



DESCRIPTION OF DESIGNATED PROJECT UNDER THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT, 2012

Executive Summary

Proposed Redevelopment of the Griffith Iron Ore Mine



Northern Iron Corp.





Submitted to:

Canadian Environmental Assessment Agency 55 St. Clair Avenue East, Suite 907 Toronto, ON M4T 1M2

and

Ministry of Northern Development and Mines 435 James Street South, Suite B002 Thunder Bay, ON P7E 6S7

Executive Summary

Company Information

Northern Iron Corp. (NIC) is a publicly traded company focused on developing high quality iron ore opportunities in the Red Lake Mining Division of Ontario, Canada in order to produce merchantable hot briquetted iron (HBI) for the export market. The Griffith Mine Project is a proposed redevelopment of a brownfield site within the Township of Ear Falls in northwestern Ontario. The former Griffith Mine produced iron pellets from 1968 until 1986 and sponge iron during 1975 and 1976 for the Steel Company of Canada Limited (now US Steel Canada). NIC is currently engaged in redeveloping the Griffith Mine.

Project Name: Griffith Mine

Proponent: Northern Iron Corp.

Principle Contact People: Basil Botha, President CEO

409 Granville Street, Suite 1051

Vancouver, BC V6C 1T2 Tel: 604-566-8570 Fax: 604-602-9867

Email: bbotha@northernironcorp.com

Cameron Tymstra, Technical Manager 141 Adelaide Street West, Suite 340

Toronto, ON M5H 3L5 Tel: 647-725-3794 Fax: 647-725-3796

Email: ctymstra@northernironcorp.com

The redevelopment of the Griffith Mine will:

- dewater the existing north open pit (under Permits to Take Water, one of which has been received from the Ministry of the Environment [MOE] which assesses water quality, quantity, discharge conditions and public comments through a posting on the Ontario Environmental Bill of Rights Registry);
- continue mining operations to deepen the existing north open pit under provisions of the *Mining Act*, 1990, as amended;
- re-use established waste rock and tailings areas, including containment facilities;
- re-use the existing road and rail network (and/or upgrade as necessary);
- re-use existing waste rock for any aggregate requirements through a licence granted by the Ministry of Natural Resources (MNR);
- require a new supply of natural gas to the mine by twinning the existing Union Gas pipeline that parallels Highway 105 from the vicinity of Highway 17;
- require the development of a natural gas-fired generating station (to be owned, constructed and operated and decommissioned by others) capable of supplying 60 megawatts (MW) to the mine, or a 115 kilovolt (kV) electrical transmission line from the Dryden area capable of supporting an equivalent amount of power (to be owned, operated and decommissioned by Hydro One);





- re-use the existing facilities area for the proposed new processing facilities;
- be subject to a host of permits in order to operate the facility;
- prepare a mine Closure Plan as per Ministry of Northern Development and Mines (MNDM) requirements (Ontario Regulation 240/00); and
- provide for rehabilitation of the existing south tailings management area (TMA).

In conformity with the Canadian Environmental Assessment Act (CEAA 2012), NIC is submitting the Project Description (PD) to the Canadian Environmental Assessment Agency (the Agency) to initiate the environmental assessment (EA) process. Copies of the PD and Executive Summary will be sent to the public library in the Township of Ear Falls, Wabauskang First Nation, Lac Seul First Nation, Grassy Narrows First Nation and the Métis Nation of Ontario. The PD is also being submitted to the MNDM to initiate provincial environmental and permitting requirements. The Executive Summary submitted to CEAA and MNDM will be used for public and complete PDmay found aboriginal consultation purposes. The be on NIC's website (www.northernironcorp.com).

Application of the Canadian Environmental Assessment Act, 2012

The Griffith Mine redevelopment is a Designated Project under Section 15 of the *Regulations Designating Physical Activities*. Specifically, this Section states that an EA may be required when an undertaking involves:

- 15. The construction, operation, decommissioning and abandonment of:
 - (a) a metal mine, other than a gold mine, with an ore production capacity of 3,000 tonnes per day or more;
 - (b) a metal mill with an ore input capacity of 4,000 tonnes per day or more...

This PD is being submitted in order for the Agency to make a determination whether an EA under CEAA 2012 is warranted.

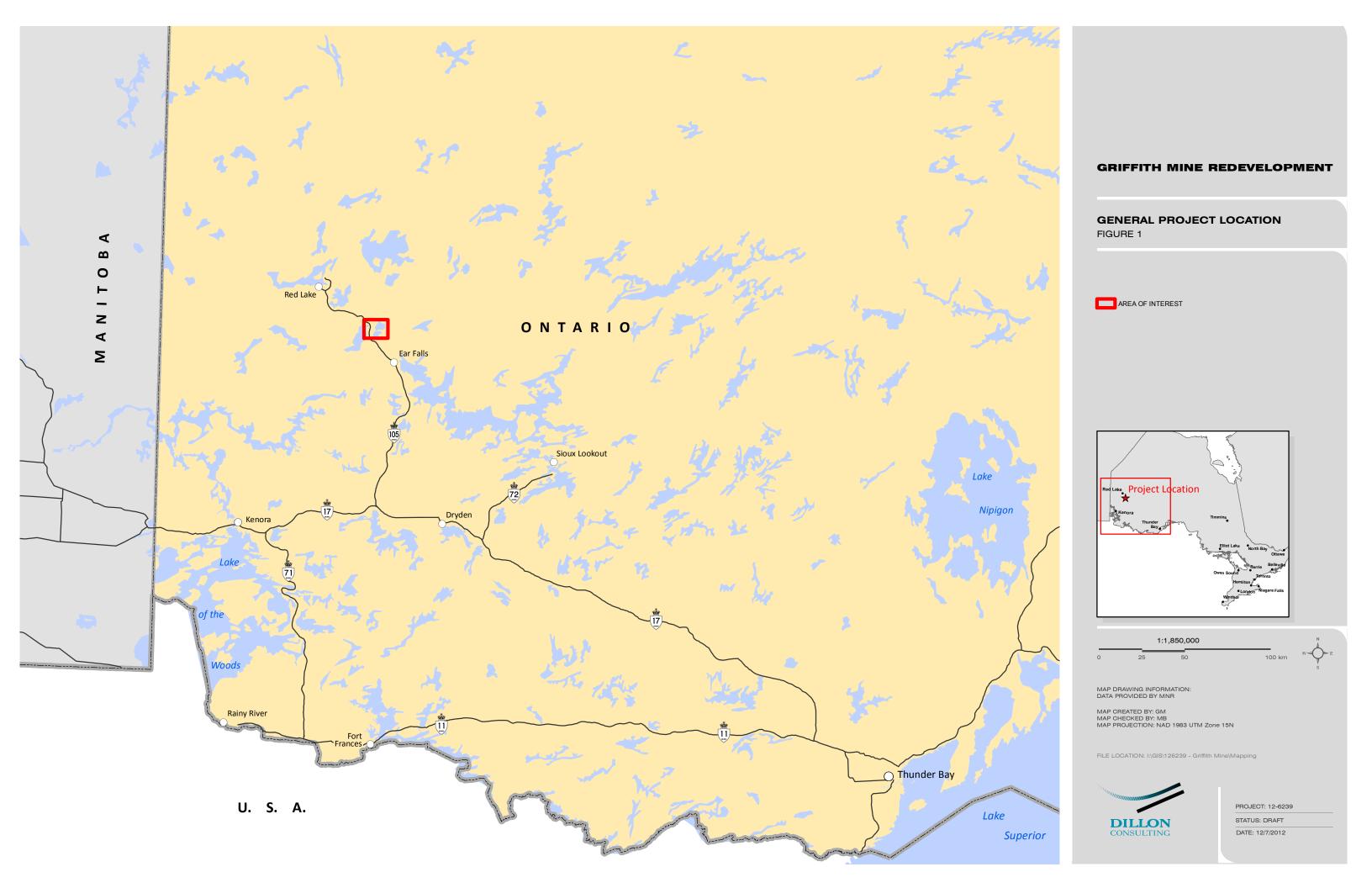
Project Location

The Griffith Mine is located adjacent to Bruce Lake and Provincial Highway 105, about 25 kilometres north of the community of Ear Falls, Ontario (Figure 1). The approximate centre of the Property is located at Longitude 92°22'40"W; Latitude 50°48'37"N (473,440 m E, 5,628,240 m N - NAD 83, Zone 15). The 2,928 hectare property consists of 18 patented contiguous mining claims that will be augmented by surface rights on some of the claims that are owned by the Township of Ear Falls and some former mining claims that have reverted to the Crown. The surface rights for the Crown land will be applied for under the *Mining Act*.

