted from the NNLP Addendum (see Appendix D), including the location of pits, roads and dikes. Habitat Loss in the Vault Lake Area will occur in two lakes - Vault Lake and Phaser Lake. Most of Vault Lake was dewatered in 2013. This lake will be completely dewatered in 2014. Mine operations started in Q1 2014, in the Vault Pit. The shallow passage between Vault Lake and the adjacent Wally Lake was diked in Q1 of 2013 to provide hydraulic separation for these otherwise isolated lakes. With DFO approval, a fish salvage program was conducted prior to and during dewatering in Vault Lake in 2013. With DFO approval, AEM proposes to salvage the fish from Phaser Lake which will be transferred to Wally Lake or nearby waterbodies, helping to alleviate temporary losses in productive capacity in the watershed. A site specific fishout workplan, based on Tyson et al. (2011), will be developed in consultation with DFO representatives and implemented upon approval by DFO.

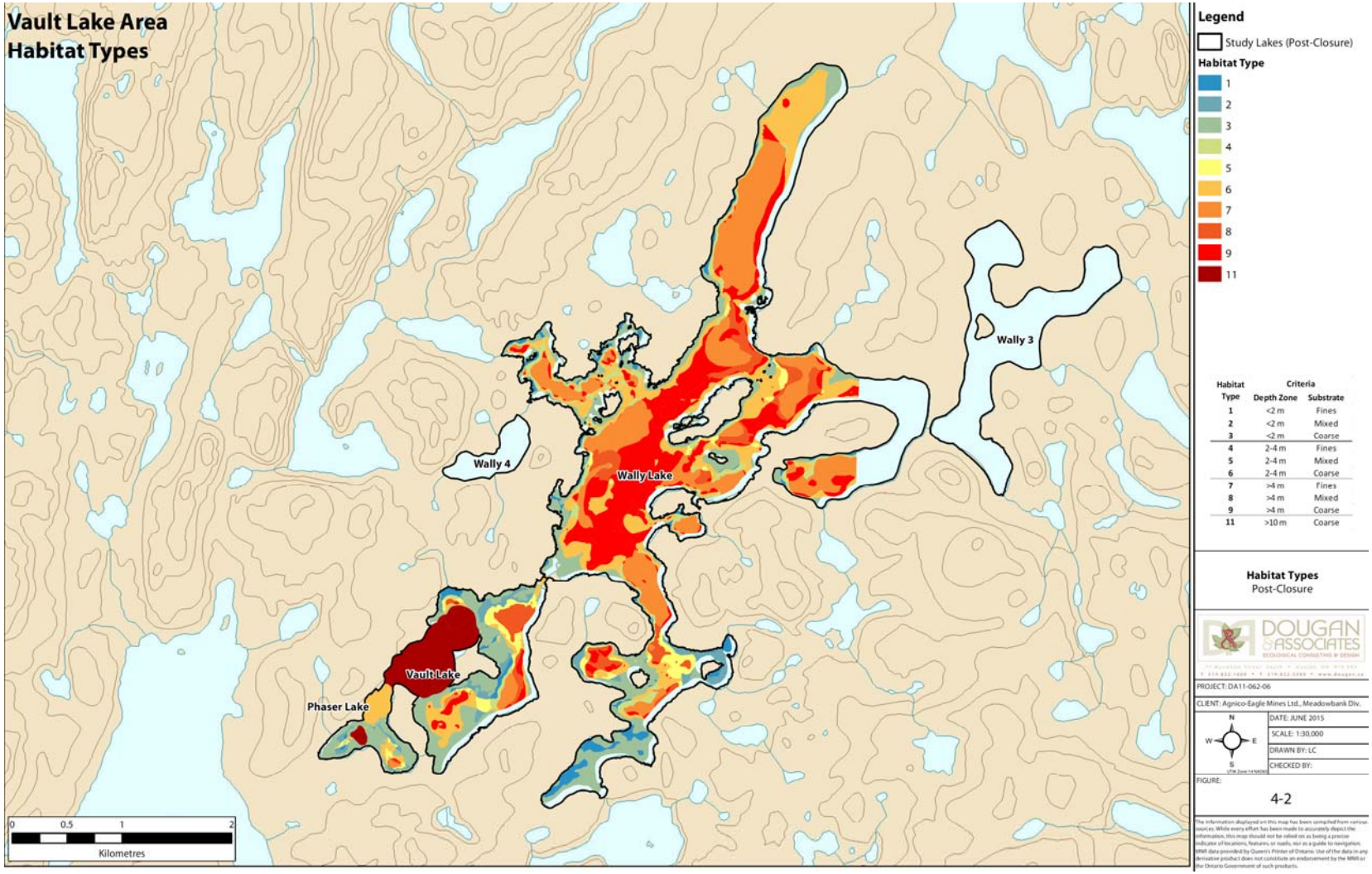


Figure 4.21.1: Vault Area (including Vault Pit, Phaser Pit and BB Phaser Pit) Fisheries Habitat Mapping

Compared to the Portage Lakes and Vault Lake (94 ha), Phaser Lake is a small offline waterbody (25 ha). Vault Lake was connected via a semi-passable channel to the larger Wally Lake. One fish was observed crossing this passage in baseline studies (Azimuth, 2005). Adjacent to Vault Lake, Phaser Lake is small and isolated waterbody, with a maximum depth of 4-5 m. The fish populations of Vault and Phaser Lakes were examined briefly in a 2004 study for the BAEAR (Azimuth, 2005), and again in 2012 (AEM, 2012). Phaser Lake was found to contain a small population of lake trout and round whitefish. The total HU lost due to the proposed Vault Pit Expansion is 5.35 HUs.

