

HARDROCK PROJECT CONCEPTUAL WASTE MANAGEMENT PLAN



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1.0 INTRODUCTION AND ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN OVERVIEW

Greenstone Gold Mines (GGM) is committed to minimizing environmental effects through the implementation of mitigation measures, monitoring and adaptive management for the Hardrock Project (the Project) within Environment Management and Monitoring Plans (EMMPs) for construction and operation. Through the EMMPs, the Project's environmental risks and opportunities are addressed in a comprehensive, systematic, planned and documented manner to meet the following objectives:

- The Project is carried out in compliance with existing legislation, consistent with Federal and Provincial guidelines, best practices and GGM corporate policies;
- Measures to mitigate environmental effects are documented;
- Benefits from the Project are enhanced; and
- Reporting is structured to inform adaptive management and continual improvement.

The EMMPs guide environmental management for the Project and are progressively developed as the Project moves through the EIS/EA, permitting, and construction, and updated based on continual improvement during operations through adaptive management.

EMMP development begins during the EIS/EA stage with the preparation of Conceptual Environmental Management Plans. These EMMPs are broad in their level of detail, commitment-based and focused on the construction and operation phases of the Project. They include input received from consultation during the Draft EIS/EA stage. The closure phase is addressed in the Conceptual Closure Plan. The level of detail in the EMMPs advance as the Project moves through more detailed engineering and planning and as permit/regulatory requirements are available.

1.1 Environmental Management and Monitoring Plans

The Project's Environmental Management System, includes a comprehensive set of management and monitoring plans collectively referred to as Environmental Management and Monitoring Plans (EMMPs). The EMMPs outline environmental protection measures to mitigate potential environmental effects.

The EMMPs include:

- Water Management and Monitoring Plan;
- Conceptual Waste Rock Management Plan;
- Conceptual Emergency Response Plan;
- Conceptual Waste Management Plan;
- Conceptual Erosion and Sediment Control Plan;
- Conceptual Greenhouse Gas Management and Monitoring Plan;
- Conceptual Air Quality Management and Monitoring Plan;
- Conceptual Spill Prevention and Response Plan;

- Conceptual Soil Management Plan;
- Conceptual Noise and Vibration Management and Monitoring Plan;
- Conceptual Explosives and Blasting Management Plan;
- Conceptual Aquatic Management and Monitoring Plan;
- Conceptual Biodiversity Management and Monitoring Plan; and
- Conceptual Archaeology and Heritage Resource Management Plan.

These Plans are considered “living” documents and will be updated as needed in support of environmental management activities during future permitting, development and operation phases.

2.0 PROJECT SUMMARY

Mining of the Hardrock deposit has been designed as an open pit. The process plant will operate 365 days per year with a Life of Mine (LOM) of approximately 15 years. The mill throughput ranges from 24,000 tonnes per day (tpd) for approximately the first two years of operation (i.e., Mill Phase 1), increasing to 30,000 tpd for the balance of operation (i.e., Mill Phase 2). The overall Project development schedule will consist of the following main phases, during which various Project activities will be completed:

- Construction: Years -3 to -1 with early ore stockpiling commencing after the first year of construction.
- Operation: Years 1 to 15, with the first year representing a partial year as the Project transitions from construction to operation.
- Closure:
 - Active Closure: Years 16 to 20, corresponding to the period when primary decommissioning and rehabilitation activities are carried out.
 - Post-Closure: Years 21 to 36, corresponding to a semi-passive period when the Project is monitored and the open pit is allowed to fill with water creating a pit lake.

The key components of the Project are as follows:

- open pit
- waste rock storage areas (WRSAs) (designated as WRSA A, WRSA B, WRSA C and WRSA D)
- topsoil and overburden storage areas
- ore stockpile
- crushing plants and mill feed ore storage area
- process plant
- tailings management facility (TMF)
- water management facilities for contact water including collection ditches and ponds
- power plant and associated infrastructure

- liquefied natural gas plant
- explosives facility
- buildings and supporting infrastructure
- water supply and associated infrastructure
- sewage treatment plant
- effluent treatment plant
- lighting and security
- site roads and parking areas
- watercourse crossings and habitat compensation/offsets
- Goldfield Creek diversion
- onsite pipelines
- fuel and hazardous materials
- aggregate sources
- temporary camp

Project activities include the relocation of existing infrastructure currently located within the PDA, including a portion of Highway 11, a Ministry of Transportation (MTO) Patrol Yard, and Hydro One Networks Inc. (Hydro One) facilities.

