Marathon Palladium Project Environmental Cultural Heritage Updated Baseline Report

FINAL

November 13, 2020
File: 129673006

Prepared for:

Generation PGM Inc. (GenPGM)

Prepared by:

Stantec Consulting Ltd.

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LIST OF APPENDICES

Abbreviations

CEAA, 2012	Canadian Environmental Assessment Act, 2012
CIAR	Canadian Impact Assessment Registry
EIS	Environmental Impact Statement
IAAC	Impact Assessment Agency of Canada
LSA	Local Study Area
MECP	Ontario Ministry of the Environment, Conservation and Parks
MHSTCI	Ministry of Heritage, Tourism, Sport, and Culture Industries
MOE	Ontario Ministry of Environment
MRSA	Mine Rock Storage Area
NAG	Non-acid Generating
OHT	Ontario Heritage Trust
O. Reg.	Ontario Regulation
PAG	Potentially acid generating
PGM	Platinum group metals
PSMF	Process Solids Management Facility
RSA	Regional Study Area
SSA	Site Study Area
VEC	Valued Ecosystem Components

1.0 INTRODUCTION

Generation PGM Inc. (GenPGM) proposes to develop the Marathon Palladium Project (the "Project"), which is a platinum group metals (PGM) and copper (Cu) open-pit mine and milling operation near the Town of Marathon, Ontario. The Project is being assessed in accordance with the *Canadian Environmental Assessment Act* (CEAA, 2012) and Ontario's *Environmental Assessment Act* (EA Act) through a Joint Review Panel (the Panel) pursuant to the *Canada-Ontario Agreement on Environmental Assessment Cooperation* (2004).

Stantec Consulting Ltd. (Stantec) has been retained by GenPGM to conduct an updated assessment of cultural heritage baseline conditions, including built heritage resources and cultural heritage landscapes, for the Project. This report is provided in response to comments from the Ministry of Tourism, Culture and Sport (now the MHSTCI) to the Joint Review Panel on the EIS (CIAR #310) to address built heritage resources and cultural heritage landscapes.

This cultural heritage baseline study has been completed to inform the Addendum to the Marathon PGM-Cu Environmental Impact Statement (EIS Addendum) as input to the Joint Review Panel process. It has been prepared pursuant to the *Canadian Environmental Assessment Act, 2012* and in consideration of the *Guidelines for the Preparation of an Environmental Impact Statement – Marathon Platinum Group Metals and Copper Mine Project* (EIS Guidelines) (Canadian Environmental Assessment Agency and Ontario Ministry of Environment (MOE) now the Ontario Ministry of the Environment, Conservation and Parks (MECP), 2011).

The information presented in this report is intended to summarize and document changes to the existing environmental conditions relating to built heritage resources and cultural heritage landscapes, relative to those conditions considered in the previous assessment, in order to support the updated assessment of potential environmental effects provided in the EIS Addendum.

The information presented herein was obtained from a review of historical information and the updated design plans for the Project provided by GenPGM.

1.1 PROJECT LOCATION AND SETTING

The Project is located approximately 10 kilometres (km) north of the Town of Marathon, Ontario (Figure 1, Appendix A). Marathon is a community of approximately 3,300 people (Statistics Canada, 2017) located adjacent to the Trans-Canada Highway (Highway 17) on the northeast shore of Lake Superior approximately 300 km east of Thunder Bay and 400 km northwest of Sault Ste. Marie. The centre of the Project footprint sits at approximately 48° 47' N latitude, 86° 19' W longitude (UTM NAD83 N16 Easting 550197 and Northing 5403595). The footprint of the proposed mine location is roughly bounded by Highway 17 and the Marathon Airport to the south, the Pic River and Camp 19 Road to the east, Hare Lake to the west, and Bamoos Lake to the north (Figure 1, Appendix A). Access is currently gained through Camp 19 Road.