After mining, Vault Pit will connect Vault and Phaser Lakes, the Pits and former lake beds will be reflooded and the Vault Dike will be breached to allow both lakes to gradually re-fill. Once these lakes are hydraulically and chemically stable (see Golder, 2005) and meet water quality requirements, the Vault Dike will be removed, allowing fish from Wally Lake access to Vault and Phaser Lakes.

Post-closure alterations to Vault and Phaser Lakes will result from construction of pits, pit caps, roads and dikes (as seen in Figure 3-5 of the NNL Appendix C). Both lakes will be expanded as a result of land-to-lake conversion in the Vault Pit. Backfilling of a portion of the pit (3.94 ha) in Phaser (or Vault Lake) to 2-4 m depth will reduce the amount of ultra-deep areas and create a diversity of fish habitat. However, the un-filled portion of the pit will actually provide improved overwintering habitat, which is limited in these relatively shallow lakes. Further habitat improvements in these lakes will be made through development of shoals due to permanent roadway construction which will be scarified, areas of mixed substrate from temporary haul roads, and the improvement of the connecting channels between Vault and Wally Lakes, and Vault and Phaser Lakes, to allow improved fish movements. The total Habitat Unit gains for Vault Pit expansion into Phaser Lake is 12.87 HUs. In particular, the connection to Wally Lake will provide access for arctic char (after connection to W3), which were present in Vault Lake in low numbers[3] and have not been found in Phaser Lake. Improvement of the connection to Wally Lake will involve deepening the channel inside the Vault Dike to a depth of at least

[3] During the 2013 Vault Lake fishout, a small population of Arctic char was found in Basin A in a small isolated, but deep basin in Vault Lake. It is expected that this population will expand and char from W3 will expand into Vault and Phaser Lake by providing improved access to a specific niche that is occupied by char.

3 m, while the lake is dewatered, to allow fish passage year-round after removal of the dike. Offsets are planned to include reflooding of the de-watered lake following habitat improvement measures such as backfilling of the Phaser Pit, construction of shoals to create higher-value habitat, and access enhancements for Arctic char. A total of 13.22 HU are gained through these measures. As additional an additional offset, AEM proposes to provide a portion of the offsetting costs for research funding, with a planned focus on aquatic eDNA. This project would make use of the unique opportunity to confirm results of eDNA analysis following the Phaser Lake fishout program. The features of Vault and Phaser Lakes post-closure are described in Table 4.21.1.

Table 4.21.1: Features of Phaser Lake and details of the changes and assumptions used to calculate habitat type areas for each feature, post-closure; taken from NNLP Addendum (see Appendix D).

Lake	Compensation Measure	Feature Name	Gains (HUs) - 2012	Gains (HUs) - 2015
Vault Lake	Re-flooding	Basin	-	-
		Vault Pit	-	-
		Vault Pit Cap	0.85	0.85
		Vault Pit Land-to-Lake	-	-
		Vault Dike removal	-	-
	Access to Wally Lake	Access for arctic char to Vault Lake	17.14	17.14
Subtotal			*17.99*	*17.99*
Phaser Lake	Re-flooding after pit backfill	Basin	4.70	3.93
		Phaser Pit	1.42	1.42
		Phaser Pit Cap	0.20	0.16
		Phaser Pit Land-to-Lake	2.01	2.01
		Roads	0.80	0.85

		BB Phaser Pit	N/A	0.55
		BB Phaser Pit Cap	N/A	0.42
	Access to Wally Lake	Access for arctic char to Phaser Lake	3.74	3.88
Subtotal			*12.87*	*13.22*
ADDITIONAL ALLOTTED GAINS				
Dogleg System	Connecting channel	Dogleg Pond	0.31	0.31
		Dogleg North Pond	0.91	0.91
		NP-2	0.63	0.63
Wally Lake	Access to W3	Access for arctic char to Wally Lake	32.61*	32.61*
Subtotal			*34.46*	*34.46*
TOTAL ALLOTTED GAINS			65.32	65.67

Once screened by NIRB, AEM will work with DFO to authorize the Vault Expansion into Phaser Lake. Overall, AEM will salvage as many fish as possible to maintain the fish productivity within the Wally Lake and Vault Lake system. Under post closure scenarios, AEM believes this is an improvement in the fish habitat of Phaser Lake as demonstrated in the Vault Lake Area fish habitat unit calculations in AEM (2012) and recent NNLP Addendum to include BB Phaser Pit impacts (in Appendix D). For additional information for the protection of the fishery, such as on no fishing policies, please refer to the original FEIS*.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

4.21.3 Management of Impacts on Socio-Economic Environment

In the 2005 FEIS for the Meadowbank Project, AEM presented its plans, policies and programmes designed to minimize potential negative socio- economic effects and to optimize potential positive effects. The management plans that specifically address the socio-economic environment included:

- Human Resources Plan;
- Occupational Health & Safety Plan;
- Socio-Economic and Archaeology Management Plan; and
- an Emergency Response Plan.

all of which were included in the 2005 FEIS for the Meadowbank Project.