3.0 MANAGEMENT AND MONITORING PLAN PURPOSE

3.1 Purpose

The purpose of the GGM Hardrock Project Conceptual Waste Management Plan is to facilitate the effective management of solid non-hazardous wastes generated from the Project including setting performance objectives, ensuring compliance with regulatory requirements and adhering to the waste management principles of Reduce, Reuse, Recycle, Recover (4Rs) described as:

Reduce: The primary goal is to reduce the quantity of waste generated via effective procurement so that ordered supplies and perishable consumables do not exceed usage rates and generate unnecessary waste. This may also include using effective ways to package materials before they are shipped to site, thereby reducing the amount of packaging that requires disposal.

Reuse: Whether on site or at an offsite location, the beneficial re-use of waste by-products requires less energy and is typically more cost efficient than other disposal options.

Recycle: Recycling is the third option in the waste management hierarchy. Recycling involves recovering materials that can be processed into new products. With secondary recovery, a further distinction is often made on whether the recovered product can be used to reproduce the original item or whether it must be “downcycled” into a lower grade product. Downcycling can prolong the useful life of a material. In limited cases, site waste can be downcycled and used for alternative purposes. Although recycling does help to conserve resources or reduce wastes, there are economic and environmental costs associated with waste collection and recycling. For this reason, recycling should only be considered for waste which cannot be reduced or reused.

Recover: It may be possible to recover materials or energy from waste which cannot be reduced, reused or recycled. Used materials are combusted to generate energy, which can be used to heat buildings or processes as well as to generate electricity.

Where wastes cannot be managed according to the 4R principles, it is critical that they be disposed of in an environmentally responsible manner. Where possible, local approved disposal facilities (including on and off site facilities) will be utilized to minimize demand on community infrastructure and reduce fuel usage to transport them.

There are four off site sanitary landfills in the Municipality: in Beardmore, Geraldton, Longlac and Nakina. The Municipality is in the process of obtaining approval for alternative waste disposal options so that it can continue servicing waste disposal needs in the long term, however, it has also been confirmed by the Municipality that the Longlac landfill has enough capacity to handle Project waste (non-recyclable, non-hazardous material, and kitchen waste). During operation, domestic waste will be hauled by trucks (approximately 1 or 2 trucks per week) to the Longlac landfill for disposal. Hazardous material disposal off site will be outside the Municipality in an approved facility.

The Conceptual Waste Management Plan outlines:

- Compliance obligations and methods for managing compliance with these requirements;
- Performance objectives of the Conceptual Waste Management Plan;
- Estimates of the quantity and type of solid non-hazardous waste to be generated;
- Methods for characterizing and segregating hazardous waste from the solid waste management stream;
- Appropriate disposal, recycling, or re-use options for wastes generated; and
- Tracking environmental performance and evaluating mitigation measures to enable the implementation of adaptive follow-up programs as needed.

Management of waste streams not covered by the Conceptual Waste Management Plan include mineral wastes and wastewater which are managed under separate plans (Conceptual Waste Rock Management Plan and Conceptual Water Management Plan, respectively).

3.2 Performance Objectives

Objectives and targets are established to drive continuous improvement in environmental performance and are consistent with the overall strategic goals of the Project. Objectives are measurable (where possible), monitored, communicated, and updated as appropriate.

In support of GGM's overarching environmental objective (to work to prevent or mitigate any environmental impacts, meet or exceed regulatory requirements and strive to continually improve our environmental practices and performance), GGM will manage solid wastes using the following objectives:

- Compliance with applicable regulatory, permit and other solid non-hazardous waste management obligations;

- Effective management that enables efficient procurement, handling, storage and use, reduction and substitution of materials to reduce waste generation;
- Following the 4R principles of waste management;
- Target 100 percent of onsite employees and contractors to have completed waste management awareness training, achieved through the Project's site-specific environmental orientation training.

4.0 SCOPE

The scope of the <insert Plan name> applies to the area of the Project that will undergo changes through construction and/or operation to accommodate the advancement of Project and associated monitoring. The Conceptual Waste Management Plan applies to the construction and operation phases of the Project with closure phase included in the Conceptual Closure Plan.

