

# Greenstone Mine Current Use of Lands and Resources for Traditional Purposes – Follow-Up Plan Annual Report

HP-MG003-EV-136-0035\_0

December 14, 2022

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## 1 Introduction

Greenstone Gold Mines GP Inc. (GGM) proposes to construct, operate and ultimately decommission/close a new open pit gold mine, process plant, and associated ancillary facilities, collectively known as the Greenstone Mine (the Mine).

The Mine's Environmental Impact Statement/Environmental Assessment (EIS/EA) was approved by the federal Minister of the Environment, as outlined in the Decision Statement issued under Section 54 of the Canadian Environmental Assessment Act, 2012 (Decision Statement, dated December 10, 2018), and by the provincial Ministry of the Environment, Conservation and Parks, as outlined in the Notice of Approval to Proceed with the Undertaking (Notice of Approval, dated March 12, 2019).

### 1.1 Mine Overview

The Greenstone Mine deposit will be mined as an open pit. The process plant will operate 365 days per year with a Life of Mine (LOM) of approximately 15 years. Mill operations will be variable up to a nominal maximum throughput of 30,000 tonnes per day (tpd) as conditions warrant.

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 Year 1 representing a transition from construction to operation; and,
- Closure: Years 16 to 20 for Active Closure and Years 21 to 36 for Post-Closure.

Key mine components of the Project development area (PDA) are an open pit, waste rock storage areas, overburden storage areas, ore stockpile, ore crushing and mill feed ore storage activities, process plant, water management facilities, tailings management facility, power plant and associated infrastructure, and explosives facility. Ancillary Project components are buildings, service water supply and associated infrastructure, sewage and effluent treatment plants, site roads, watercourse crossings, realignments, and habitat compensation/offsets, onsite pipelines and piping, fuel and hazardous materials storage, aggregate sources, and temporary camp. Existing infrastructure currently located within the PDA will be relocated, including a portion of Highway 11, a Ministry of Transportation Patrol Yard, and Hydro One Networks Inc. facilities. Refer to Figure 1 for the current mine site plan.

## 1.2 Project Location

The Project is located in northwestern Ontario, approximately 275 kilometers (km) northeast of Thunder Bay, in the Municipality of Greenstone, Ward of Geraldton. The Project is generally centered at the intersection of Highway 11 and Michael Power Boulevard. Highway 11 currently traverses the Project property in an east-west direction.