4.21.3.1 Human Resources

As part of its initial 2005 FEIS, AEM submitted a Human Resources Management Plan for its Meadowbank Mine. This Plan is accessible from the NIRB ftp site via the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/SUPPORTING_DOCS/003%20Management%20Plans/human%20resources/Human%20Resources_FINAL_Oct2005.pdf

This Human Resources Management Plan provided a framework for human resources management at the Meadowbank Mine. Many elements of this Plan have evolved over the past decade. Current human resources programs and policies applied by AEM at both its Meadowbank Mine and at the developing Meliadine Gold Mine Project are presented in the Human Resources Plan included as SD 9-4 to the Meliadine FEIS submitted to the NIRB in 2014 and accessible from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/11MN034-AEM%20MELIADINE/2-REVIEW/09-FINAL%20EIS/FEIS/VOL%209/SD%209-4/140506-11MN034-SD%209-4-Human%20Resources%20Plan-IA2E.pdf

Management of Human Resources at both the Meadowbank and Meliadine sites are handled through a single HR group as part of AEM's Nunavut Services Group. AEM's Nunavut Services group provides the functions of human resources, training, health and safety, environment, logistics and strategic optimization for both sites to ensure continuity and consistency of policies applied and programs delivered. Consequently the programs and initiatives referenced in the Meliadine Human Resources Plan also apply at the Meadowbank site and will continue to be in place for the proposed Vault Expansion to include BB Phaser and Phaser Pit which is the subject of this EIS addendum.

The Human Resources Plan addresses human resources procedures, programs and initiatives including applicable human resources legislation in Nunavut; organization planning; succession and career plans; compensation plans; benefit programmes, vacation leave); work rotation schedules; hiring practices; skills and entry requirements; training and development; transportation supplied by AEM to and from the Project site; alcohol and drugs; sexual and gender harassment; employment for women; human resource information systems; labour relations (e.g., procedure for submitting grievances or concerns, disciplinary procedures); employee communications; employee indoctrination and cross cultural training programs.

4.21.3.2 Occupational Health and Safety

As part of its initial 2005 FEIS, AEM submitted an Occupational Health and Safety Plan for its Meadowbank Mine. This Plan is accessible from the NIRB ftp site via the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/SUPPORTING_DOCS/003%20Management%20Plans/occupational%20health%20and%20safety/Occupational%20Health%20%26%20%20Safety%20Plan_%20FINAL_Oct2005.pdf

This Occupational Health and Safety Plan provided a framework for health and safety management at the Meadowbank Mine. Many elements of this Plan have evolved over the past decade. Current health and safety programs and policies applied by AEM at both its Meadowbank Mine and at the developing Meliadine Gold Mine Project are presented in the Health and Safety Plan included as SD 9-6 to the Meliadine FEIS submitted to the NIRB in 2014 and accessible from the NIRB ftp site at the following link:

http://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/11MN034-AEM%20MELIADINE/2-REVIEW/09-FINAL%20EIS/FEIS/VOL%209/SD%209-6/140506-11MN034-SD%209-6-Occupational%20Health%20and%20Safety%20Plan-IA2E.pdf

Management of Health and Safety at both the Meadowbank and Meliadine sites are handled through a single OH&S group as part of AEM's Nunavut Services Group. AEM's Nunavut Services group provides the functions of human resources, training, health and safety, environment, logistics and strategic optimization for both sites to ensure continuity and consistency of policies applied and programs delivered. Consequently the programs and initiatives referenced in the Meliadine Human Resources Plan also apply at the Meadowbank site and will continue to be in place for the proposed Vault Expansion to include BB Phaser and Phase Pit which is the subject of this EIS addendum.

The Health and Safety Plan addresses good safety practices, safety awareness, risk management, mine rescue, employee involvement, and management commitment. It addresses: safety reporting; safety orientation; hazard analysis; training in first-aid, emergency response team training including fire- fighting and -prevention, workplace monitoring; and surveillance.

4.21.3.3 Nunavummiut Involvement

The following section provides an overview of the methods and practices AEM utilizes to maintain and enhance a two-way communication between AEM and the public/communities, specifically means by which AEM seeks collaboration on decisions having the potential to affect people. Through these procedures, AEM strives to ensure ongoing opportunities for meaningful participation are afforded to

the communities and public of the Kivalliq region during all project's phases. To AEM, "public" refers to "all the people of the Kivalliq region as a whole, Inuit and non-Inuit combined"; "community" refers to the "body of people living in the same locality".

4.21.3.4 Public Involvement

AEM's goal is to create awareness and understanding of its Meadowbank and Meliadine projects, and to receive feedback. Its success in getting the information out and having it understood can lead to successful community involvement in its activities. The means to distribute information include fact sheets, reports, advertisement in Nunatsiaq News, information stands at Symposiums, and the AEM Nunavut website. As AEM recognizes the rich visual and oral tradition of Inuit, information is preferably communicated at community meetings and workshops. Similar and appropriate means will be used for communicating effects and risks, monitoring results and project's related information on economic opportunities, community contributions, and social, cultural and ecological conditions.