The Conceptual Waste Management Plan applies to individuals working for or on behalf of GGM, including employees and contractors, which have a role and/or accountability for the development, implementation and maintenance of this EMMP.

GGM will make reasonable efforts that suitably qualified (licenced where applicable) contractors are used for the transport of materials, supplies and waste materials, and that contractors have appropriate controls and management plans in place to reduce the likelihood of incidents during transport. Similarly, Project components under the management and maintenance by third parties are outside the scope of this EMMP. The scope of the Conceptual Waste Management Plan applies to Project infrastructure and management under the care and maintenance of GGM.

5.0 PLANNING

5.1 Organizational Roles and Responsibilities

All persons working for or on behalf of GGM, including employees and contractors, have a role in the successful implementation and maintenance of the Conceptual Waste Management Plan. Table 5-1 outlines roles and responsibilities for waste management activities:

Table 5-1. Conceptual Roles and Responsibilities

Role	Responsibility
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Construction Manager (during Construction) / Mine Manager (all other Project phases)	Be aware of waste management policies and procedures. Provide direction as needed on the appropriate disposal of waste. Support Project environmental staff in waste management / reduction programs.
Site Environmental Manager (or Staff as designated)	Ensure compliance with waste diversion policies (solid / hazardous) among Project personnel. Ensure waste handling contractors and facilities are appropriately qualified or licensed for waste stream for which they are responsible.
Project Workers / Supervisors	Be aware of waste management policies and procedures. Dispose of waste appropriately and in a timely fashion. Be familiar with appropriate emergency response procedures in the event of a hazardous waste spill.
Waste Transport Contractor and Waste Receiver	Maintain licensing as required and appropriate. Complete necessary documentation for tracking of wastes. Conduct waste handling, transport, disposal in accordance with applicable Provincial and Federal legislation and associated regulations.

5.2 Compliance Obligations

The Conceptual Waste Management Plan is developed and implemented to comply with applicable legislative, regulatory, permit and other relevant obligations, outlined in the following sections.

5.2.1 Environmental Assessment Process Requirements

5.2.1.1 Provincial Terms of Reference

As described in the Approved Terms of Reference, the EA includes a variety of environmental protection and management measures to guide the planning, design, construction, operation and closure of the Project (section 4.1.4) and identification of a monitoring framework related to compliance and effects monitoring (section 8.2).

5.2.1.2 Federal Environmental Impact Statement Guidelines

The EIS Guidelines for the Hardrock Project include development and implementation of follow-up and monitoring programs (section 8.0). The follow-up program verifies the accuracy of the effects assessment and the effectiveness of the measures implemented to mitigate the adverse effects of the Project. The goal of a monitoring program is to ensure that proper measures and controls are in place in order to decrease the potential for environmental degradation during all phases of the Project and to provide clearly defined action plans and emergency response procedures to account for human and environmental health and safety.

5.2.1.3 Draft EIS/EA Report

Section 24 of the Draft EIS/EA includes a listing of proposed Follow-up Monitoring and Environmental Management Plans, which included a commitment to produce a Conceptual Waste Management Plan. This Plan is intended to outline procedures and protocols to manage domestic waste and hazardous wastes generated by the Project. The Waste Management Plan will include management for material handling, disposal methods, training, auditing and contact information for licensed waste disposal contractors.

Subsequent to the draft EIS/EA submission, comments were raised by several parties requesting additional clarification on the estimated type and quantity of waste to be generated, capacity of the municipal landfill facilities to accommodate the additional waste, and additional information of the onsite management and permanent disposal in the Waste Rock Storage Areas. Available information has been incorporated to develop this Conceptual Waste Management Plan.

5.2.2 Regulatory Requirements

5.2.2.1 Federal Regulatory Requirements

Depending on the nature of the material, hazardous waste maybe subject to the Federal *Transportation of Dangerous Goods Act, 1992*.

Waste storage, transport and disposal will be undertaken in accordance with the provisions of the *Environmental Protection Act* and applicable regulations; as well as applicable provisions of the *Transportation of Dangerous Goods Act, 1992*.

5.2.2.2 Provincial Regulatory Requirements

Waste storage, transport and disposal is governed in the Province of Ontario under the *Environmental Protection Act*, and several associated regulations. Hazardous waste in particular is subject to *RRO 1990, Regulation 347: General – Waste Management*. GGM is proposing to place inert and non-food waste within the boundaries of the WRSAs. GGM will obtain an Environmental Compliance Approval (Waste Disposal) from the MOECC if required prior to the placement of waste within the WRSAs.