The Project is proposed within an area characterized by relatively dense vegetation, comprised largely of a birch and spruce-dominated mixed wood forest. The terrain is moderate to steep, with frequent bedrock outcrops and prominent east-west oriented valleys. Several watercourses and lakes traverse the area, with drainage flowing either eastward to the Pic River or westward to Lake Superior. The climate of this area is typical of northern areas within the Canadian Shield, with long winters and short, warm summers.

The Project is proposed on Crown Land, with GenPGM holding surface and mineral rights for the area. Regional land-use activities in the area include hunting, fishing, trapping and snowmobiling, as well as mineral exploration (and mining) and forestry. Other localized land uses in the area include several licensed aggregate pits, the Marathon Municipal Airport, the Marathon Landfill, a municipal works yard and several commercial and residential properties.

The primary industries in the area have historically been forestry, pulp and paper, mining and tourism. Exploration for copper and nickel deposits in the area extend as far back as the 1920s. A large copper-PGM deposit was discovered in 1963. Advanced exploration programs have continued across the site since then. These programs have been supported by various feasibility studies to confirm the economic viability of extracting the deposits.

Several First Nation and Métis groups were originally identified as having a potential interest in the Project based on Treaty Rights, asserted traditional territory and proximity to the Project. Traditional uses which they have identified as occurring in the area include hunting, trapping, fishing and plant harvesting, with activities generally focused on the larger waterways, such as the Pic River, Bamoos Lake and Hare Lake.

1.2 PROJECT OVERVIEW

The Project is based on the development of an open pit mining and milling operation for copper and platinum group metals. Ore will be mined from the pits and processed (crushed, ground, concentrated) at an on-site processing facility. Final concentrates containing copper and platinum group metals will be transported off-site via existing roadways and/or rail to a smelter and refinery for subsequent metal extraction and separation. Iron sulfide, magnetite and vanadium concentrates may also be produced, depending upon the results of further metallurgical testing and market conditions at that time.

The construction workforce will average approximately 450-550 people, with a peak workforce of an estimated 900 people, and will be required for between 18 and 24 months. During operations, the workforce will comprise an estimated 350 workers. The mine workforce will reside in local and surrounding communities, as well as in an accommodations complex that will be constructed off site.

Most of the mine rock[1] produced through mining activities is non-acid generating (NAG) and will be permanently stored in a purposefully built Mine Rock Storage Area (MRSA). The NAG (also referred to as

[1] Mine rock: rock that has been excavated from active mining areas but does not have sufficient ore grades to process for mineral extraction.

Type 1 mine rock) will also be used in the construction of access roads, dams and other site infrastructure, as needed. Drainage from the MRSA will be collected in a series of collection basins and treated, as necessary, to meet applicable water quality criteria prior to discharge to the Pic River. The remaining small portion of the mine rock is considered to be potentially acid generating (PAG) (also referred to as Type 2 mine rock) and will be stored in the open pits or the Process Solids Management Facility (PSMF). This will ensure that drainage from the Type 2 mine rock will be contained during operations. Following closure, the Type 2 mine rock will be permanently stored below water by flooding the open pits and maintaining saturated conditions in the PSMF to prevent acid generation in the future.

Most of the process solids[2] produced at the site will be NAG (Type 1 process solids) with the minority being PAG (Type 2 process solids). Both the Type 1 and Type 2 process solids will be stored in the PSMF and potentially within the open pits. In both cases, the Type 2 process solids will be managed to prevent acid generation during both the operation and closure phases of the Project. Water collected within the PSMF as well as water collected around the mine site (other than the MRSA), such as water pumped from the pits or run-off collected from the plant site, will be managed within the PSMF. Excess water not needed for processing ore will be discharged, following treatment as necessary, to Hare Lake.

Access to the Project is currently provided by the Camp 19 Road, opposite Peninsula Road at Highway 17. The existing road will be upgraded and utilized from its junction with Highway 17 to a new road running north that will be constructed to access the Project site. The Project will also require the construction of a 115 kV transmission line that will connect to the Terrace Bay-Manitouwadge transmission line (M2W Line). The width of the transmission corridor will be approximately 30 m.