Land Use Information

The Griffith Mine is a permitted use within the provisions of the Township of Ear Falls Official Plan, however, a Zoning By-law Amendment will be required to facilitate the redevelopment of the mine. There is a requirement in the Official Plan that an EA be undertaken to the municipality's satisfaction as a condition of Site Plan Approval under the *Planning Act*, 1990. The existing land use consists of a recreational trail on the property.







There are no permanent residences in close proximity to the mine site. A trapper's cabin has been identified on the northeast shore of Bruce Lake. A number of private recreational camps have been identified in the surrounding area, both upstream and downstream of the mine site. A provincial park as well as a provincial conservation reserve and provincial forest reserve are found in the larger study area. The general land use area surrounding the Project site provides for recreational and resource extractive uses, including hunting, fishing, forestry and mining.

Project Information

The open pit mine operated by Stelco was closed in 1986. The mine site includes: two open pits that are presently filled with water; waste rock storage areas; tailings management areas; containment dams and dykes; and road, rail, water, natural gas and electric infrastructure. The north pit is presently being dewatered under a provincial Permit to Take Water in order to undertake advanced exploration on the ore deposit below the base of the pit. The north pit was designed to a depth of 335 metres but mined to only 102 metres. Based on the present value of the remaining iron ore, it is considered economical to extract the resource and manufacture it into HBI.

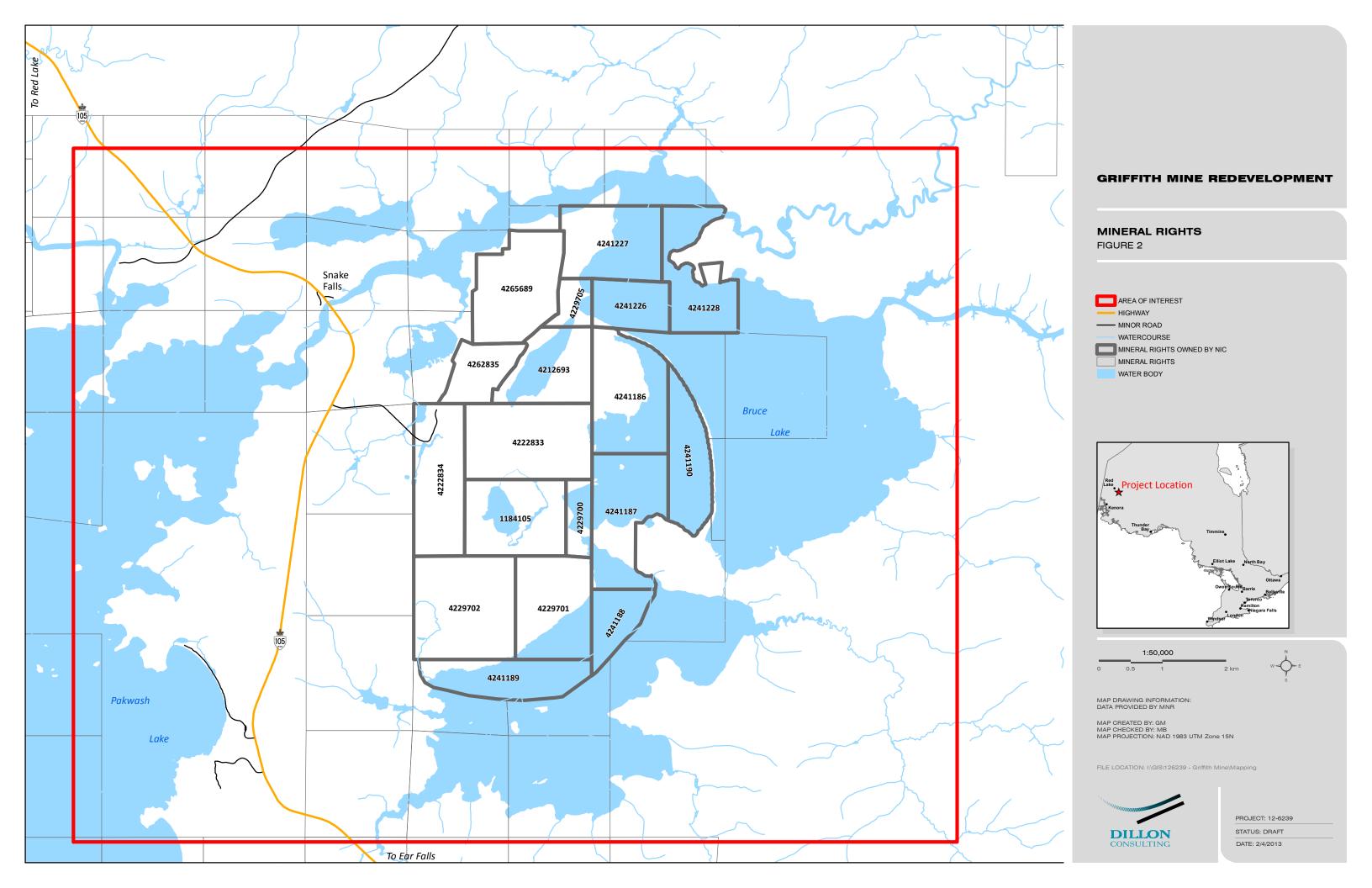
There is not enough iron in the south pit to make it economical to mine and in addition to using the existing north TMA for disposal, the south pit may be used as a secondary TMA. The south TMA will undergo further rehabilitation to improve the water quality of Bruce Lake. The projected lifespan of the re-established mine (north pit) is expected to be approximately 20 years, based on a production rate of slightly more than 4,000 tonnes per day of HBI, from about 16,000 tonnes of iron ore. Mineral rights and surface rights are illustrated on **Figures 2** and **3**.

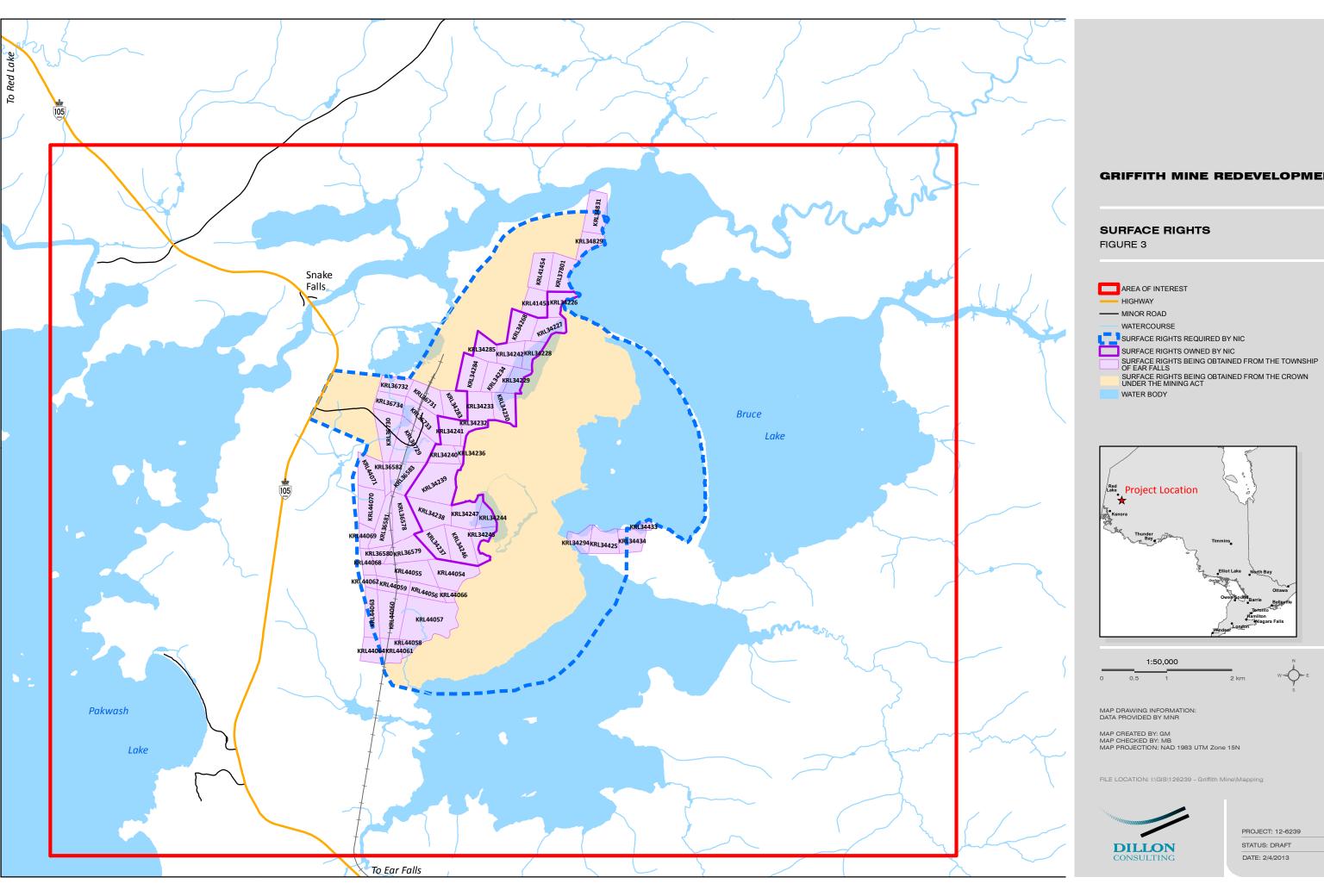
The location of the iron ore processing facility is planned for the same location as the previous one on the site, as is the process water pipeline and intake, the slurry pipeline to the north TMA, the explosives storage and numerous other components of the mine. The final product will be HBI, which contains a high percentage of iron, thus reducing shipping and storage costs.