5.2.2.3 Municipal Regulatory Requirements

There are currently no additional municipal regulatory requirements, to the best knowledge of GGM.

5.2.3 Other Agreements, Commitments, Requirements

The Municipality has confirmed acceptance of domestic waste from the Project which is to be sent to the Longlac landfill.

6.0 SUPPORT

6.1 Identification/Inventory of Resources

Waste management will consist of:

- a waste sorting facility
- disposal of domestic waste at the Municipality of Greenstone Longlac landfill
- use of a secure hazardous waste temporary storage area
- permanent disposal of inert waste within WRSA B and D
- selling or recycling waste associated with vehicles for scrap

A waste sorting facility will be located onsite to divert as much waste as possible from permanent disposal and provide appropriate secured temporary storage for these materials for backhaul to facilities off site.

Non-recyclable, non-hazardous domestic and mainly putrescible waste will be transferred offsite using a licensed contractor for proper disposal at the Longlac landfill. In discussions between GGM and the Municipality of Greenstone, it has been confirmed that the Longlac landfill has sufficient capacity to accept anticipated non-hazardous, domestic waste from the Project. According to the 2015 Performance Report for the Longlac landfill, approximately 115,700 m³ of approved capacity remains, and the remaining lifespan is currently estimated to be about 19 years, or to 2034 (exp Services Inc. 2016).

Hazardous waste will be temporarily stored on-site in designated storage areas, within a Sea-Can container, a building or appropriate containers for truck transport. Hazardous waste materials will be packaged for shipment off site to certified waste management facilities for appropriate handling, in accordance with Canadian and provincial regulations.

Non-hazardous inert and non-putrescible waste, including non-hazardous demolition material from existing buildings and infrastructure, may be disposed of in a waste disposal area to be located in WRSA B and D.

Wastes associated with vehicles, such as scrap metal, batteries, and broken parts will be collected and sold for scrap or recycled, when possible.

Anticipated waste generation for each phase of the Project is provided in Table 6-1 and described in the following. In general material included in this management plan are:

- Waste materials - items that cannot be recycled, recovered or otherwise re-used;
- Construction materials - items such as unused raw concrete, bricks, wood packaging materials (pallets, crating, etc.), and unused or damaged wood during construction; and
- Hazardous waste - items such as used oil and batteries requiring special handling, storage and disposal.

6.2 Competence, Training and Awareness

GGM requires that persons working under its management, including employees and contractors, have the knowledge, understanding, skills and abilities to complete work in a manner that protects the environment. The following actions will be established to provide worker competency, training and awareness:

Staff will be trained in various waste management procedures as appropriate to their respective work areas. Project staff will be made aware of recycling facilities and encouraged to divert recyclable waste to those facilities, while disposing of domestic waste appropriately (i.e. not contaminating the recycling stream).

Personnel who work with / maintain heavy equipment will be trained in the appropriate maintenance procedures to reduce the likelihood of spills, as well as in the appropriate disposal of hazardous waste materials such as fluids, filters, and batteries. Maintenance and operation personnel will also be trained in spill mitigation and reporting procedures.

Table 6-1. Annual Estimated Waste Generation of the Hardrock Project

Waste Type	Estimated Quantity/Volume	Disposal
CONSTRUCTION		
Demolition, wood waste, concrete and other inert materials to WRSA B or D	15,000 m ³ for entire phase	Onsite disposal
Domestic waste to Longlac Landfill	70 m ³ /week*	Offsite landfill
OPERATION		
Domestic waste to Longlac Landfill	36 m ³ /week*	Offsite landfill
Batteries	100 batteries/year	Offsite facility for hazardous material
Metal	478 m ³ /year	Recycling
Electrical wiring	7.5 m ³ /year	Recycling
Inert waste to WRSA D (includes 5,700 m ³ /year of untreated wood)	7,500 m ³ /year	Onsite disposal
Technology, Information, Communication	0.3 tonnes/year	Offsite disposal
Used oil	187,850 litres/year	Offsite facility for hazardous material
Used oil filters	5,374 filters/year	Offsite facility for hazardous material
Used air filters	2,207 filters/year	Offsite facility for hazardous material
Used Glycol	15,332 litres/year	Offsite facility for hazardous material
CLOSURE		
Metal	4,565 m ³ for entire phase	Recycling
Inert waste to WRSA D	10,000 m ³ for entire phase*	Onsite disposal
Domestic waste to Longlac Landfill	1,000 m ³ for entire phase*	Offsite landfill