Disturbed areas of the Project footprint will be reclaimed in a progressive manner during all Project phases. Natural drainage patterns will be restored as much as possible. The ultimate goal of mine decommissioning will be to reclaim land within the Project footprint to permit future use by resident biota and as determined through consultation with the public, Indigenous people and government. A certified Closure Plan for the Project will be prepared as required by Ontario Regulation (O. Reg.) 240/00 as amended by O. Reg. 194/06 “Mine Development and Closure under Part VII of the Mining Act” and “Mine Rehabilitation Code of Ontario”.

A further description of the Project and associated activities and phases will be provided under separate cover in the EIS Addendum.

[2] Process solids: solids generated during the ore milling process following extraction of the ore (minerals) from the host material.

1.3 STUDY OBJECTIVES

This cultural heritage baseline study provides information to inform the EIS Addendum for the Project. The objectives of this update were to describe and present available information and characterize changes to the baseline conditions of the cultural and heritage resources in the study area. The scope of the updated cultural heritage baseline study includes the following:

- summary of findings of the existing baseline studies (Section 2.0)
- identification of regulatory guidance for the collection of baseline data (Section 2.0)
- confirmation of spatial boundaries (Section 3.0)
- describe the collection and review of available background information and data, including any additional and/or on-going data collection efforts (Section 4.0)
- analysis of information to characterize existing baseline conditions for built cultural heritage and cultural heritage landscapes and to determine any changes that have occurred since 2009 (Section 5.0)
- provide an updated summary of baseline conditions specific to conditions relevant to the effects being assessed in the EIS Addendum (Section 6.0)

2.0 PREVIOUS CHARACTERIZATION OF EXISTING CONDITIONS

Baseline conditions for physical and cultural heritage resources were established through the completion of two archaeological studies. These studies identified Hare Lake and Bamoos Lake as having high potential for archaeological resources; however no structures or built heritage features were identified.

In comments from the Ministry of Tourism, Culture and Sport (now the MHSTCI) to the Joint Review Panel on the Environmental Impact Statement (CIAR#310), additional information in this regard was requested. As such, in August 2013, *An Assessment of Non-Aboriginal Cultural Heritage/Built Environment/Cultural Landscape Values for the Marathon PGM-CU Project Environmental Impact Statement* (the 2013 assessment) was completed by Ross Archaeological Research and Hamilton Archaeological Consulting (see Appendix B). This assessment was completed in accordance with and to satisfy requirements provided in the *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (MHSTCI Checklist).

The 2013 assessment reviewed the results of the archaeological assessments, completed in 2008 and 2009, and completed supplementary research in the form of interviews. During the course of preparing both archaeological assessments, including field work and historical research, no potential built heritage resources or cultural heritage landscapes were identified. The results of interviews conducted with site experts determined that no potential built heritage resources or cultural heritage landscapes were identified. Therefore, the 2013 assessment concluded that there were no built heritage resources or cultural heritage landscapes within the SSA.

3.0 REGULATORY SETTING

CEAA, 2012 and the EIS Guidelines state that consideration be given to any potential effects that the Project may have on physical and cultural resources, including non-archaeological resources. The EIS guidelines specified that such an assessment be carried out in accordance with the *Reference Guide: Assessing Environmental Effects on Physical and Cultural Heritage Resources* (1996). In 2015, the Canadian Environmental Assessment Agency released the *Technical Guidance for Assessing Physical and Cultural Heritage or any Structure, Site or Thing that is of Historical, Archaeological, Paleontological or Architectural Significance under the Canadian Environmental Assessment Act, 2012.* This guidance document replaced the reference guide identified within the EIS guidelines. These guidance documents outline considerations that should be taken when assessing effects of a project on cultural heritage resources.