NIC has negotiated an off-take agreement with the China Railway Materials Import and Export Company consisting of 900,000 metric tonnes of HBI annually to be delivered commencing in 2016. This order represents about two thirds of the annual production of HBI from the Griffith Mine. NIC has also negotiated an off-take agreement with Tianjin Materials & Equipment Group Corporation of China for 60,000 metric tonnes of HBI to be delivered annually starting in 2016. The rest of the production will be offered for sale to the world market.

The redevelopment of the Griffith Mine will take advantage of the existing waste rock storage areas and the least impactful of the two TMAs. The waste rock exhibits very low potential for acid rock drainage (ARD) or metal leaching (ML) and a permit has been issued by the MNR for waste rock use as aggregate. NIC has acquired this permit from the third party licensee. Based on a Site Inspection Report for the Griffith Mine (September 2002), tailings samples collected from the north and south TMAs suggest that the tailings are not acid generating. A complete geochemical study will be completed in accordance with the *Ontario Regulation* 240/00 requirements for more reliable predictions of ML-ARD, and to fulfill closure planning and other permitting requirements.







GRIFFITH MINE REDEVELOPMENT





PROJECT: 12-6239

STATUS: DRAFT DATE: 2/4/2013



The HBI will be transported by CN, under contract to NIC, via a re-established railway connection to the CN mainline, where it will primarily be shipped to the west coast for transport to China. There is also potential for the HBI to be shipped to Thunder Bay for transport by boat to steel mills on the Great Lakes. An existing rail bed, owned by Domtar Pulp and Paper Products Inc. (Domtar), will be reconstructed by NIC in order to accommodate the railway and a road to accommodate existing road users.

NIC will contract the operation of the spur line to CN, but will be responsible for obtaining all necessary approvals and maintaining the line. In order to accommodate the rail and the access road, a minor widening of the right-of-way may be required. Once the mine is no longer operating, the rights within rail right-of-way will revert to Domtar. Based on the preliminary schedule, site preparation and construction activities are anticipated to commence toward the end of 2014, once EA approvals and permits have been obtained. The mine is expected to be operational by mid-2016. However, the actual timeline for the Project will depend in part on environmental approvals, as well as consultations and agreements with aboriginal communities and other stakeholders.

Physical Features

The Project involves the construction, operation, closure and remediation of a past-producing open pit iron ore mine. The proposed Site Plan locates the redeveloped facilities in generally the same locations as in the original mine (e.g. open pit, ore processing facility, waste rock storage areas, TMAs, natural gas pipeline and dykes). The proposed layout of Project components is illustrated on the Conceptual Site Plan (Figure 4). Physical works related to the redevelopment consist of:

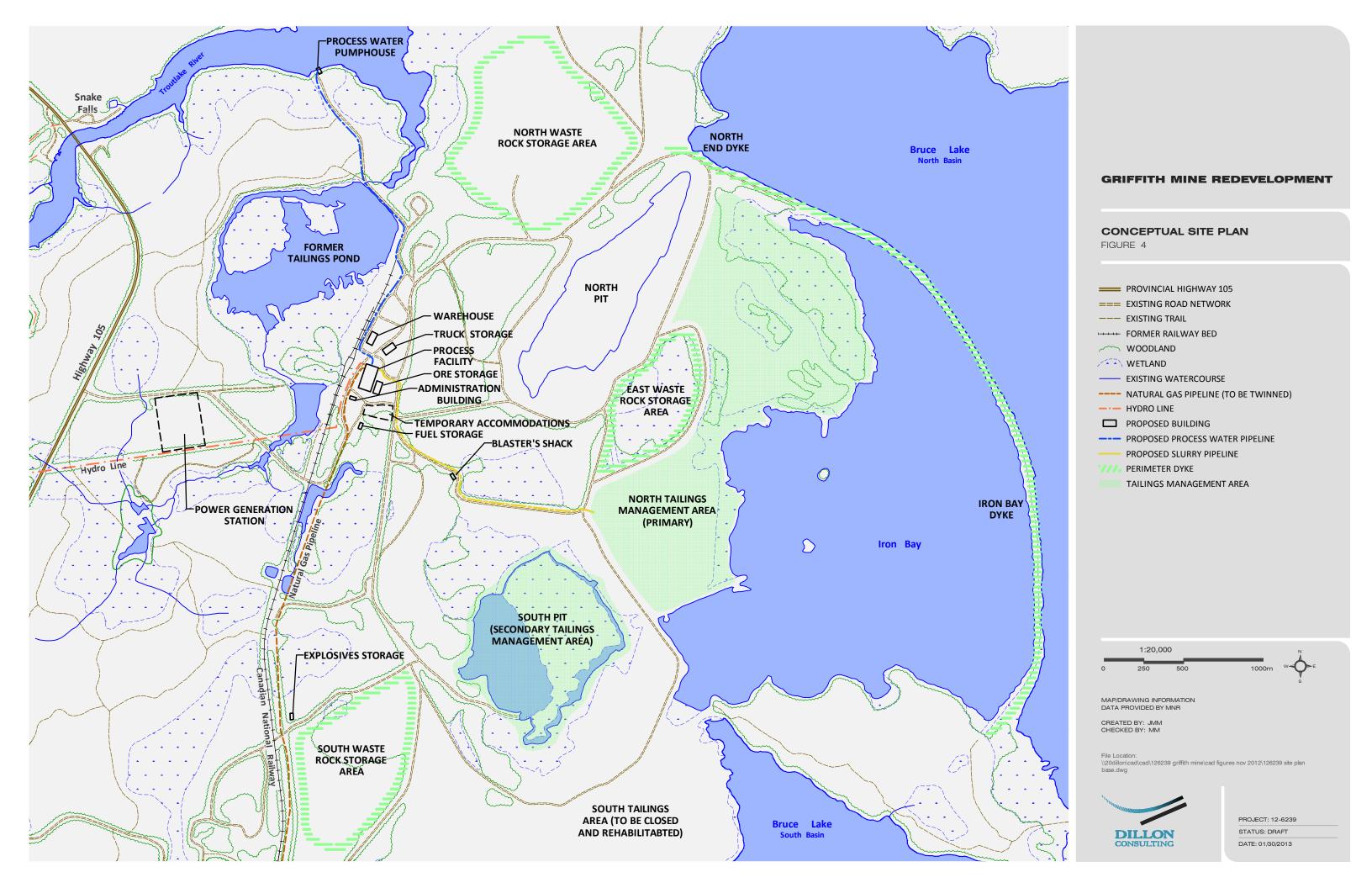
Open pit:

- Dimensions of the north pit at the time of the 1986 closure were 1,828.8 metres long x 609.6 metres wide x 102.1 metres deep (6,000 feet x 2,000 feet x 335 feet). The planned ultimate depth of the pit is 335.3 metres (1,100 feet). Mining of the north pit is proposed to occur at a rate of approximately 32,000 tonnes per day (ore and waste rock combined), with a mine life of approximately 20 years.
- Mineral waste stockpiles and tailings management areas:
 - The Project will process approximately 9 million tonnes of waste rock and generate about 5 million tonnes of tailings per year on average for the entire mine life. Existing waste rock stockpile areas (3) and the north TMA are anticipated to be re-used. The existing south TMA will be rehabilitated to improve the water quality in Bruce Lake. The north TMA (Iron Bay) will be the primary TMA; the area of the south pit may be used as a future TMA should it be required.
- Primary crusher and processing plant:
 - The processing plant may be situated in one or more separate buildings. Ore will be processed on-site to produce HBI for sale under established agreements and to the global market. The facilities will be generally located in the same area as previously used so as to take advantage of existing road, water and natural gas pipeline infrastructure. A temporary HBI storage area will also be required.