*Volumes estimated prior to compaction

7.0 IMPLEMENTATION OF MITIGATION MEASURES

7.1 General Approach

7.1.1 Construction

During construction of the Project, general non-recyclable, non-hazardous solid wastes such as wood waste, concrete and other inert materials will be disposed of in WRSA B and D while approximately 70 m³ of domestic waste, or two truck loads, will be disposed of in the Longlac

landfill per week. If approved by the Ministry of Natural Resources and Forestry, clean wood products such as pallets or shipping crates may be broken down and burned at a designated area onsite.

Non-hazardous domestic waste will be transferred offsite using a licensed contractor for proper disposal at the Longlac landfill. Wastes associated with vehicles, such as scrap metal, batteries, and broken parts will be collected and sold for scrap or recycled, when practical.

Decommissioning and demolition wastes includes residences and community infrastructure. Prior to demolition, salvageable material will be removed as per the Conceptual Archaeology and Heritage Resource Management Plan, and sent to a licensed recycling facility. Waste estimates from this demolition are provided in Table 7-1.

Table 7-1. Demolition Waste Estimate

Source	Inert Demolition Waste to WRSA B and D (m ³)	Inert Demolition Waste to Approved Offsite Facility (m ³)	Demolition Waste to be recycled
Residential buildings	TBD	10,000	TBD
MTO Patrol Yard	900	70	Not applicable
OPP station	1,050	100	Not applicable
Husky Gas Station	300	50	Not applicable
Headframe	840	100	40 tonnes of steel
Interpretive Centre	740	70	Not applicable
Hydro One Station	700	70	Equipment/steel/wire to be sold or recycled

7.1.2 Operation

7.1.2.1 Onsite Disposal

Non-hazardous inert and non-putrescible waste (e.g. untreated wood waste, concrete) will be disposed of in WRSA B or D. These areas will be sequenced within waste rock as required. Burial of nonhazardous solid waste suitable for these disposal areas will be completed by a trained employees or contractor and comply with regulatory and access control requirements. Solid waste that will be disposed of within the WRSA will include:

- untreated wood;
- corrugated cardboard;
- paper products;
- office waste (dry non-putrescible);
- non-hazardous property demolition and construction waste; and

- non-recyclable heavy plastics (PVC piping, LLDP/HDPE liner scraps, packaging material).

The conceptual approach to constructing the onsite disposal in the WRSA comprises the following steps:

1. Waste material is hauled to the WRSA and dumped at the base of the containment berm.
2. The material is spread in approximately 1 m lifts using a dozer and track packed.
3. Successive lifts of debris are placed and compacted until the debris height and width reaches approximately 3 m.
4. Intermediate cover, approximately 0.3 m to 0.5m, is placed over the debris.
5. Once cell construction within the designated disposal area footprint is complete, a second set of cells, constructed above the first can be started. A new containment berm is built on top of the existing cells and the above steps are repeated.

Intermediate cover for the cells should have a maximum particle size of 100 mm to encourage filling of debris voids during placement. The cover material may comprise screened or sorted waste rock, till, gravel or remediated petroleum hydrocarbon contaminated soils. A stockpile of intermediate fill will be maintained near the WRSA disposal area for placement as required.

7.1.2.2 Offsite Disposal

Domestic waste will be sent to the Longlac landfill via truck. The number of trucks used to haul waste to the Longlac landfill remains minimal, one or two trucks per week. During operation, it is expected that the greatest volume of material will be generated at the mine dry and administration building, with additional amounts at various other locations throughout the processing plant area, and minor amounts in other areas across the Project site.

The majority of hazardous waste at the Project is expected to be generated from maintenance of mine fleet vehicles, including haul trucks, excavators, and other light vehicles. Appropriate containers for short term storage of waste oil and fuel, hydraulic fluids, antifreeze, filters, solvents, and other hazardous wastes will be located in an area with containment in the Maintenance Shop.

Other hazardous wastes generated on the Project site may include fluorescent light bulbs, reagents, and biomedical waste (either from personal care such as diabetic supplies or from first aid / medical treatment). Areas where these materials will be generated includes appropriate means for short-term storage such as clearly labelled bins and sharps / biohazard containers.