Built heritage resources and cultural heritage landscapes are governed by different legislation depending on the scope of value or interest identified. This could include federal, provincial, or municipal legislation. With regards to the CEAA, 2012 requirements and EIS Guidelines, the Ministry of Heritage, Tourism, Sport, and Culture Industries (MHSTCI) have a framework to consider the potential for identification of built heritage resources and cultural heritage landscapes that aligns with the requirements of CEAA ,2012 and the EIS Guidelines. As described in Section 5.1, the MHSTCI Checklist has been completed to satisfy regulatory requirements.

4.0 STUDY AREA

For the purpose of this assessment, the spatial boundaries considered include the direct and indirect effects related to site preparation, construction, operation, and decommissioning/closure of the Project. These areas are generally consistent with the spatial boundaries used in the EIS (2012) and associated supporting information documents, with appropriate revisions/refinements and rationale provided below.

4.1 SITE STUDY AREA (SSA)

The Site Study Area (SSA) is the direct footprint of the Project. Based on refinements to the Project footprint, and in recognition of project components originally located outside of the SSA, a revised SSA has been developed that encompasses the immediate area in which Project activities and components may occur and, as such, represents the area within which direct physical disturbance may occur as a result of the Project, whether temporary or permanent. The SSA is consistent for all valued ecosystem components (VECs) as depicted on Figure 1.

4.2 LOCAL STUDY AREA (LSA)

The Local Study Area (LSA) is the maximum area within which environmental effects from Project activities and components can be predicted or measured with a reasonable degree of accuracy and confidence. For built heritage resources and cultural heritage landscapes, this area has been defined by a 50 metre buffer around the SSA based on the potential for vibration-related effects. The LSA for cultural heritage is depicted on Figure 2 (Appendix A).

4.3 REGIONAL STUDY AREA (RSA)

The Regional Study Area (RSA) is the area within which residual environmental effects from Project activities and components may interact cumulatively with the residual environmental effects of other past, present and future (i.e., certain or reasonably foreseeable) physical activities. The RSA is based on the potential for interactions between the Project and other existing or future potential projects. As such, the RSA was defined as the municipal limits of the Town of Marathon. Where the municipal boundary does not encompass the SSA, a one kilometre buffer was used. The RSA for cultural heritage is depicted on Figure 2 (Appendix A).

5.0 METHODOLOGY

Stantec completed an evaluation of potential built heritage resources and cultural heritage landscapes using the MHSTCI Checklist. This checklist is a screening tool used to identify known and potential resources of cultural heritage value, along with considerations for local and indigenous knowledge. This assessment was completed to identify potential properties and structures of cultural heritage value that could potentially interact with the Project.

The assessment included a review of current aerial photography of the site, desktop screening of historic records, data requests from local and provincial sources, and a review of online databases to determine the presence of previously identified built heritage resources and cultural heritage landscapes. Requests for information were also distributed to identify indigenous interest on the site regarding cultural, spiritual, and land use considerations. These methods are described in more detail in the following sections.

5.1 DESKTOP REVIEW AND DATA SOURCES

Historic mapping and current aerial photography of the SSA was reviewed to identify the presence of built or landscape features which may be older than 40 years of age or hold potential heritage value. The following data sources were also reviewed to identify heritage interest within the SSA and LSA.

- The Directory of Federal Heritage Designations - https://www.pc.gc.ca/apps/dfhd/default_eng.aspx
- The Ontario Heritage Trust Plaque Database - https://www.heritagetrust.on.ca/en/online-plaque-guide
- Ontario's Historical Plaques Database - http://www.ontarioplaques.com/index.html
- Canada's Historic Places Registry - https://www.historicplaces.ca
- CanadaGenWen's Cemetery Project - http://cemetery.canadagenweb.org/ON/
- The Canadian Heritage Rivers System - https://chrs.ca/
- Ontario Trails Database - https://www.ontariotrails.on.ca/index.php?url=trails
- Ontario's Municipal Heritage Committee Directory - http://www.mtc.gov.on.ca/en/heritage/lacac.shtml#M