The formation and ongoing operation of the Meadowbank Community Liaison Committee (set up in 2010) is a proactive step undertaken by AEM to enhance public/community engagement. Moreover, the maintenance of an office in Baker Lake and now Rankin Inlet provides easy access to information on Project activities and meaningful interaction with AEM staff and management. The Baker Lake and Rankin Inlet offices are a place where people can easily go to ask questions, express concerns, get information on the Projects, lodge grievances, drop off job applications, submit business proposals, and/or attend to meetings with Project staff. Key Kivalliq communities also have an AEM's Community Liaison Representative to offer similar services to people.

Since the start of construction in 2007, many public consultation events have been held. Comments received during these consultations have been taken into consideration by AEM and incorporated when possible and practical in the operational management and monitoring plans in place at Meadowbank. An engagement database is maintained, including any issues raised and steps taken to resolve these issues. Effectiveness in community involvement is seen in moving to higher forms of

public engagement and increased public engagement frequency as trust and confidence is built between both parties. Meaningful consultation leads to sustained constructive relationships which foster the development of effective ways of sharing information with communities and clear procedures that maximize community participation.

These community engagement activities are currently in place and will continue throughout the Meadowbank Mine life.

4.21.3.5 Impact and Benefits Agreements

The first Inuit Impact and Benefits Agreement (IIBA) for the Meadowbank Project was signed on March 21, 2006 by the Kivalliq Inuit Association and by Cumberland Resources (later amalgamated into AEM). This IIBA covered all mining, milling and exploration activity for the Portage, Goose and Vault deposits as described under Project Certificate #004 issued by the NIRB in December of 2006.

A renewed IIBA for the Meadowbank Project was signed by KIA and AEM in June 2011 reflecting lessons learned by both parties from the implementation of the 2006 IIBA. This IIBA is by mutual agreement still in force. AEM and KIA started a scheduled review of this second Meadowbank IIBA in 2014 and have reached an understanding on a third renewal of this IIBA expected to be concluded and signed later in 2015. The intent is to harmonize where possible and where practical the terms and conditions contained within the Meadowbank IIBA with the new Meliadine IIBA. This third renewal of the Meadowbank IIBA is intended to include arrangements covering the proposed Vault expansion to include BB Phaser and Phaser Pit which is the subject of this addendum.

The Meadowbank IIBA addresses all of the provisions of the NLCA relating to impact and benefits agreements, including Article 6, Part 4 of Article 9, Part 3 of Article 20, Article 26, and Article 27. The current Meadowbank IIBA remains in force but both KIA and AEM expect to conclude a third renewal by late 2015.

The existing Meadowbank IIBA provides Inuit Beneficiaries in the Kivalliq Region with assurances that local communities are able to take advantage of job opportunities; training; preferential hiring

programmes; business development and contract arrangements; participation in monitoring activities; and provides for a dispute-resolution process between AEM and KIA.

4.21.3.6 Pollution Prevention

Pollution prevention is defined by the Federal Government in the document Pollution Prevention: A Strategy for Action (Environment Canada, June 1995), which links the concept of pollution prevention with sustainable development. Agnico Eagle's focus has been on preventing pollution from occurring rather than managing It[*]. In some circumstances human nature supersedes and accidents occur that require mitigation; as previously discussed, Agnico Eagle has to date a very strong compliance performance and has taken additional care to ensure the Meadowbank project is developed sustainably. For more information on Pollution prevention, please refer to the environmental management plans presented in Section 4.21.1.On site staff have implemented a comprehensive inspection and monitoring program directly related to license and permit terms and conditions. The reason for this program is to be proactive in pollution prevention and to respond quickly to any potential impacts.

4.22 Residual Impacts

As per the original FEIS, minor residual effects of the project include: (1) change in water movement and surface area of Second Portage Lake because of the tailings deposits and Portage pit; (2) local changes in small mammal, bird, and fish populations due to temporary habitat loss); and (3) increase in fish habitat at the mine site at closure (positive effect) [*].

Following the impact assessment, mitigation, management and proposed offsetting for the Vault expansion to include BB Phaser and Phaser Pit operations, there are no residual impacts related to the dewatering and loss of fish habitat of Phaser Lake. Rather, there will be a net improvement as the

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

[*] Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

Turn Lake watershed will not be impacted as per the original FEIS and there will be a net increase in fish habitat at the mine site at closure.

4.23 Monitoring and Follow-Up

4.23.1 Overview

Local fish and fish habitat in the receiving environment will be monitored to evaluate the potential impact of seepage discharge as per NWB Type A Water License Vault Attenuation discharge Part F. Although most of the impacts will be mitigated by use of a diffuser and discharge will be directed to minimize effects to the aquatic environment in Wally Lake, physical habitat (water quality and sediment quality), food supply (benthic invertebrates), and fish health could be altered. To prevent impacts to the receiving environment, sediment and erosion control measures will be implemented. Furthermore, monitoring programs will be conducted to evaluate both the physical and biological impacts - Type A Water License discharge limits will be respected, MMER monitoring will continue, and Core Receiving Environmental Monitoring Program (CREMP) monitoring will continue. The monitoring programs are discussed in the following text.

4.23.1.1 Water Level and Erosional Changes

As previously described, as per Type A Water License conditions, AEM will monitor water levels on a monthly basis and during open water season to evaluate erosional changes in Wally Lake during the dewatering of Phaser Lake. AEM does not expect any changes to occur, as Phaser Lake is part of the Wally watershed; however, if changes occur, the frequency of monitoring will increase. Mitigative options will be discussed with regulators should this occur and could include a cessation of discharge.