Explosives storage:

 An explosives storage facility will be located on-site in the same general area as previously situated.





• Buildings and infrastructure:

Beyond the processing plant, buildings anticipated to be constructed include an administrative building to house offices, meeting rooms, lunch and locker rooms, restrooms, first aid and emergency response equipment, an equipment repair facility, a pumphouse and a fuel storage facility. A temporary accommodation complex (mobile and trailers) will be located on-site during the construction phase.

Associated facilities:

 The facilities anticipated to be located on-site include lay down area(s), access roads and non-hazardous waste facilities. These facilities will be supported by related piping and power infrastructure as required.

Related Infrastructure

Infrastructure required to support the redevelopment includes:

- Electrical power for construction and operations (approximately 60 MW) is proposed to be supplied by a natural gas-fired power plant to be located on the site (Figure 4). The power plant would be owned, permitted, constructed, operated and decommissioned by a third party. Alternatively, an electrical transmission line capable of supplying the needs of the mine would be constructed. The transmission line, to be constructed by a third party, would originate in Dryden and parallel the existing 115 kV line to the mine site, using the existing right-of-way to the greatest extent possible. While NIC would obtain all approvals required to construct the line, once it was energized, it would be turned over to Hydro One to own, operate, maintain and ultimately decommission. A determination regarding the preferred power option will be made during the EA when environmental and economic considerations have been fully addressed.
- An emergency diesel generator will be located on-site to handle basic power requirements in case of a power interruption, but would not be capable of operating all mining and processing operations.
- A new natural gas pipeline will parallel the existing pipeline to the site from the gate station on the TransCanada Pipelines mainline to the south. The additional gas pipeline will be owned, constructed and operated by Union Gas (the franchisee for the area).
- A railway spur line, spanning approximately 110 kilometres between the mine site and the CN mainline, is required to be reconstructed to ship the HBI to markets. NIC would be responsible for securing all approvals and would construct, maintain and decommission the rail spur, which will be located within an existing rail right-of-way under an agreement with Domtar (the existing owner of rights to the rail bed). The HBI will be transported south by CN, under contract to NIC. Because the rail bed presently serves as an access road for Domtar, and is known to be also accessed by the general public, there will be provision to maintain an access road within the right-of-way.

Activities

Activities that will be carried out during the construction stage include:

- Site preparation, including clearing, stripping, grubbing and removal of unwanted debris from the site;
- Re-establishment of the existing road, railway and processing infrastructure including water and slurry pipelines and explosives storage;
- Construction of a new natural gas pipeline;





- Construction of a 60 MW power plant or electric transmission line from the Dryden area; and
- Construction of buildings required for mine operation.

Activities that will be carried out during the operations phase are anticipated to include:

- Ore and mine rock extraction (open pit);
- Ore processing;
- Production of HBI;
- Mineral waste management (stockpiling of waste rock and storage of tailings);
- Temporary storage of HBI until shipment south via rail to connect with the CN mainline to the west coast and potentially to Thunder Bay if markets develop in the Great Lakes area;
- Ongoing environmental management and monitoring activities; and
- Progressive site reclamation where practical.

Decommissioning activities will consist of the closure and reclamation of the various Project components as per a future approved Closure Plan. Ongoing environmental monitoring and site management will occur as needed after decommissioning activities are completed.

Figure 5 illustrates the conceptual project development schedule.

	2012			20	013			2014			2015			2016						
ITEM	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Dewater Permit Acquired																				
Exploration Agreement with FN																				
Dewater First 10% of Griffith North Pit		-																	_	_
Dewater Remainder of Griffith North Pit										1										+
Griffith Drilling																				
Griffith Resource and Davis Tube																				
Preliminary Economic Assessment																				
Bankable Feasibility Assessment																				
Bulk Sample																			+	
Concentrate, pellets and HBI testing																				
Preparation of Baseline Studies																				
Preparation of Project Description																				
Preparation of EA and Permits																				
Approval of EA and Other Permits																				
Take Claims to Lease																				
Site/Infrastructure Construction																				

Key Environmental Aspects

The Project site is considered to be a brownfield site. It is predominantly situated on dry ground with gentle topography, interspersed by two open pits and forest screens. Vegetation varies from grasses to immature





coniferous and deciduous trees. From a natural environment perspective, the existing brownfield site is regenerating naturally. Since large portions of the area are comprised of waste rock and tailings, there is very little soil cover on the site. Mine redevelopment will require removal of existing immature vegetation in the waste rock storage areas and other components of the former mine. **Figure 6** provides an overview of natural environment and human features in the vicinity of the Project site.

Fisheries and Oceans Canada (DFO) has confirmed that the north pit is not considered fish habitat. The top 25 metres of the pit are presently being dewatered under a provincial Permit to Take Water in order to undertake advanced exploration. The MOE has deemed water quality in the first 25 metres of water in the north pit to be acceptable for direct discharge into Bruce Lake. The remainder of the pit will be dewatered at a later date, however, it will require aeration in order to be directly discharged to Bruce Lake, as the bottom levels are anoxic.

The Iron Bay (north) tailings management area is physically separated from Bruce Lake by a perimeter dyke. Studies will be undertaken during the EA to make a final determination upon whether the Iron Bay TMA represents a recreational fishery. Considering that Iron Bay was historically part of Bruce Lake, it is likely that Iron Bay would be deemed fish habitat under current legislation. As such, a regulatory amendment to list the water body on Schedule 2 of the Metal Mining Effluent Regulation is expected to be required. No species of concern or other significant natural resource values have been documented on-site to date. Baseline environmental studies are being undertaken for both the terrestrial and aquatic environments.

Atmospheric emissions are expected during construction, operations and decommissioning phases of the Project. For the construction phase, the atmospheric emissions are associated with typical construction activities, including surface preparation (e.g. scraping, grading, and road construction), wind erosion, material transfer, mobile equipment and stationary combustion sources. For the operations phase, the Project activities that are associated with atmospheric emissions include drilling, blasting, material handling, transportation, crushing, screening, HBI processing, mobile equipment and stationary combustion sources, including the natural gas-fired generating station. The atmospheric emissions during the decommissioning phase of the Project are associated with activities that are similar to the construction phase. The majority of the emissions are expected during the operations phase of the Project and emissions during all phases of the project will contribute greenhouse gasses. All emission sources during operations will be modelled to ensure regulatory requirements are adequately addressed.

Solid and liquid hazardous wastes that can be expected to be generated during the construction, operations and decommissioning phases of the mine include hydrocarbons from used oils, lubricants and additives (Table 1). There is also potential for hydrocarbon spills from fuel handling. Explosive mixtures may represent hazardous wastes. Proper containment measures will be undertaken to contain and remove any hazardous wastes to avoid negative effects the natural environment and monitoring will be undertaken in accordance with applicable legislation. The tailings have demonstrated a low potential for ARD or ML and thus are not anticipated to constitute a hazardous waste. Further studies will be undertaken during the EA to confirm this. Should ARD or ML present an issue, proper containment and treatment will be undertaken.

The Project site is located in an area of the Boreal Forest that is dominated by natural sounds as well as road noise (Highway 105), forestry activities and outdoor recreation. Higher levels of noise are expected to occur occasionally during blasting activities. Noise modelling will be carried out to ensure that noise related effects are considered and addressed through the engineering design phase and that regulatory requirements are maintained.