A series of information requests were provided to the MHSTCI, Ontario Heritage Trust (OHT), the Town of Marathon, the Marathon Museum, the local historical society, and Biigtigong Nishnaabeg (BN). These organizations were contacted to identify heritage interests within the SSA and LSA. In each instance, a map of the SSA was provided and a request was made for information regarding heritage or historical interest within or adjacent to the SSA. As part of ongoing discussions, a request for information regarding cultural, spiritual, and land use was made to all indigenous groups. BN is the only community that

identified areas within the SSA; other communities identified areas within the LSA and RSA as described in Section 6.0 below.

6.0 UPDATED BASELINE CULTURAL HERITAGE CONDITIONS

The results of the mapping and data review as well as the responses to the information requests are as follows:

1. Several buildings immediately south of the SSA that may have been constructed prior to 1980 were identified including the Marathon Airport, Airport Motor Inn, and a gas station. Upon review, none were identified to be within the SSA.

2. Highway 17, as the Trans-Canada Highway, was identified as a historic and important roadway in northern Ontario and Canada. Upon review, the highway was not identified to be within the SSA.

3. A plaque commemorating the Detention of Second World War Military Prisoners was identified within the Town of Marathon. Upon review, the plaque was not identified to be within the SSA.

4. A National Historic Site, Pic River Site, was identified in the Town of Marathon. Upon review, the site was not identified to be within the SSA.

5. Two cemeteries were identified within the Town of Marathon. Upon review, the cemeteries were not identified to be within the SSA.

6. The MHSTCI, OHT, and Town of Marathon reported no heritage or historical interest within or adjacent to the SSA.

7. The Marathon Museum did not provide a response and the local historical society representative did not identify heritage or historical interests but did respond to an inquiry regarding the Marathon Airport property providing the date of construction as 1948. Upon review, the Marathon Airport was not identified to be within the SSA. No other heritage or historical interests were identified.

8. The BN reported extensive use of the lands within and surrounding the SSA for traditional and resource-related pursuits as summarized in Section 5.11.7 of the EIS Main Report (EcoMetrix 2012). Although used for traditional purposes, based on the information provided there were no built heritage resources or cultural heritage landscapes within the SSA identified.

9. The Pays Plat First Nation identified a historic campsite located at the mouth of Stream 6 at Lake Superior. Upon review, the historic campsite was not identified to be within the SSA.

7.0 SUMMARY AND CONCLUSIONS

Based on the findings of the MHTSCI Checklist, no indicators for potential built heritage resources or cultural heritage resources were identified. This finding is consistent with the previously completed 2013 assessment and no change to the previous conclusions presented are required as a result of this update. Therefore, there is low potential for built heritage resources or cultural heritage resources to be identified within the SSA. As such, no further assessment is required.

8.0 REFERENCES

Brown, Alan L. 2019. *Ontario's Historical Plaques Database*. Electronic document: http://www.ontarioplaques.com/index.html. Last accessed September 18, 2020.