4.23.1.2 Dewatering and Water Quality Monitoring (MMER- EEM)

Water levels in Wally Lake will be monitored monthly at the effluent discharge station in accordance with the Water Quality and Flow Monitoring Plan (AEM, 2014). Historical water levels in Wally Lake

have not been altered since the dewatering of Vault Lake, and are not expected to be altered during the dewatering and operation of Vault Pit expansion into Phaser Lake.

AEM has been monitoring the current discharge of Vault pursuant to Environment Canada's MMER. To date there have been no exceedences of MMER criteria during discharge activities of Vault Lake. This monitoring program will apply to the additional water volume that will be discharged as part of the Phaser Lake dewatering. AEM will meet the current Water License limits Part F item 3 and MMER schedule 4.

4.23.1.3 Fish Habitat Monitoring

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 (structure, water quality, periphyton and fish use), while slightly modifying methods based on past experience, new compensation features, current life-of-mine designs and to meet the conditions of the updated Fisheries Authorizations.

Fish habitat gains at Meadowbank are derived through both physical improvements to existing habitat (e.g. creation of reefs), and the facilitation of access to new habitat (e.g. previously fishless or underutilized areas). As per the Vault area authorization both physical and ecological components will be monitored and documented as to whether each feature is constructed and is functioning as intended. Table 4.23.1 summarizes the habitat compensation monitoring that will be undertaken for the Vault Pit expansion.

Table 4.23.1: Vault Area Habitat Compensation Monitoring (taken from AEM, 2014)

Table 5. Summary of monitoring methods, analytical parameters, sampling frequency and number of samples for compensation features constructed in the Vault and Phaser basins (Under DFO NU-03-0181.4). Year of re-flooding completion est. 2023 (F). Year of dike breach est. 2025.

Compensation Feature	Component	Reason	Method	Parameters	Number of Samples	Sampling Schedule
Basin	Structure	Design intent met	Air photos Field survey	Area, substrate, depth zone	-	Prior to flooding
	Open basin water quality*	Possible metals leaching, anoxia	Tube sampler Grab samples Depth profiles	Conventional parameters; Anions;Nutrients; Organic parameters;Total and dissolved metals	1 per basin	3x yr from F until dike breach Afterwards, per CREMP
	Fish use	Confirm use (re-flooded basin and at dike breach)	Angling Underwater motion camera Hoopnets	CPUE Physical characteristics	TBD by field staff	2025 2030
Roads	Structure	Design intent met	Air photos Field survey	Area, substrate, depth zone	-	Prior to flooding
		Stability	Underwater camera	Qualitative observations	Representative transect TBD by field staff	2025 (post flooding)
Pits	Structure	Design intent met	Air photos Field survey	Area, substrate, depth zone	-	Prior to flooding

*Monitoring and sampling protocols will be developed and conducted in-line with CREMP sampling

Table 6. Summary of monitoring methods, analytical parameters, sampling frequency and number of samples for access enhancement compensation features (Under DFO NU-03-0181.3 and DFO NU-03-0181.4).

Feature	Component	Reason	Method	Parameters	Number of Samples	Sampling Schedule
Dogleg Ponds	Structure	Design intent met (monitor water levels, especially access to Dogleg North)	Bathymetric survey	Area of ponds, depth of access channels	All three ponds and connecting channels	2015, 2017, 2019, 2021 (Odd-numbered years); 2025
	Fish use	Confirm use by fish	Angling Underwater motion camera	CPUE Physical characteristics	TBD by field staff	Odd-numbered years until 2021; 2025
W3 Access	Structure	Design intent met (W3 passage constructed as intended)	Bathymetric survey	Width, depth of excavation	-	Upon completion
	Fish use	Confirm movement of Arctic char into Wally Lake	Hoopnets at channel	CPUE Physical characteristics	TBD by field staff	Odd-numbered years after completion 2025 2030

4.23.1.4 Core Receiving Environmental Monitoring

The Core Receiving Environmental Monitoring Program (CREMP) will monitor receiving environment at randomly selected stations throughout Wally Lake (See Figure 3.1 from 2011 CREMP Report, Azimuth, 2012) and include the following components:

- Water chemistry data will be collected up to 6 months per year (April, May, July, August, September and November/December -depending on logistical constraints - e.g., snow and ice conditions). Two randomly located subsamples will be collected at each station in each month. All samples are surface samples (3 m from the surface). In addition to the core water chemistry program, basic water quality data will be collected at key near-field areas (including Second Portage Lake) at least once mid-winter to reduce uncertainty regarding the potential occurrence of changes over winter.

- Sediment chemistry core sampling for the CREMP is intended to detect long term trends, therefore a sampling frequency of approximately every three years is recommended or will be aligned with the sampling times for benthic invertebrates required for the EEM program.

- Sediment chemistry grab sampling that matches benthic invertebrate sampling (i.e., once per year) are collected to ensure basic physical variables (e.g., particle size) not covered by sediment core sampling (due to volume limitations) but which may nevertheless affect benthic invertebrates.

- Phytoplankton is collected at the same time as the water chemistry data are collected, but only the open water samples (July to September). Two randomly located subsamples will be collected at each station for each sampling event. All samples should be surface samples (3m from the surface).

- Benthic invertebrates are collected once per year in August at all stations, with 5 subsamples per station.

