

October 22, 2020

Nicolas Courville, Senior Enforcement Officer, Compliance and Enforcement Unit  
Impact Assessment Agency of Canada  
Sent via email: Nicolas.Courville@Canada.ca

Dear Mr. Courville,

**Re: Hardrock Project Detailed Engineering Optimization Report – Response to Letter from IAA dated September 25, 2020**

Thank you for your letter on September 25, 2020, regarding the Detailed Engineering Optimization Report for the Hardrock Project. The responses to the questions received are below.

*Q1. With regards to the proposed access road to the Southwest Arm of Kenogamisis Lake, the proponent stated that the “holder of mineral exploration claims on the peninsula between the Central Basin and Southwest Arm of Kenogamisis Lake also expressed a desire for road access through the Project site to access the claimed area.” Please clarify whether this access road would be used by the proponent and the mineral exploration claims holder. If the Proponent or mineral exploration claims holder will use this road please elaborate how they will use the road and how their use is will interfere with the use of this access road by Indigenous groups and public in an area that would already be disturbed because of the proximity to the open pit.*

R1. The proposed access road is for the public and Indigenous peoples and was incorporated to the site plan in order to meet the commitment provided in the Assessment of Potential Effects on Land and Resource Use (Chapter 16) and Traditional Land and Resource Use (Chapter 18) of the EA that GGM would provide access to the Southwest Arm of Kenogamisis Lake. Providing this access is also required as per condition 6.1 of the Decision Statement. The road will have minimal use by GGM and will not interfere with public or Indigenous access. Consultation was carried out and communities support this access road.

*Q2. With regards to the relocation of Pond M1 and the reduction of its size from what was originally proposed, the Agency would like confirmation from Proponent that a detailed analysis has been conducted indicating the proposed decrease in size of Pond M1 would not impede its ability in meeting the requirements of a central contact water collection pond and treating contact water as required by condition 3.5 of the EA Decision Statement.*

R2. Detailed engineering confirms that the proposed decrease in size of Pond M1 will not impede its ability in meeting the requirements of a central contact water collection pond and treating contact water as required. The pond is also designed for the Environmental Design Flood, which is the 100-year 24-hour rainfall storm event.

Detailed engineering determined that the maximum operating water volume for Pond M1 is approximately 50,522,000 L with the pond having a total volume capacity of approximately 54,346,000 L available for storage of the 100-year storm (EDF). Pond M1 water will be treated as planned.

*Q3. A revised version of Figure 1 that was included in the November 2018 Environmental Assessment Report, as previously requested in the Agency's letter to the Proponent dated August 11, 2020.*

R3. Please find attached a revised version of Figure 1.

As discussed on September 14, 2020, GGM does not see the need for an amendment to the environmental assessment (EA) Decision Statement considering that the engineering optimizations are generally beneficial environmentally, minimal in nature and consistent with GGM's commitments, including our commitment to continual improvement, and do not change the Project Description or mitigation measures presented in the Final Environmental Impact Statement (EIS).

As requested, please find attached a figure to show the minor adjustments to Project development area (PDA). To accompany this figure and supporting GGM's interpretation of the work, GGM would like to highlight the following key points regarding the engineering optimizations that have been made and their relation to the PDA as documented in the EIS.

- Compared to the EIS the overall PDA has been reduced in size by two hectares (ha); from 2193.4 ha to 2191.4 ha.
- Aggregate source T2 and access road:
  - The refined aggregate pit boundary is entirely within GGM mineral claims, and is now 43 ha smaller in size compared the area identified in the EIS. GGM has left the larger footprint as part of the PDA for consistency with the EIS/EA and to provide operational flexibility. The boundary only extends only 0.86 ha immediately adjacent to the PDA, which equates to a very minimal 0.00039% increase in the PDA.
  - The improved access road to aggregate source T2 has multiple benefits including avoidance of topographic constraints (safer gradient), avoidance of an existing wetland, and a reduced footprint (0.7 km shorter than the original access road).
- Aggregate source S1:
  - The boundary extends only 1.7 ha immediately adjacent to the PDA which equates to a very minimal 0.00076% increase in the PDA; In addition, no aggregate extraction will occur in the area outside of the PDA. Rather the area identified is only intended to keep clean non-contact runoff away from the extraction zone.
- Temporary effluent treatment plant (ETP) discharge pipeline:
  - Benefits of the detailed engineering design include avoidance of shoreline habitat and increased effectiveness of mixing and dispersion of effluent, particularly during the winter months when there is ice buildup. This item has already been permitted by the province.