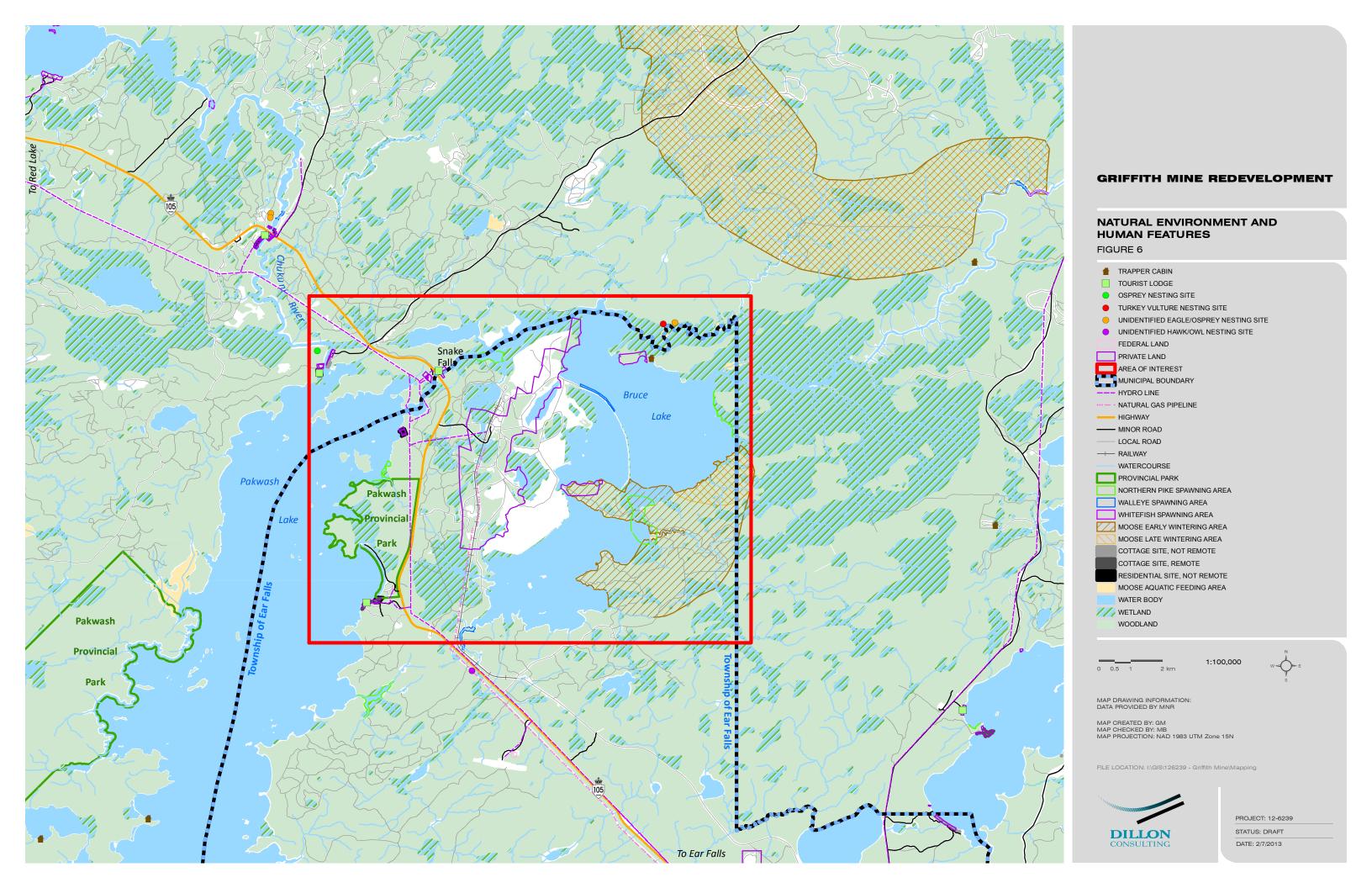




Table 1: Anticipated Waste Streams

Waste Stream	Anticipated Annual Volumes	Potential Locations for Disposal	Other Notes
Solid Wastes			
Municipal Solid Waste	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility	Source separated either on-site or at disposal location
Recyclables	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility	Reduce, Reuse, Recycle, and Recover. Source separated either on-site or at disposal location
Solid Non-Hazardous Waste (Domestic and Industrial)	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility	To be stockpiled on-site
Cleared Brush	TBD	Burned	
Hazardous Waste	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility	To be stored in bermed and lined facility/container
Process Solids Fine Tailings	TBD	TMA	
Liquid Wastes			
Sanitary Wastewater (i.e. Sewage) Construction	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility or treated and disposed via approved on-site facility	Collected in portable infrastructure for approximately 1,000 construction workers (at peak)
Sanitary Wastewater (i.e. Sewage) Operations	TBD	Treated and disposed via approved on-site facility (i.e. septic tank and tile field)	
Vehicle Wash Facility Wastewater	TBD	Treated and disposed via approved on-site facility (i.e. septic tank and tile field)	
Site Runoff (i.e. Storm water) Construction	Runoff volumes from hard surfaces - TBD	Temporary collection areas and/or north TMA	
Site Runoff (i.e. Storm water) Operations	Runoff volumes from hard surfaces - TBD	Collection in ditches to Storm Water Management Pond(s) Discharge to north TMA or infiltration	Treatment depends on quality
Process Plant and Tailings Water	TBD	North TMA and south pit, as necessary	
Hazardous Liquid Waste	TBD	Transported via MOE approved hauler for disposal at an MOE approved facility	

Tailings will be transferred to the TMAs via a slurry pipeline. The existing north TMA is expected to provide sufficient capacity for tailings storage through the life of the mine. The south pit may be considered as a





secondary TMA in case further tailings storage is required. The geology in the area has low potential for sulphides, meaning that the likelihood of ARD and ML is low (Golder Associates, 1991). Further, the results of a site inspection conducted by MNDM indicated that tailings samples collected from the north and south TMAs suggest that the tailings are not acid generating. For these reasons, a low potential for ARD or ML is expected.

The Project site is located within the Winnipeg River Drainage Basin and the English River sub-basin. There are known commercial fishing areas in the vicinity of the Project site. Recreational fishing is popular in areas adjacent to the Project location, specifically in Bruce Lake and through the Troutlake River to East Lake and Pakwash Lake. While there are fish found in the Iron Bay TMA, there is no apparent connection between this area and Bruce Lake. Further, there is a high degree of turbidity in the water in Iron Bay (i.e. colloidal clay particles in suspension), which is not apparent on the other side of the dyke in Bruce Lake. Further studies will be undertaken to confirm the lack of connectivity and remediation will be undertaken to ensure that no connection in future will be possible.

Anticipated Environmental Impacts

Potential negative environmental impacts associated with the Project include the following:

Physical Environment

- Surface and groundwater quality and flow could be affected through clearing, accidental spills, suspended matter, mining effluent and deepening the existing open pit;
- There could be an increase in particulate matter, CO₂, CO, NO_x, and volatile organic compounds resulting from blasting, emissions from machinery and iron ore processing; and
- There could be an increase in noise levels resulting from operation of ore processing machinery, related infrastructure and vehicles.

Natural Environment

- A potential loss or fragmentation of vegetation adjacent to the rail right-of-way to accommodate potential widening;
- A potential loss or fragmentation of terrestrial habitats in proximity to the mine;
- Potential disturbance of terrestrial and avian species near the mine due to noise; and
- A potential loss of fish and fish habitat in the existing Iron Bay TMA.

Human Environment

- Loss of the recreational interpretive trail in the vicinity of the mine;
- Potential positive environmental impacts associated with the project include:
 - Increase in job creation and a positive stimulous to the economies of Red Lake, Ear Falls,
 Dryden, Kenora and a number of aboriginal communities; and
 - o Improvement in water quality in the south basin of Bruce Lake through remediation of the effects of the former Griffith Mine.

Table 2 summarizes anticipated interactions of the Project with the environment.