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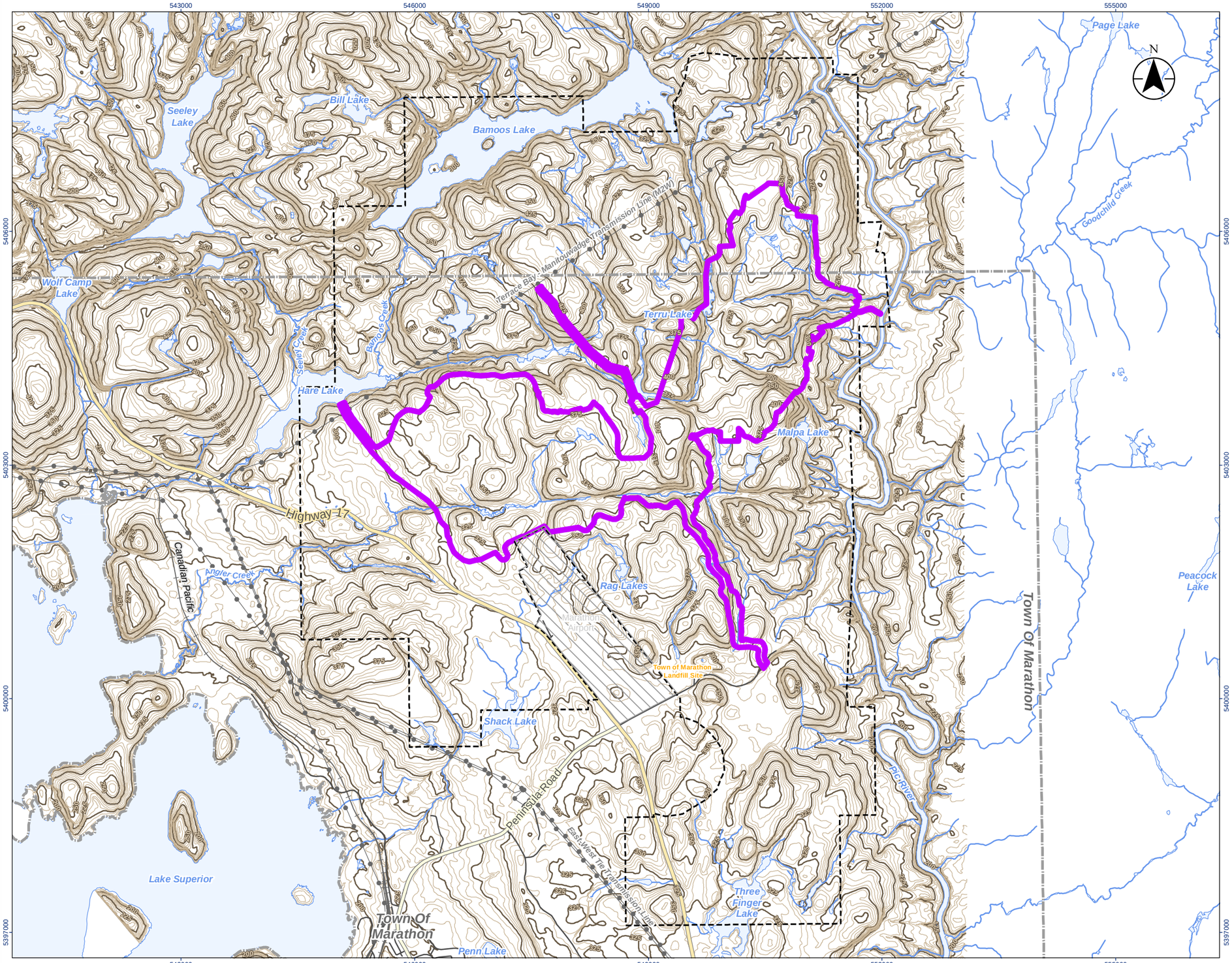
Ross Archaeological Research and Hamilton Archaeological Consulting. 2013. *An Assessment of Non-Aboriginal Cultural Heritage/Built Environment/Cultural Landscape Values for the Marathon PGM-CU Project Environmental Impact Statement*. On file with Generation PGM Inc.

APPENDIX A
Figures



Stantec

Legend

- Project Boundary (MLAS, MENDM Changed 2017)
- Site Study Area Boundary
- Topographic Contour (5 m Intervals)
- Topographic Contour (25 m Intervals)
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- Waterbody

0 1 2 km

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Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.