- Sand washer seasonal water taking:
  - The intake line only extends approximately 300 m in a direct line from the PDA to the lake.
  - The volume of water taking is consistent with the EIS/EA.
- Operational effluent treatment plant discharge pipeline (including the access road):
  - The effluent line was included in the EIS and has been improved to reduce the length within the 120-m shoreline zone from approximately 430 m to 135 m.
- Fresh water intake pipeline (including the access road):
  - The water intake line was included in the EIS and has been improved to avoid wetlands surrounding the Southwest Arm Tributary. The length remains comparable to the EIS.
- Power line and transformer station access road:
  - The required access road to the Longlac Transformer Station was included in the EIS and only required minor adjustment to accommodate Ministry of Transportation spacing requirements on a controlled access highway as identified during permitting.

As discussed, there are no new mitigation measures or plans required to implement these improvements. GGM reviewed each optimization with the Indigenous Communities over a year a half ago. Letters of support acknowledging this are attached here below from each Indigenous Community.

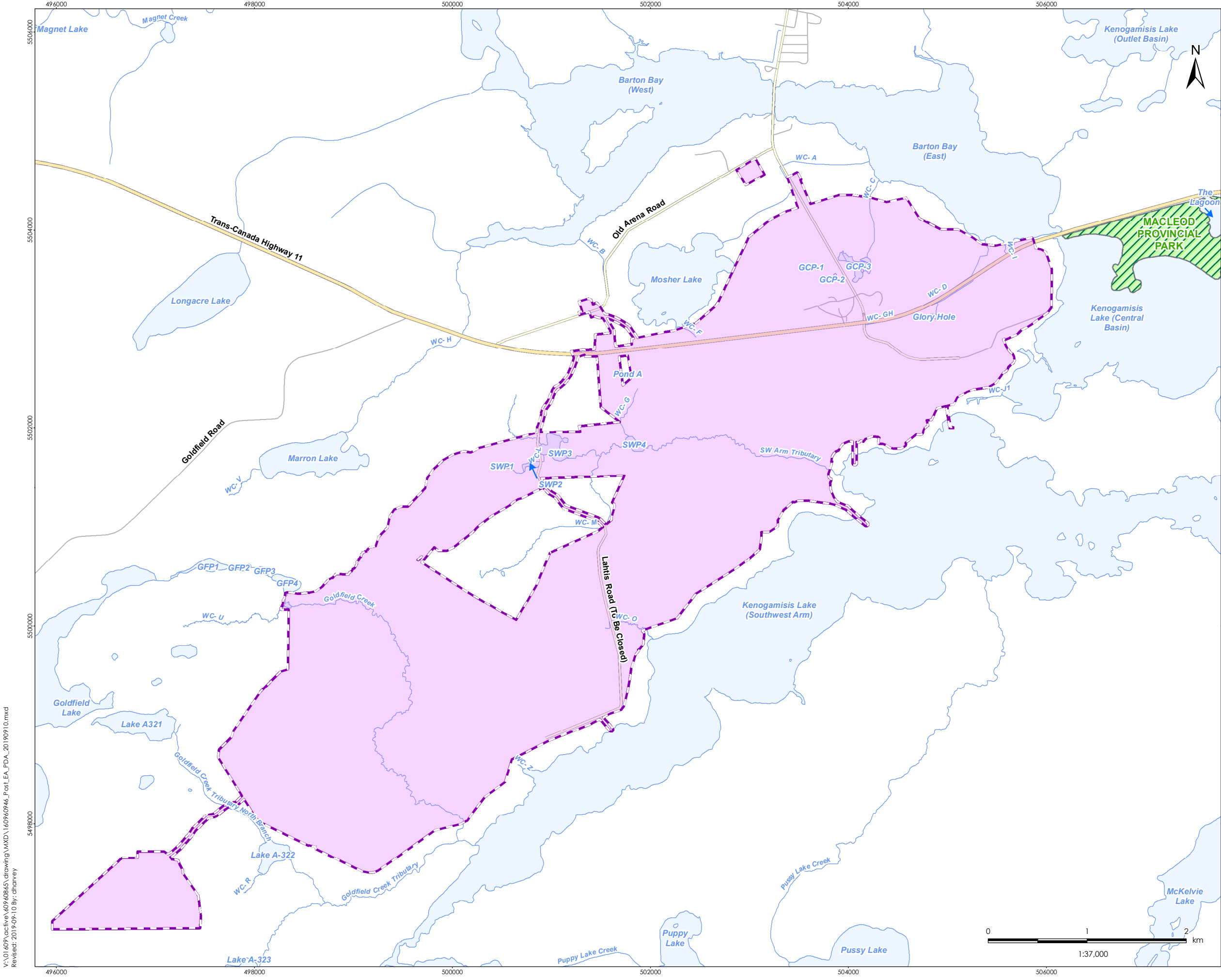
We hope that this information will help inform the IAA to facilitate and timely path forward. We note it has been over a year since GGM submitted the detailed engineering information to the Agency, and since, many of the improvements have already received permit approvals. GGM looks forward to continuing to work with the IAA on meeting the conditions of the Decision Statement as the Project progresses.