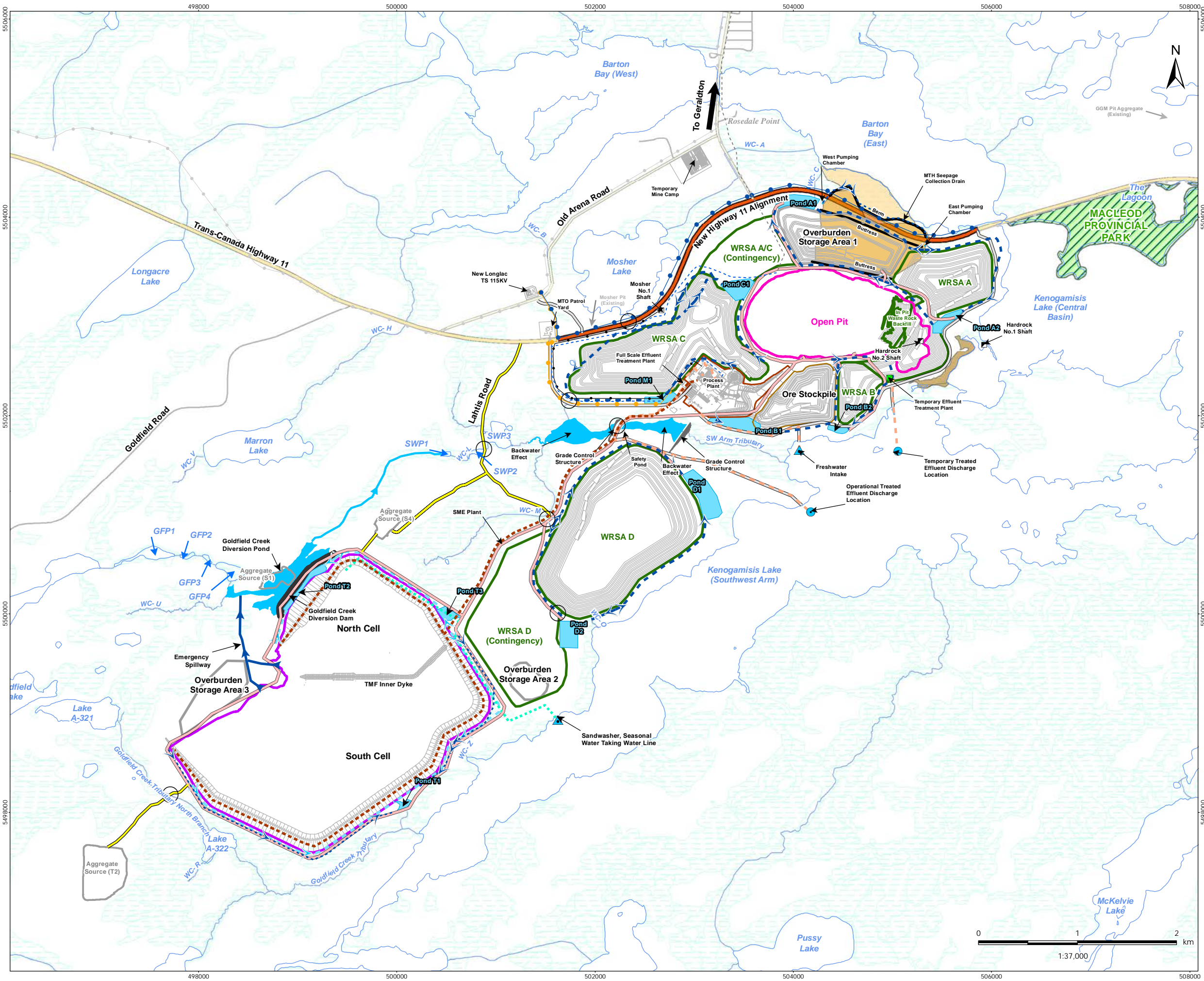
The Project site consists of a contiguous block of patented claims, leases, licenses of occupation and staked claims held by GGM.

## 1.3 Follow-up Plan Purpose and Scope

The Current Use of Lands and Resources for Traditional Purposes Follow-Up Plan (Current Use Plan) has been developed to satisfy Condition 6.9 of the federal Decision Statement:

*Develop, prior to construction and in consultation with Indigenous groups, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes, including access to the Southwest Arm of Kenogamisis Lake referred to in condition 6.1 and access along Goldfield Road and to the Goldfield Creek diversion channel referred to in condition 6.2. The Proponent shall implement the follow-up program during all phases of the Designated Project.*

Indigenous groups are listed in the Decision statement (1.18) as: Animbiigoo Zaagiigan Anishinaabek (AZA), Aroland First Nation (AFN), Ginoogaming First Nation (GFN), Long Lake #58 First Nation (LL58), and Métis Nation of Ontario (MNO). In addition, the Provincial Notice of Approval identifies Red Sky Métis Nation of Ontario (RSMIN) as an Indigenous Community.



- ### Legend
- |   |                                  |
|---|----------------------------------|
| Preliminary Site Plan                           | Highway Realignment              |
| Discharge Location                              | Existing Features*               |
| Existing Mine Shaft                             | Highway                          |
| Freshwater Intake                               | Major Road                       |
| Temporary Effluent Treatment Plan               | Local Road                       |
| Watercrossing                                   | Existing Power Line              |
| Access Road                                     | Existing Potable Water Pipeline  |
| Construction Access Road                        | Watercourse                      |
| Diversion Channel                               | Provincial Park                  |
| Emergency Spillways                             | Waterbody                        |
| Haul Road                                       | Wetland (Eco-Site Based)         |
| Potable Water Pipeline                          | <b>Historical Tailings Areas</b> |
| Pipeline (Intake and Discharge)                 | Historical Hardrock Tailings     |
| 44 kV Distribution Line                         | Historical MacLeod High Tailings |
| 12.5 kV Distribution Line                       | Historical MacLeod Low Tailings  |
| 115 kV Transmission Line                        |                                  |
| Seepage Collection Ditch                        |                                  |
| Subsurface Seepage Collection System            |                                  |
| Contact Water Collection Ditch                  |                                  |
| Tailings Pipeline and 13.8 kV Distribution Line |                                  |
| Water Line                                      |                                  |
| Aggregate Source                                |                                  |
| Collection Ponds                                |                                  |
| Open Pit- Full Extent                           |                                  |
| Ore Stockpile                                   |                                  |
| Process Plant Area                              |                                  |
| Tailings Management Facility                    |                                  |
| Waste Rock Storage Area                         |                                  |