Table 2: Potential Project Interaction Matrix

Environmental Features	Physical E	nviron	ment	Natura	al Enviro	nment						luman ironment						
Activity	Physiography, Topography and Surficial Geology	Surface water	Ground water	Fish and Aquatic	Terrestrial (Vegetation)	Wildlife and Species At Risk	Noise	Vibration	Climate Change & Air Quality	Solid Waste	Liquid Waste	Existing and Planned Land Use	Aboriginal Peoples	Cultural Heritage				
Site Preparation			•															
Clearing/Grubbing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓				
Re-establishment of Road Network	✓	>		✓	✓	✓	>		√	✓		✓	✓	>				
Construction of Gas Pipeline	✓	>	✓	✓	✓	✓	>	✓	√	✓	✓	✓	✓	>				
Construction of Transmission Line	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Construction of Power Plant	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Construction of Water Pipeline	✓	√	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				
Construction of Slurry Pipeline	✓	√	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓				
Construction of Facilities Buildings	✓	√			✓	✓	✓	✓	✓	✓		✓	✓	✓				
Pit Dewatering		✓		✓			✓		✓		✓		✓	✓				
Reconstruction of Rail Line	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓				
Operations																		
Open Pit			✓				✓	✓	✓	✓	✓		✓					
Facilities Buildings			✓				✓			✓			✓					
Waste Rock Storage	✓	>	✓	✓						✓			✓					
TMAs	✓	✓	✓	✓						✓			✓					
Ore Processing				✓			✓	✓	✓		✓		✓					
Slurry Pipeline		✓	✓	✓							✓		✓					
Gas Pipeline			✓										✓	✓				
Fuel Storage Area		✓	✓								✓							
Blasting			✓			✓	✓	✓	✓	✓		✓	✓					
Power Plant							✓						✓					
Transmission Line							✓						✓	✓				
Rail Line							✓	✓					✓	✓				
Equipment Maintenance		✓	1				✓				✓							
Stormwater Management		✓																
Closure and Rehabilitation	1																	
Removal of Facilities	✓	✓					✓	✓		✓		✓	✓					
Remediation of TMAs		✓	✓		✓								~					

 $\underline{\textit{Note}} \colon \checkmark \text{ indicates potential interaction}$



Parties Consulted During the Preparation of the Project Description

Aboriginal Consultation Activities

Consultations with the MNDM, Aboriginal Affairs and Northern Development Canada (AANDC) and the Agency have identified that there are First Nation communities in the area surrounding the Griffith Mine that may have an interest in the Project. **Figure 7** illustrates First Nation communities in northwestern Ontario, including their proximity to the Project site. NIC has initiated preliminary consultation activities with the following First Nations:

- Grassy Narrows First Nation;
- Lac Seul First Nation;
- Cat Lake First Nation;
- Mishkeegogamang (New Osnaburgh);
- Wabaseemoong First Nation;
- Slate Falls First Nation;
- · Wabauskang First Nation;
- · Métis Nation of Ontario; and
- Grand Council of Treaty 3.

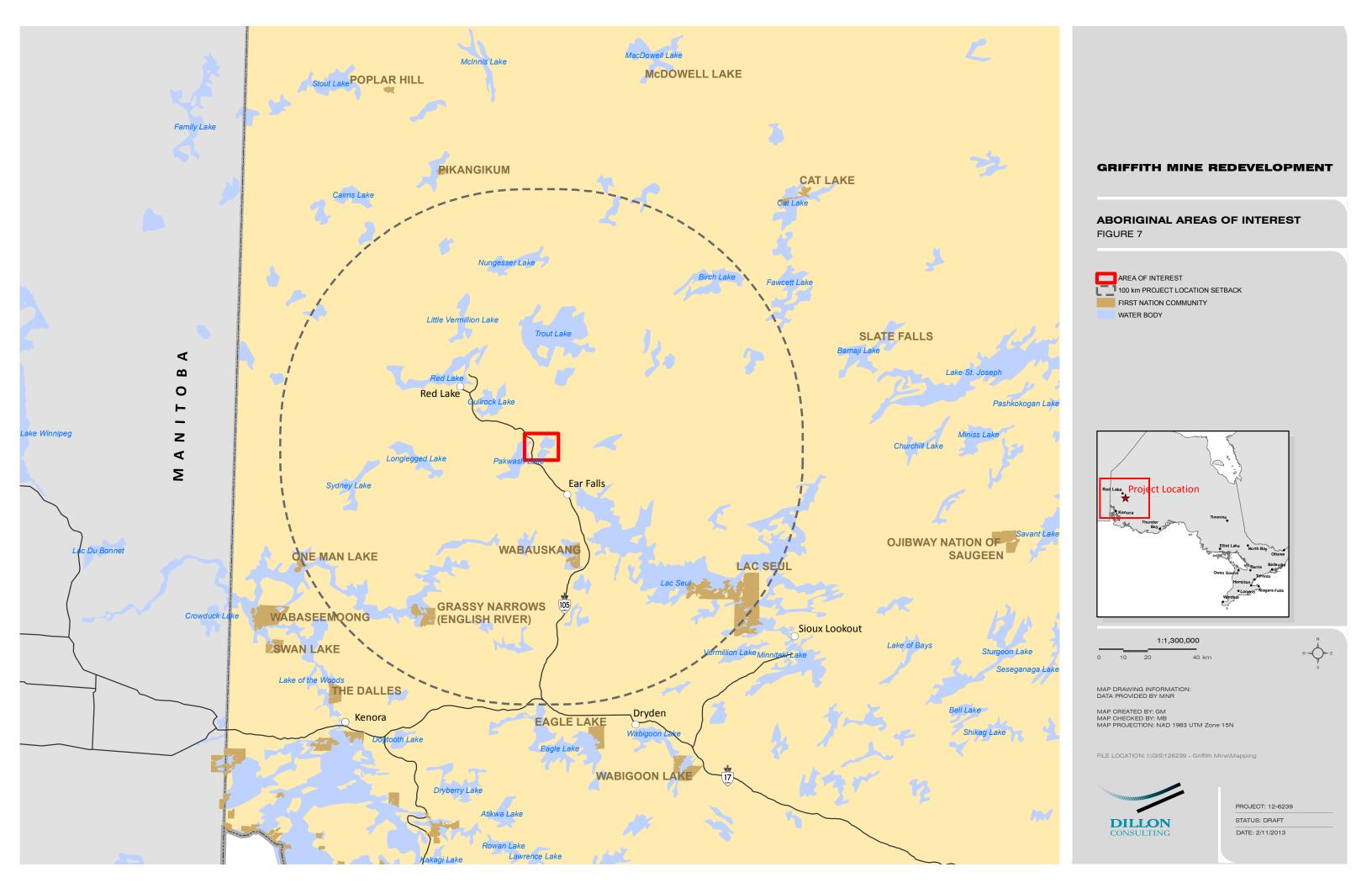
NIC met with the Wabauskang First Nation on a number of occasions and provided funding for the First Nation to undertake a peer review of their Permit to Take Water application. They have also provided economic opportunities in the form of contracts to the local sawmill on the First Nation for core boxes and lumber for other uses. It is anticipated that a skills assessment will be undertaken and Wabauskang members will assist in the data collection stage of the EA by supplying staff and equipment (e.g. geologist's assistants, boats, motors). NIC is in discussion with Wabauskang First Nation regarding details of a future memorandum of understanding (MOU) and benefits agreement. Wabauskang has expressed concerns in the past with respect to the Crown's "duty to consult" and the Permit to Take Water that was approved by the MOE.

NIC met with Lac Seul First Nation on a number of occasions and is in the process of negotiating a MOU. This consultation, as well as future engagement with additional aboriginal communities identified by AANDC, will continue throughout the preparation of the EA, as well as the development, operation and decommissioning of the Project.

NIC met with the former Chief of the Grand Council of Treaty 3 and a Mining Information Officer of Treaty 3 in January 2012. At that time, representatives of Treaty 3 did not express direct concerns with the Project, and advised that NIC contact each First Nation community individually as the Council does not speak on behalf of them. NIC assured the Chief that these First Nations had been contacted and their engagement would continue to be sought throughout the process.

The Métis Nation of Ontario (MNO) has been contacted and will continue to be afforded opportunities to participate in the EA and the redevelopment of the mine.







No land claims have been identified in the area, however, most of this area of northwestern Ontario is claimed to be the traditional territory of the Wabauskang First Nation. The Project is also located within the Lake of the Woods/Lac Seul Traditional Harvesting Territory (Métis Nation of Ontario, 2012). Details related to traditional use have not been identified through aboriginal consultations to date. NIC is committed to obtaining any such information through consultation activities with First Nation and Métis communities. Any available information relating to traditional land use and traditional knowledge will be considered in the EA of the proposed undertaking.