Sincerely,

<Original signed by>

Stephen Lines  
Director, Environment & Community Relations

cc: Marc Leger, Impact Assessment Agency of Canada  
Owais Khurshid, Impact Assessment Agency of Canada  
Anjala Puvananathan, Impact Assessment Agency of Canada  
Meghan Bertenshaw, GGM  
Shane Hayes, GGM



Legend

Project Development Area

Existing Features

- Highway
- Major Road
- Local Road
- Watercourse
- Provincial Park
- Waterbody

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.

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Client/Project

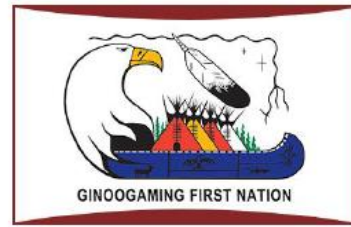
Greenstone Gold Mines GP Inc. (GGM)  
Hardrock Project

Figure No.

1

Title

Project Development Area (PDA)



Steve Lines, Director Environment & Community Relations  
Greenstone Gold Mines  
2381 Bristol Circle, Suite B203  
Oakville, ON  
L6H 4S9

**RE: Hardrock Project Outcome of Detailed Engineering Design Optimizations Report**

Dear Mr. Lines,

This letter is to advise you that Animbiigoo Zaagi'igan Anishinaabek, Aroland First Nation and Ginoogaming First Nation has completed a review of the report titled "Hardrock Project Outcome of Detailed Engineering Design Optimizations." We are satisfied with the report and do not have any concerns with the optimizations as outlined in the report.

We believe that the optimizations are consistent with the Project as presented in the approved Environmental Assessment and provide added benefits when compared to the original design. We do not have any objections to the optimizations being constructed as part of the Project.

If you have any questions about this correspondence, please contact us or our project environmental monitors Mason Shawayahamish (Animbiigoo Zaagi'igan Anishinaabek; mshawayahamish@aza.ca), Louie Mendowegan (Aroland First Nation; lou\_dogg07@hotmail.com) and Jason Chapais (Ginoogaming First Nation; jason.chapais@ginoogamingfn.ca).