Once a sufficient quantity of material has been stored, an appropriate contractor (licensed, where required) will be contacted to transport it to a licensed off site hazardous waste disposal facility.

Hazardous waste will be transported and disposed of in accordance with *RRO 1990, Reg. 347*, and the *Transportation of Dangerous Goods Act, 1992*, with manifests filled in and copies retained at site for records and inspection as requested.

Sludge which is not classified as hazardous waste under *RRO 1990, Reg. 347* will be transferred to the tailings management area for disposal.

7.1.3 Closure

Mitigation and monitoring activities associated with decommissioning, reclamation and rehabilitation during the closure phase is presented in the Conceptual Closure Plan.

8.0 MONITORING, EVALUATION AND REPORTING

8.1 Monitoring, Measurement, Analysis and Evaluation

The purpose of the waste management monitoring program is to evaluate and document if the Conceptual Waste Management Plan successfully achieves its performance objectives of safe and effective waste management. Table 8-1 outlines the conceptual monitoring program.

Table 8-1. Summary of Conceptual Waste Management Plan Monitoring Activities

Monitoring Activity	Project Phase	Frequency
Tracking of hazardous waste materials (type and quantity) stored on site	Construction, Operation	Monthly
Reporting of hazardous waste transferred offsite	Construction, Operation	Quarterly
Reporting of waste quantities (solid waste, recycling) transferred offsite	Construction, Operation	Monthly
Reporting waste quantities disposed on site	Construction, Operation	Monthly

8.1.1 Solid Waste

There are not anticipated to be solid waste management monitoring requirements.

As part of regular site environmental activities, Project environmental staff will carry out or commission periodic waste audits to evaluate the quantities of material generated from each waste stream, the effectiveness of diversion, and the continued ability of the target receiving site to accommodate material. These audits will also review the qualifications and license status of contracted carriers and receivers.

As a best practice, the site will be routinely inspected for cleanliness and good housekeeping practices, and to ensure that waste materials are properly disposed of in the appropriate temporary storage facilities.

8.1.2 Hazardous Waste

Appropriate registration for the generation of hazardous waste will be obtained, and monitoring and manifesting requirements will be followed as determined under Regulation 347.

8.2 Reporting

The form and frequency of follow-up reporting will be determined as the Project progresses through EA and permitting, however, it is anticipated that those elements relevant to the Conceptual Waste Management Plan will include:

- Copies of the waste manifests will be made available for review by inspectors on an as-requested basis
- Receiving, documenting and responding to communication from external interested parties, including complaints, will also form part of reporting under this Plan.

Receiving, documenting and responding to communication from external interested parties, including complaints, will also form part of reporting under this Plan.

8.3 Continual Improvement

Adaptive management is a planned and systematic process for continuously improving environmental management practices by learning from their outcomes. Adaptive management provides the flexibility to address/accommodate new circumstances, to adjust monitoring, implement new mitigation measures or modify existing measures.

GGM will identify and correct incidents with appropriate and lasting measures aimed to prevent reoccurrence and/or similar occurrences. The Adaptive Management Framework (Figure 8-1), provides a formalized approach to:

- formally track and monitor activities;
- report and as needed investigate incidents, including non-conformance and non-compliance events;
- develop and implement corrective and preventive actions; and
- continue monitoring and update relevant EMMPs.

Corrective actions will be assigned as appropriate, including actions to prevent their reoccurrence. Corrective actions will vary according to the results of incident investigation and in consideration of other incidents related to waste management.

GGM is committed to the continual improvement of its environmental management and performance. As part of the GGM Adaptive Management Framework, the Conceptual Waste Management Plan will be assessed annually to verify implementation and the continued suitability, adequacy and effectiveness of the Plan. The review will identify elements of this EMMP in need of revision, and evaluate performance against established performance objectives.

Figure 8-2 presents the overall approach to developing and advancing the EMMPs from the final EIS/EA to the construction Phase of the Project. The first stage of EMMP development begins with preparation of Conceptual Environmental Management Plans as part of the final EA/EIS. These Conceptual EMMPs are commitment-based and broad in their level of detail. The EMMPs guide environmental management for the Project and are progressively developed as the Project moves through the EA/EIS, permitting, and construction, and updated based on continual improvement during operations through adaptive management.