Although details related to traditional use have not been identified through aboriginal consultations to date, potential effects on aboriginal peoples include:

- Potential effects on aquatic populations and habitat;
- Potential effects on traditional harvesting area;
- Potential effects on archaeological resources (expected to be low due to previous disturbance);
- Potential presence of native medicines;
- Potential effects on traditional canoe/portage routes; and
- Potential socio-economic effects (i.e. employment opportunities).

From aboriginal consultation undertaken to date and direction from the Agency, consultation will be focused on:

- · Wabauskang First Nation;
- Lac Seul First Nation;
- Grassy Narrows First Nation; and
- Métis Nation of Ontario.

Aboriginal engagement with First Nations and Métis identified by the Agency and MNDM will continue throughout the preparation of the EA, and through the development, operation and decommissioning of the mine. Following the submission of the PD, aboriginal communities identified will be notified and extended an offer to meet with NIC to obtain further information on the Project and express any comments and/or concerns related to their traditional territory.

Public and Stakeholder Consultation

Consultation with federal, provincial, and municipal regulatory agencies has been initiated and will continue throughout the preparation of the EA, as well as the development, operation and decommissioning of the mine (**Table 3**). Consultation activities conducted thus far included the following stakeholders:

- Municipality of Red Lake;
- Township of Ear Falls;
- City of Dryden;
- Ministry of Northern Development and Mines;
- Department of Fisheries and Oceans/Fisheries and Oceans Canada;
- Environment Canada;
- Canadian Environmental Assessment Agency; and
- Pakwash Lake Camp Owners Association.





Table 3: Non-Aboriginal Consultation Review

Date	Participants	Activity Summary
Summer 2010	Cameron Tymstra, NIC MNR MOE DFO MNDM	All agency meeting to notify ministries of the proposed redevelopment of the Griffith Mine and seek preliminary feedback
Spring 2012	Basil Botha and Cameron Tymstra, NIC Mayor, Red Lake Economic Development Officer, Red Lake	Meeting and conference call
Spring 2012	Basil Botha and Cameron Tymstra, NIC Mayor, Ear Falls	Meeting and conference call
Spring 2012	Basil Botha and Cameron Tymstra, NIC Mayor, Dryden Economic Development Officer, Dryden	Meeting and conference call
October 22, 2012	Cameron Tymstra, NIC Approximately 30 members of the community (Red Lake and Ear Falls), including Mayors and Councillors	NIC hosted a "Pump Fest" gathering in Ear Falls to celebrate the start of dewatering of the old pit, as well as to thank members of the community and local politicians that work with NIC and/or support the Project
December 5, 2012	Cameron Tymstra, NIC Matt Hoffmeister, MOE Member of the Pakwash Lake Camp Owners Association	Members of the Camp Owners Association identified concerns regarding water quality as a result of past mining operations. NIC informed the PLCOA that there is a monitoring program in place and offered to forward the Monitoring Results Report as part of the Phase I dewatering to their attention.

A copy of the PD has been sent to the Township of Ear Falls for public review. NIC has kept in close contact with the Township and sponsored a community "Pump Fest" upon commencement of the pumping of the north pit. Frequent articles in the *Northern Sun News* and in company press releases appeared relating to the Griffith Mine redevelopment.

Government agencies involved in the review of the Project Description and/or the EA include:

Federal Government

- Aboriginal Affairs and Northern Development Canada;
- Canadian Environmental Assessment Agency;
- Environment Canada;
- Department of Fisheries and Oceans/Fisheries and Oceans Canada;
- Health Canada;
- Natural Resources Canada; and
- Transport Canada.



Provincial Government

- Ministry of Aboriginal Affairs;
- · Ministry of Economic Development and Trade;
- Ministry of Energy;
- Ministry of Labour;
- Ministry of Natural Resources;
- Ministry of Northern Development and Mines;
- Ministry of the Environment;
- Ministry of Tourism, Culture and Sport;
- Ministry of Transportation; and
- Ontario Provincial Police.

Municipal Government

- Township of Ear Falls;
- Municipality of Red Lake; and
- City of Dryden.

The following stakeholders are considered to have potential interests in the Project will continue to be consulted with through the EA process:

Private Industry

- Canadian National Railway Company;
- Hydro One Networks Inc.;
- Union Gas;
- Domtar;
- Private trap line holders; and
- Bait fish licence holders.

General Public and Interest Groups

- Keewatin-Patricia District School Board;
- Northwest Catholic District School Board;
- Northwestern Ontario Associated Chambers of Commerce;
- Chukuni Communities Development Corporation;
- Red Lake Margaret Cochenour Memorial Hospital;
- Red Lake Social Services; and
- Ontario Rivers Alliance.

Tourist Operators

- Northern Ontario Tourist Outfitters Association;
- Pakwash Lake Camp Owners Association;





- Pakwash Lake Camp;
- Canada North Lodge;
- Snake Falls Camp;
- Trout River Camp;
- Northwoods Bay Resort;
- Pakuni Lodge;
- Brownlee's North Lodge;
- Gold Pines Camp;
- Goose Bay Camp;
- Wenasaga Lodge;
- Woman River Camp;
- Woman Lake Lodge;
- KaBeelo Lodge Inc.;
- River Bed and Breakfast;
- Cherob Resort; and
- Rich's Minnows.

The municipalities of Ear Falls, Red Lake and Dryden have expressed support for the Project as a significant economic driver for their communities. Stakeholder consultation completed to date and plans for future engagement are discussed in greater detail in **Sections 6** and **7** of the PD. NIC is committed to providing regular progress reports during the EA process, and through the construction and operations of the mine. These reports will be shared with the general public, agencies and aboriginal groups through council presentations, newsletters, notices and public meetings.

Public Agency Involvement

The Agency has confirmed that there are no regional studies in the vicinity of the Project. Specific regulatory and permitting requirements under federal, provincial and municipal jurisdiction are described in **Table 4**.

Federal Involvement

Federal funding is not proposed for the Project and no Project components are proposed on federal lands or First Nation Reserves. The review of the PD will allow the Agency to make a determination as to the applicability of CEAA 2012.

Federal acts that may apply to this project include:

- Canadian Environmental Assessment Act, 2012 (it is anticipated that a Federal EA will be required, with authorizations expected for the Metal Mining and Effluent Regulations under the Fisheries Act);
- A Schedule 2 Amendment under the *Fisheries Act* may be required to authorize the destruction of fish habitat; and
- An explosives storage facility will be constructed on-site, as well as a potential explosives
 manufacturing facility. A licence from Natural Resources Canada (NRCan) would be required under
 paragraph 7(1) of the Explosives Act while the explosives storage facility will require approval under





Section 6(1) of the *Canadian Transportation Act* for the construction of a storage facility with a capacity of less than 200 tonnes.

Provincial Involvement

The redevelopment of the Griffith Mine or any other mine development in Ontario is not designated under the Ontario *Environmental Assessment Act*. The establishment of a natural gas-fired generating station on-site (owned, constructed and operated by others) will require an EA under *Ontario Regulation 116/01* (the Electricity Projects Regulation).

A new natural gas pipeline to supply the mine will require an EA under the *Ontario Energy Board Act*. Although the pipeline will be located on Crown land for the majority of the route, it will not trigger *the MNR Class EA for Resource Stewardship and Facility Development Projects* since Section 2.2.13 (1) of the MNR Class EA provides an exemption for hydrocarbon pipelines that have been approved by the National Energy Board or the Ontario Energy Board. NIC has acquired the aggregate license for the use of previous waste rock on-site from a third party. NIC intends to apply for additional surface rights adjacent to the mine under the *Mining Act*, rather than the *Public Lands Act*, thus the MNR Class EA will not be triggered.

Municipal Involvement

The redevelopment of the Griffith Mine will require an EA as a condition of Site Plan Approval from the Township of Ear Falls under the Ontario *Planning Act*. Section 4.6.3.1 of the Township's Zoning By-law requires an "environmental impact assessment...for extensive new commercial, industrial and recreational development projects..." Section 4.6.3.3 of the Zoning By-law sets out the scope of the Environmental Impact Assessment (EIA) required. Section 4.6.3.4 of the Zoning By-law requires that the EIA be submitted to "Council and to all other parties who can justify an interest in the matter." Since numerous federal and provincial agencies have mandates that encompass activities associated with the re-establishment of the Griffith Mine, it is clear that they would be involved with scoping and review of the Project under a municipal EA process.