Sincerely,

<Original signed by>

Chief Theresa Nelson  
Animbiigoo Zaagi'igan  
Anishinaabek

<Original signed by>

Chief Dorothy Towedo  
Aroland First Nation

<Original signed by>

Deputy Chief Maurice Waboose  
Ginoogaming First Nation

# LONG LAKE #58 FIRST NATION

209 Otter Road  
P.O. Box 609  
Longlac, Ontario  
P0T 2A0



Tel: (807) 876-2292  
Fax: (807) 876-2757

Date: September 21, 2020

Steve Lines, Director Environment & Community Relations  
Greenstone Gold Mines  
2381 Bristol Circle, Suite B203  
Oakville, ON  
L6H 4S9

**RE: Hardrock Project Outcome of Detailed Engineering Design Optimizations Report**

Dear Mr. Lines,

This letter is to advise you that Long Lake #58 First Nation has completed a review of the report titled "Hardrock Project Outcome of Detailed Engineering Design Optimizations." LL#58FN is satisfied with the report and does not have any concerns with the optimizations as outlined in the report.

LL#58FN believes that they are consistent with the Project as presented in the approved Environmental Assessment and provide added benefits when compared to the original design. We do not have any objections to the optimizations being constructed as part of the Project.

If you have any questions about this correspondence, please contact me or Anisa O'Nabigon.

Sincerely,

<Original signed by>

Chief,  
Judy Desmoulin





**Métis Nation of Ontario**  
Lands, Resources and Consultations

October 1<sup>st</sup> 2020

Steve Lines  
Director, Environment and Community Relations  
Greenstone Goldmines  
2381 Bristol Circle, Suite B203  
Oakville, ON, L6H 4S9

*VIA ELECTRONIC MAIL*

Dear Mr. Lines,

**RE: Hardrock Project Outcome of Detailed Engineering Design Optimizations Report**

On behalf of the Métis Nation of Ontario's (MNO) Thunder Bay Métis Council, Greenstone Métis Council, and the Superior Northshore Métis Council (the "Councils") and pursuant to the authorities in the MNO Lakehead/Nipigon/Michipicoten Consultation Protocol, I am writing to advise you that the MNO has had the opportunity to review the report titled "Hardrock Project Outcome of Detailed Engineering Design Optimizations." The MNO is satisfied with the report and does not have any further concerns with the optimizations as outlined in the report.

The MNO believes that they are consistent with the Project as presented in the approved Environmental Assessment and provide added benefits when compared to the original design. We do not have any objections to the optimizations being constructed as part of the Project.

Should you have any further questions please contact Jacqueline Barry, Mineral Development Advisor ([jacquelineb@metisnation.org](mailto:jacquelineb@metisnation.org)), copying the consultations inbox ([consultations@metisnation.org](mailto:consultations@metisnation.org)).

Yours very truly,

<Original signed by>

Tim Sinclair,  
Region 2 Provisional Council of the Métis Nation of Ontario Councillor & Chair of  
the Lakehead / Nipigon/ Michipicoten Traditional Territories Consultation  
committee