**Notes**

- Coordinate System: NAD 1983 UTM Zone 16N
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

\* Existing Features have been removed in the PDA and do not reflect current conditions.

December 2022  
160961223

Client/Project

Greenstone Gold Mines GP Inc. (GGM)  
Hardrock Project

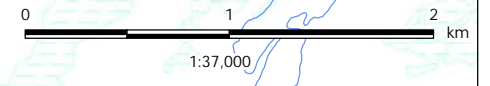
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Figure No.  
1

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Title  
Optimized Site Plan  
(Current as of May 2019)

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 Revised: 2022-12-13 By: dhanvey



## 2 Roles and Responsibilities

The roles and responsibilities for key GGM staff responsible for implementing the Current Use Plan are provided in Table 2.1.

**Table 2.1: Roles and Responsibilities for the Current Use Plan**

Title or Position	Key Responsibilities
Director, Environment and Community Relations	<ul style="list-style-type: none"> <li>Oversee implementation of the Current Use Plan to facilitate compliance with the plan and environmental permits, regulations, commitments and best practices.</li> </ul>
Community Planning Liaison	<ul style="list-style-type: none"> <li>Work with Environment Superintendent to implement the Current Use Plan and related processes.</li> <li>Coordinate Indigenous Relations team members and tracking and reporting on communications related to current use.</li> </ul>
Superintendent, Environment	<ul style="list-style-type: none"> <li>Participate in EASs with Indigenous groups.</li> <li>Share results of follow-up and monitoring programs with Indigenous group EASs.</li> </ul>
Environmental Advisory Sub-Committees (EAS)	<ul style="list-style-type: none"> <li>Review and provide input into the Current Use Plan during development in consultation with communities and input on adaptive management.</li> </ul>
Environmental Technicians	<ul style="list-style-type: none"> <li>Participate in the monitoring activities at site as directed by the Superintendent, Environment.</li> <li>Share information and obtain community feedback and relaying to the EAS and GGM for discussion.</li> </ul>

## 3 Follow-Up Program

As specified in Condition 6.1 of the federal Decision Statement:

*“The Proponent shall establish, in consultation with Indigenous groups and prior to undertaking construction activities that will restrict access to the Southwest Arm of Kenogamisis Lake, alternate unrestricted access to the Southwest Arm of Kenogamisis Lake and shall maintain that alternate access during all phases of the Designated Project, to the extent that such access is safe”.*

In follow up to a commitment made in the EIS/EA, GGM has included a public access road from Highway 11 along the east side of the PDA to maintain access to the Southwest Arm of Kenogamisis Lake (see Figure 1 and Figure 2). This EA commitment outcome was documented in the Outcome of Detailed Engineering Design Optimization Report (April 30, 2019). The Optimization Report was circulated to Indigenous groups and no concerns were identified.



As specified in Condition 6.2 of the federal Decision Statement:

*“The Proponent shall maintain unrestricted access along Goldfield Road during all phases of the Designated Project and to the Goldfield Creek diversion channel starting when the Proponent has completed progressive reclamation referred to in condition 4.2 and until the end of decommissioning, to the extent that such access is safe”.*

Goldfield Road is located outside of the PDA and no effects on Goldfield Road access are anticipated as a result of the Project.