Table 4: Summary of Potential Permit and Approval Requirements

Agency	Act and/or Regulation	Permit/Approval	Applicability to the Griffith Mine
	Building Code Act Section 8, Local Municipal By-laws	Building Permit	Buildings will be constructed at the Mine Site.
Local Municipality	Planning Act, Section 16, 34(1) and 41	Official Plan Amendment and Site Plan Control	 Official Plan requires an amendment to permit reuse of the mine. An EA is required as part of Site Plan Control.
	Municipal Act	Fire Permit	Permit may be required to burn brush associated with site clearing.
	Municipal Act	Road Permit	 Permit associated with existing road upgrades.
Local Municipality or Ontario Ministry of Natural Resources (MNR)	Fire Protection and Prevention Act, Section 12	Fire Code requirements	Project will need to meet Fire Code at all locations
_ocal Health Unit	Health Protection and Promotion Act, O. Reg. 554/90	Notice of Camp Opening	Will likely be required for the Accommodations Complex at the Mine Site (required for camps with a capacity greater than 5) during the construction phase.
	Ontario Building Code, Part 8	Permit for septic tank at camp location	May be required.
	Aggregate Resources Act	Aggregate Permit/License	Aggregate permit already issued to use blast rock for aggregate.
	Public Lands Act, O. Reg. 973-90	Land Use Permit	Not required as surface rights to be applied for under the <i>Mining Act</i> .
	Public Lands Act, Section 20	License of Occupation	Not required as surface rights to be applied for under the <i>Mining Act</i> .
	Public Lands Act, O. Reg. 975/90, O. Reg. 543/96	Work Permit	Not required as surface rights to be applied for under the <i>Mining Act</i> .
	Lakes and River Improvement Act, Sections 14 and 16	Authorization for Water Crossing	Not required as roads are existing.
MNR	Ontario Aggregate Resources Act, Part V Aggregate Permits, O. Reg. 244/97	Permit for Aggregate Pit/Quarry	Not required as approval previously given by MNR to use blast rock as an aggregate source
	Crown Forest Sustainability Act, Part III – Forest Resource Licenses	Forest Resource License – Cutting Permit for Timber	Not applicable as there is no Crown timber at the mine site.
	Endangered Species Act, Sections 16 to 20	Permits and Agreements	There is potential for listed species. The inventory will confirm presence. The EA will need to demonstrate that if listed species are present, reasonable alternatives, including those that would not adversely affect the species, have been considered, and reasonabl steps to minimize adverse effects are taken.
	Fish and Wildlife Conservation Act, Part VI Licenses and Other Authorizations	Authorization/Permit for collection of fish for testing	Baseline studies and consultation with MNR wi determine likelihood of requirement for authorization. An application for a Scientific Collectors Permit will be submitted.
Ontario Ministry of Transportation (MTO)	Environmental Assessment Act, Part II.1 – Class Environmental Assessments	Class EA for Provincial Transportation Facilities	Not applicable for private roads at the mine site Entry to mine site from Highway 105 exists.





Agency	Act and/or Regulation	Permit/Approval	Applicability to the Griffith Mine
	Public Transportation and Highway Improvement Act Section 31, 34 and 38	Entrance Permit	May be required for upgrading access to Highway 105.
	Environmental Protection Act, Part II.1	Environmental Compliance Approval	Various sources of air and noise associated with the mine development and operation. Required for tailings management, sewage (domestic wastewater) treatment, and stormwater management.
	Environmental Protection Act, O. Reg. 560/94 and O. Reg. 561/94	Effluent Monitoring and Effluent Limits – Metal Mining Sector and Industrial Mining Sector	Applicable (<50 m³ /day of process effluent, cooling water or overflow effluent)
	Environment Protection Act, O. Reg. 222/07 and O. Reg. 224/07	Environment Penalties and Spill Prevention and Contingency Plans	Detailed spill identification and response plans required for Mine Site.
Ontario Ministry of the Environment (MOE)	Safe Drinking Water Act, O. Reg. 170/03 and O. Reg. 248/03	Environmental Compliance Approval – Municipal and Non- municipal Drinking-water Systems (transitioning to the Drinking Water Works Permit)	May be required for Accommodations Complex at Mine Site, depending on capacity and servicing requirements.
	Ontario Water Resources Act, Section 34, O. Reg. 387/04	Permit to Take Water	 Applied for PTTW to dewater the north pit in order to undertake detailed exploration. First stage (top 25 m) approved August 15, 2012.
	Environmental Assessment Act, O. Reg. 116/01	Electricity Projects Regulation (Guide to EA Requirements for Electricity Projects)	Required to facilitate the development of energy generation on-site. Required to facilitate the construction of an electric transmission line.
	Environmental Protection Act, O. Reg. 347/90	Generator Registration Number	Required for waste management.
Ontario Ministry of Labour	Occupational Health and Safety Act, O. Reg. 854/90	Pre-development review process	Mine site will require safety and procedures review prior to Project development.
Laboui	Occupational Health and Safety Act, O. Reg. 213/91	Notice of Project under Section 23(2)	Will be applicable to the mine site and associated facilities.
Ontario Energy Board	Ontario Energy Board Act, Section 92(1)	Leave to construct a Power Transmission Line (order Pursuant to the OEB Act)	May be required if NIC planned their own transmission line as opposed to Hydro One making the application.
	Mining Act, Sections 91(1) and (3)	Domestic Processing Exemption	Not applicable as all processing is within Canada.
Ontario Ministry of Northern Development and	Mining Act, Sections 140 and 141, O. Reg. 240/00	Mine Closure Plan	Will be required for the mine.
Mines (MNDM)	Mining Act, O. Reg. 240/00	Public Notice of Project Status	Public Notice of Project Status will be provided.
	Mining Act, Section 81	Application for lease of Surface Rights	Required for Crown land adjacent to the east side of the north pit.
Ontario Ministry of Tourism, Culture and Sport (MTCS)	Ontario Heritage Act, Part IV – Conservation of Resources of Archaeological Value	Archaeological Assessment	Will be completed as part of the EA
Transport Canada	Transportation of Dangerous Goods Act, Section 31, Transportation of Dangerous	Permits of Equivalent Level of Safety	All activities will be conducted in a manner consistent with the Act.





Agency	Act and/or Regulation	Permit/Approval	Applicability to the Griffith Mine
	Goods Regulations Part 14		
	Navigable Waters Protection Act, Part I – Approval of Works, Navigable Waters works Regulations	Approval of Works	Not applicable due to changes in the Act.
Canada Transportation	Canada Transportation Act, Part III – Railway Transportation	Re-establishment of railway line	Reconstruction of approximately 110 km of tracks within an existing rail corridor.
Agency	Canada Transportation Act, Section 6(1)	Re-establishment of explosives storage facility with a capacity of less than 200 tonnes	Construction of an explosives storage facility
Canadian Environmental Assessment Agency	Canadian Environmental Assessment Act	Submission of Project Description Report	Determination of applicability being undertaken through submission of Project Description.
Governor in Council	Metal Mining Effluent Regulations	Regulatory Amendment to Schedule 2	Placement of deleterious waste rock or tailings in fish-frequented water bodies may be required. Determination of whether the Iron Bay tailings pond is fish habited must be made by DFO.
	Metal Mining Effluent Regulations		Regulatory requirements apply to the area of mine operations.
Environment Canada	Species at Risk Act, Section 73	Species at Risk Act Permit	There is potential for listed species to occur. The EA will need to demonstrate that reasonable alternatives, including those that would not adversely affect the species have been considered, and reasonable steps to minimize adverse effects are taken are taken.
	Migratory Birds Convention Act, Sections 4 & 5	Authorization under Section 5 of the Migratory Birds Convention Act, Permit under Section 4 of Migratory Birds Regulations	Prohibitions apply to all works and activities affecting migratory birds and their nests and eggs, should the inventory determine the presence of migratory birds.
Natural Resources Canada	Explosives Act, Section 7	Explosives Permit	 Explosives will be shipped to the mine site by a third party contractor. No explosives factory will be located onsite.
Fisheries and Oceans Canada (DFO)	Fisheries Act, Section 35(2)	To be determined as amendments to the Act are currently being finalized	A determination will have to be made regarding the Iron Bay tailings management area and south pit as potential fish habitat. Compensation would be offered through the rehabilitation of the south tailings management area.