cc.  
Lakehead/Nipigon/Michipicoten Traditional Territory Consultation Committee

Kevin Muloin, President of Thunder Bay Métis Council

Trent Desaulniers, President of Superior North Shore Métis Council

William Gordon, President of Greenstone Métis Council

Philip McGuire, Captain of the Hunt, MNO Region 2

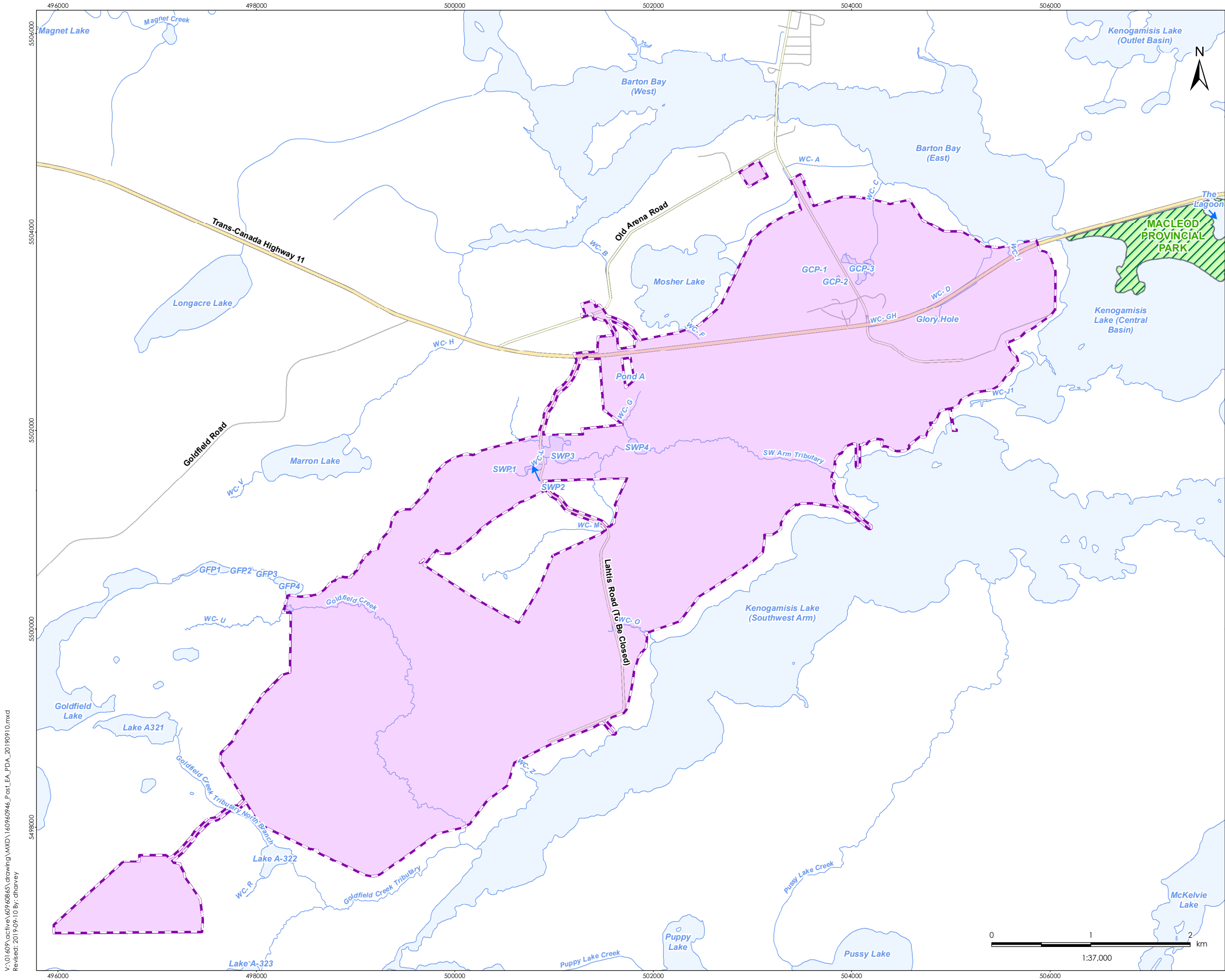
Métis Nation of Ontario – Lands, Resources, and Consultations Branch:

Linda Norheim – Director

Victoria Stinson – Manager

Jacqueline Barry, Mineral Development Advisor





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Revised: 2019-09-10 By: dharvey



Legend

Project Development Area

Existing Features

- Highway
- Major Road
- Local Road
- Watercourse
- Provincial Park
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Notes

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- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

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Client/Project

Greenstone Gold Mines GP Inc. (GGM)  
Hardrock Project

Figure No.

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Project Development Area (PDA)