9.0 REFERENCES

Stantec Consulting. 2016. Hardrock Project Draft Environmental Impact Statement / Environmental Assessment. January 2016.

exp Services Inc. 2016. 2015 Performance Report Landlac Landfill, Municipality of Greenstone, Ontario. Prepared for the Municipality of Greenstone. June 30, 2016.

10.0 FIGURES

Figure 8-1: Hardrock Project Adaptive Management Framework

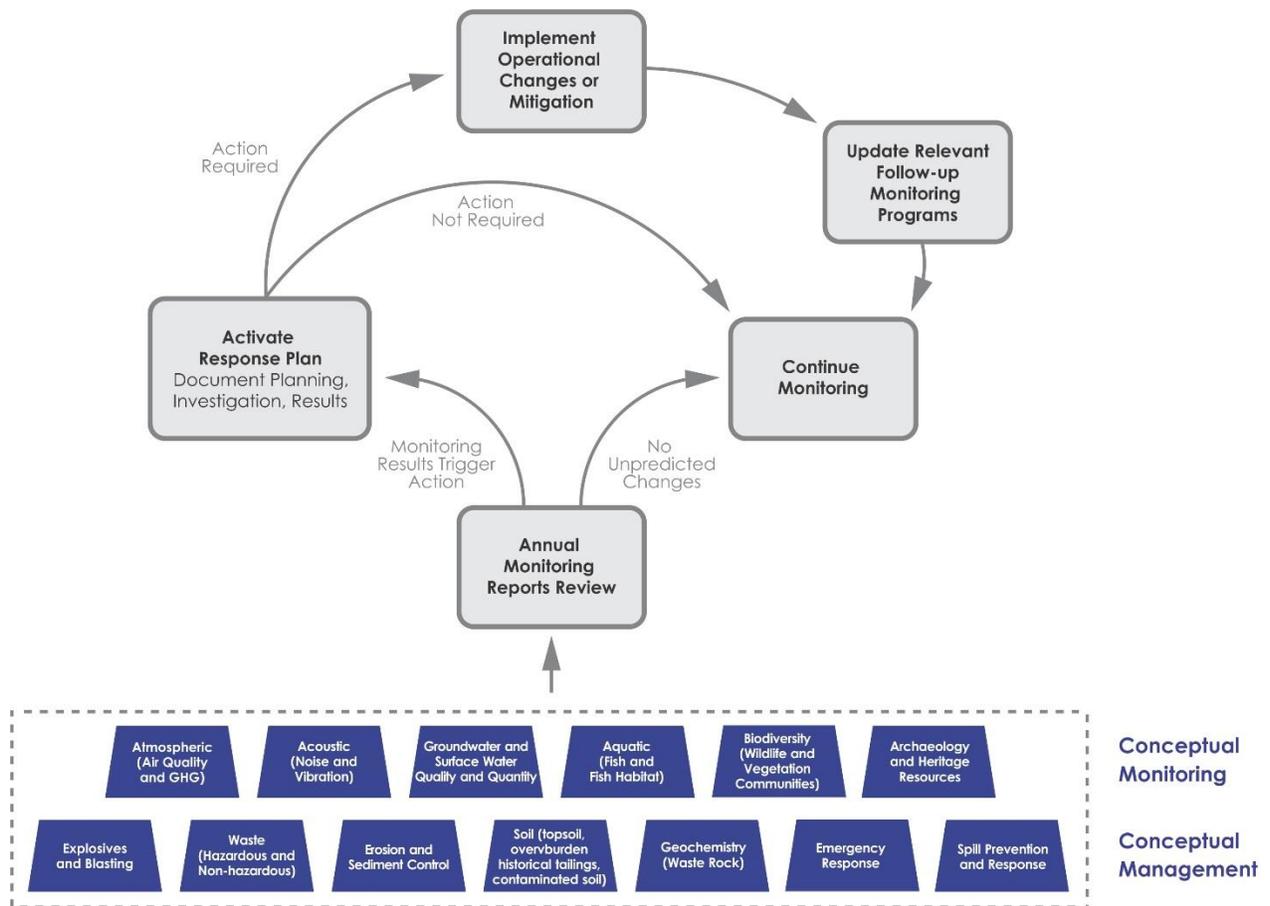


Figure 8-2: Environmental Management and Monitoring Plan Development EA to Construction