The CREMP monitoring program is an iterative process and the study design is revisited periodically based on accumulated data to ensure the ability of the CREMP to detect impacts to the receiving environment. Between erosion control measures, water quality monitoring prior to discharge, routine MMER monitoring and CREMP monitoring, the potential impacts to the receiving environment due to the Vault Expansion to include BB Phaser and Phaser Pit will be adequately evaluated.

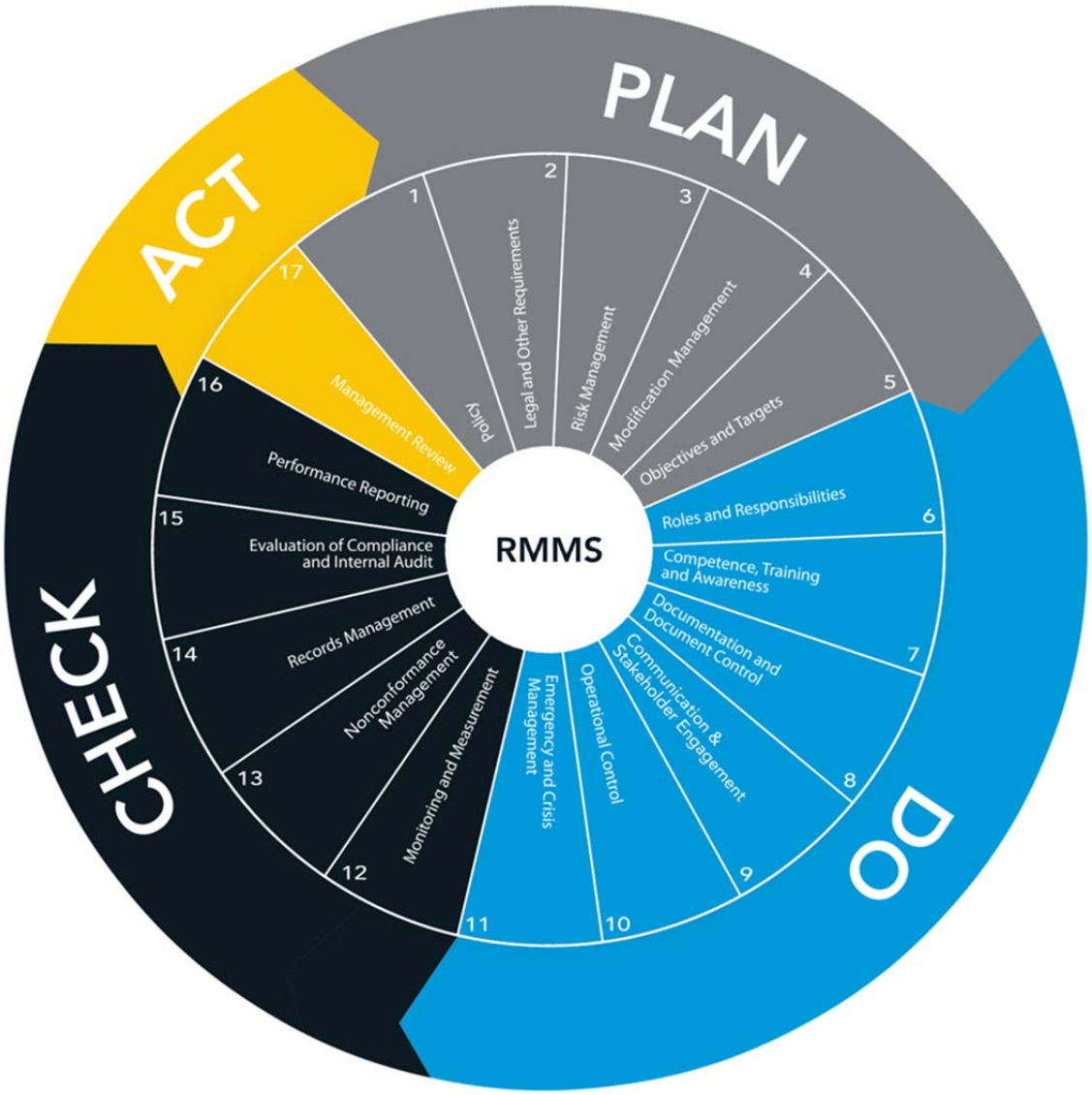
4.23.2 Community Liaison Committees

AEM in conjunction with the Hamlet of Baker Lake established a Meadowbank Community Liaison Committee early in the mine's development life (September 2008). The formation and ongoing operation of the Meadowbank Community Liaison Committee is a proactive step undertaken by AEM to enhance public/community engagement. This committee continues to meet and address issues of mutual concern between AEM and the residents of Baker Lake. It will continue to operate throughout the Meadowbank mine life and into the closure period.