For the Goldfield Creek diversion channel, the main access point of Lahtis Road will be closed during construction and operation due to safety reasons (EIS/EA, Chapter 16). Lahtis Road was closed during the reporting period. Signage was posted by GGM around the perimeter of the PDA, including the shoreline of Kenogamisis Lake, to alert local land and resource users of the presence of the Project. At Closure, Lahtis Road is planned to be re-opened to public traffic up to the point of the Goldfield Creek diversion (Closure Plan, Section 9.7 and 11.1). GGM will work with the Indigenous groups via their respective EAS to determine more precisely when Lahtis Road will be re-opened. During construction and operations, GGM will facilitate site tours for representatives of the Indigenous groups to access the Goldfield Creek diversion channel to observe its establishment and progress.

### 3.1 Monitoring During the Reporting Period

GGM is committed to ongoing dialogue with Indigenous groups with respect to monitoring Project effects on current use for traditional purposes throughout all Project phases. GGM’s Communications Plan, Community-Specific Consultation Plans and agreements established with the Indigenous groups will guide the manner in which GGM will carry out its work.

In consultation with Indigenous groups, GGM has developed procedures for Indigenous groups to communicate their concerns about adverse environmental effects caused by the Project related to access to and use of lands for traditional purposes. GGM has also developed procedures to document and respond in a timely manner to any concerns received and demonstrate how issues have been addressed.

Environmental Technicians and EAS are key mechanisms for communications related to the Current Use Plan, including verifying the accuracy of the environmental assessment and determine the effectiveness of mitigation measures. The committees include members from local Indigenous groups and meetings are held regularly. The committees review relevant Project documentation and the meetings provide a forum for community representatives and GGM to discuss environment and community related matters and collaborate to resolve concerns and recommendations. The Environmental Technicians, having a key role in liaising back to their respective communities and advising GGM and the EAS of feedback from their membership, are well-positioned to inform how the implementation of Project mitigation measures for access are working and if concerns need to be addressed.



GGM and the Indigenous groups will work collaboratively on the follow-up program development and implementation:

- GGM leads the sharing of information related to alternate unrestricted access to the Southwest Arm of Kenogamisis Lake, Goldfield Road and the Goldfield Creek Diversion Channel. For example, GGM kept the EAS' informed on progress made with the development of the east access road and date for when it was opened to the public.
- Environmental Technicians for the Indigenous groups lead the collection and sharing of feedback from community members with GGM related to current use of land. The monitoring program approach is adaptive and depends on areas of interest identified with Indigenous groups, which may change over time.

Table 3.1 outlines the parameters, methodology, location, frequency, timing and duration of monitoring associated with the follow-up program.

**Table 3.1: Monitoring Program Details**

Performance Objective	Monitoring Parameter	Method	Location	Frequency	Timing	Duration
Accessibility to the Southwest Arm of Kenogamisis Lake	User inputs on ability to access Southwest Arm of Kenogamisis Lake	Environmental Technicians are responsible for obtaining community feedback/concern. These are discussed at EAS meetings.	PDA/LAA	Continuous / ad-hoc	Year-round	All project phases
Unrestricted access to the use of Goldfield Road	User inputs on ability to access Goldfield Road	Environmental Technicians are responsible for obtaining community feedback/concern. These are discussed at EAS meetings	LAA	Continuous / ad-hoc	Year-round	All project phases
Unrestricted access to the Goldfield Creek diversion channel	User inputs on ability to use Lahtis Road to access the Diversion Channel	Environmental Technicians are responsible for obtaining community feedback/concern. These are discussed at EAS meetings	PDA	Continuous / ad-hoc	Year-round	Closure (note Lahtis road is closed for the duration of construction and operations due to safety reasons)

## 4 Reporting

### 4.1 Monitoring Results

There have been no changes to access during this reporting period other than the closure of Lahtis Road to the public. Site tours are scheduled as needed for communities and EAS' to view the Goldfield Creek diversion and associated infrastructure.

### 4.2 Conclusion

Greenstone Gold Mines has worked with the Indigenous Communities through the Environmental Advisory Sub-Committees during the reporting period to ensure the Environmental Assessment Commitments made regarding Current Use of Lands and Resources for Traditional Purposes are met.