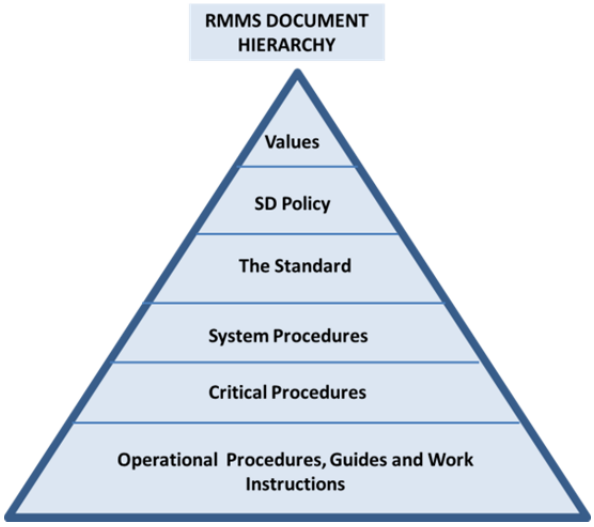
4.24 Auditing and Continual Improvement System

Agnico Eagle has a formal environmental management system (EMS) in place at its Meadowbank operation. This EMS will continue to be implemented and applied by Agnico Eagle for all operations related to the proposed expansion of the Vault Pit (Phaser and BB Phaser Pits). Internally this EMS is referred to as the Responsible Mining Management System (RMMS). The primary focus of this system is to provide an integrated framework for the management of health, safety, environmental and social acceptability performance. The RMMS supports the application of AEM's Sustainable Development policy. As shown in the following graphic the system uses the ACT-PLAN-DO-CHECK principles and in that respect, it was built to be consistent with ISO 14001 and OHSAS 18001. It also aims to achieve leading industry practices and as such meets the requirements of the following commitments: Toward Sustainable Mining (TSM) Initiative from the Mining Association of Canada,

International Cyanide Management Code, Conflict Free Gold Standard from the World Gold Council, Global Reporting Initiative 4, and Carbon Disclosure Project. It includes 17 elements as outlined in the following graphic:



The RMMS incorporates the elements of an integrated system designed on the principles of continual improvement (through the PLAN-DO-CHECK-ACT cycle). It is divided into 17 elements, with each element set out to achieve a specific objective in the management of health, safety, environment and social acceptability risks. Many of the elements are interrelated. Every element of the system includes a number of clauses detailing what is needed to reach the objective.



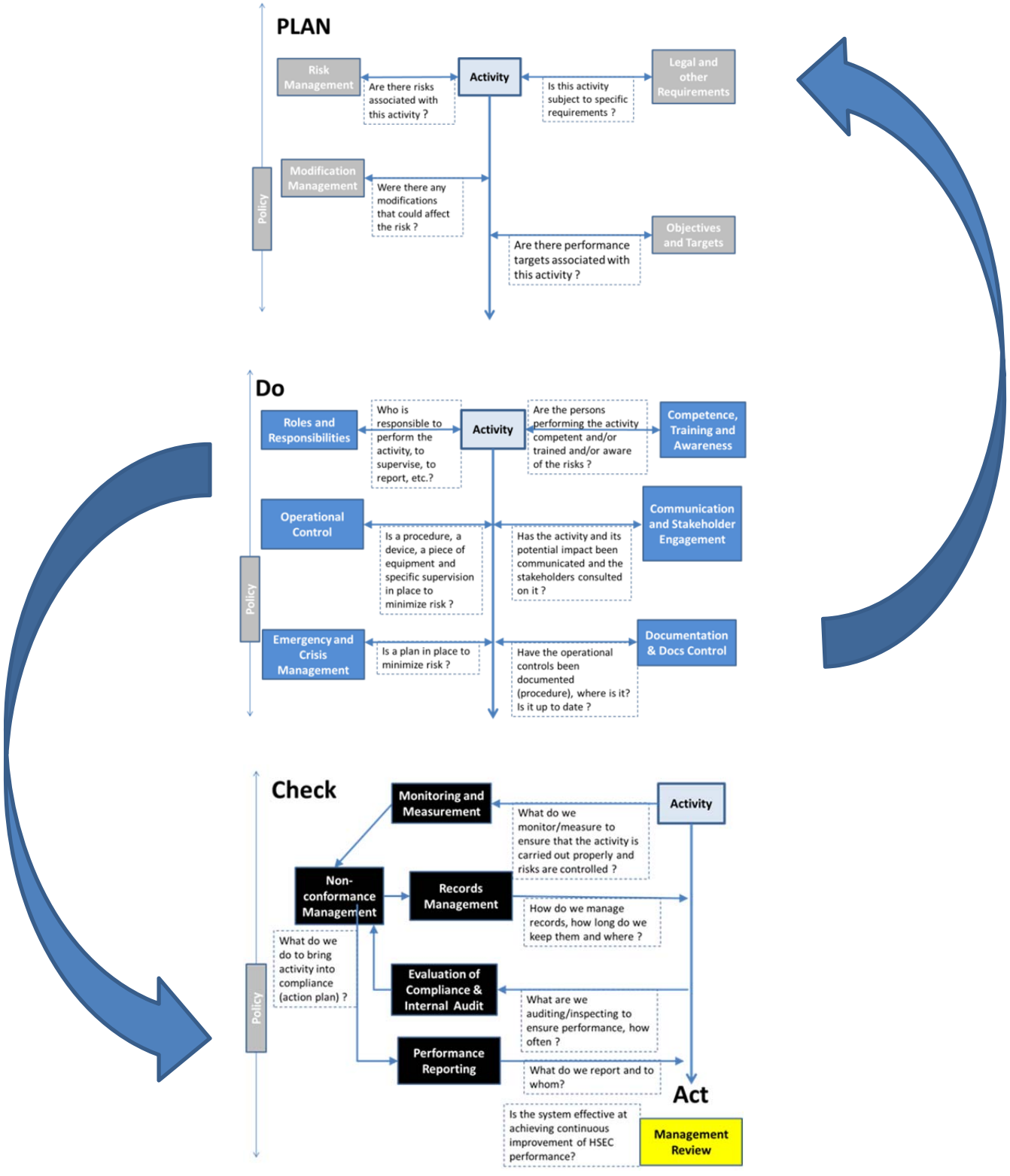
RMMS suite of documents

The RMMS is implemented through an on-line system that uses software provided to AEM by a Canadian based company called Intelex. This Intelex software supports the implementation of the Agnico Eagle RMMS. The following processes are currently managed with Intelex:

- Legal and other requirements,
- Risk management,
- Work card follow up,

- Competence, training and awareness,
- Document control,
- Stakeholder communication,
- Non-conformance management,
- Environmental and Health & Safety incident management, and
- Audit management.

The following is a typical workflow showing how the 17 elements of the RMMS (Plan 1-5, Do 6-11, Check 12-16, Act 17) are used to manage the health, safety, environment and social acceptability performance of a given activity.


PLAN
Risk Management
Are there risks associated with this activity ?
Activity
Is this activity subject to specific requirements ?
Legal and other Requirements
Modification Management
Were there any modifications that could affect the risk ?
Policy
Are there performance targets associated with this activity ?
Objectives and Targets
Do
Roles and Responsibilities
Who is responsible to perform the activity, to supervise, to report, etc.?
Activity
Are the persons performing the activity competent and/or trained and/or aware of the risks ?
Competence, Training and Awareness
Operational Control
Is a procedure, a device, a piece of equipment and specific supervision in place to minimize risk ?
Has the activity and its potential impact been communicated and the stakeholders consulted on it ?
Communication and Stakeholder Engagement
Policy
Emergency and Crisis Management
Is a plan in place to minimize risk ?
Have the operational controls been documented (procedure), where is it? Is it up to date ?
Documentation & Docs Control
Check
Monitoring and Measurement
Activity
What do we monitor/measure to ensure that the activity is carried out properly and risks are controlled ?
Non-conformance Management
Records Management
How do we manage records, how long do we keep them and where ?
What do we do to bring activity into compliance (action plan) ?
Policy
Evaluation of Compliance & Internal Audit
What are we auditing/inspecting to ensure performance, how often ?
Performance Reporting
What do we report and to whom?
Act
Is the system effective at achieving continuous improvement of HSEC performance?
Management Review

As part of its RMMS Agnico Eagle has staff assigned to maintain and train its employees, specifically those involved in environmental management, health and safety, community and stakeholder engagement and appropriate front line supervision and management on the appropriate and applicable elements of the RMMS. The RMMS is in place and functioning at the Meadowbank Mine and thus will continue to be in place for the Vault Pit expansion activities covered by this EIS addendum.

4.25 Closure and Reclamation

The proposed Vault Pit expansion will be reclaimed as part of the larger Vault Pit. It will ultimately be flooded as laid out in Section 3.3.5 in the Meadowbank Interim Closure and Reclamation Plan that was submitted to the NWB in 2014 and is accessible from the NWB ftp site at the following link:

ftp://ftp.nwb-oen.ca/1%20PRUC%20PUBLIC%20REGISTRY/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEA0815%20Agnico/1%20APPLICATION/2015%20Renewal/140805%202AM-MEA0815%20B14%20Interim%20Closure%20and%20Reclamation%20Plan%20Version%202%20Jan2014-ILAE.pdf

Waste rock from this pit expansion will be stored in the existing Vault Waste Rock Storage facility and will be reclaimed as part of this facility. Provisions for reclamation of the Vault open pit and all associated facilities have been addressed under the current Meadowbank Type A Water License, including provisions for reclamation security. The expansion of the Vault Pit into the Phaser Lake area will not materially affect these reclamation plans and provisions given the relatively small are of the proposed expansion.

Temporary closure would be addressed using the same techniques and plans as laid out for the Vault Open Pit as described in the above referenced Interim Closure and Reclamation Plan.

The above referenced Interim Closure and Reclamation Plan respects all applicable regulations, standards, and policies and addresses the mine, mine rock, overburden, and tailings disposal facilities

and areas, water retention and diversion structures, buildings and site infrastructure, fuel and hazardous materials storage facilities, wastes, borrow pits and quarries, roads and airport, and all disturbed areas. It states objectives for reclamation, such as the re-establishment of stable physical landforms and land-use productivity, and the long-term physical and chemical stability of water resources. It discusses reclamation methods and the schedule and time frame (e.g., progressive reclamation).

4.26 Outstanding Issues

There are no outstanding issues in the FEIS Addendum.

4.27 List of Consultants

The list of all the consultants who contributed to the preparation of the original FEIS, including their role and contact information (mailing address, telephone number, fax number, and e-mail address) is found in Section 5.0 of the original FEIS*.

This Addendum and all supporting documents have been prepared by Agnico Eagle mines with GIS help from Dougan and Associates related to a NNLP Addendum.

* Refer to the original FEIS - ftp://ftp.nirb.ca/02-REVIEWS/COMPLETED%20REVIEWS/03MN107-MEADOWBANK%20GOLD%20MINE/02-REVIEW/09-FINAL%20EIS/02-FEIS/

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