Project Location
Marathon

129673006 REVA
Prepared by DH on 2020-11-12
Technical Review by ABC on yyyy-mm-dd
Independent Review by ABC on yyyy-mm-dd

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
1

Title
Site Study Area

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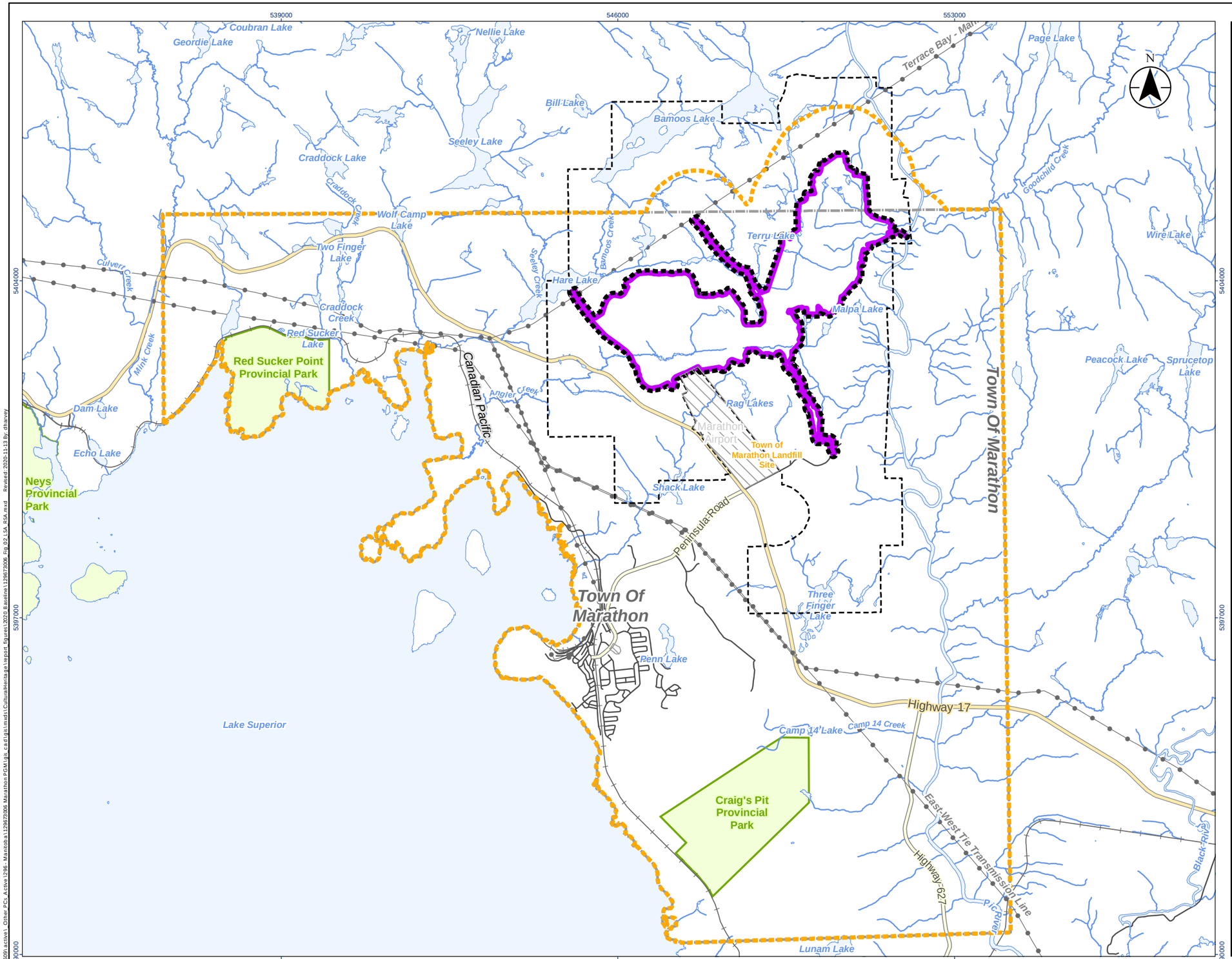

Stantec

Legend

- Project Boundary (MLAS, MENDM Changed 2017)
- Site Study Area Boundary
- Local Study Area
- Regional Study Area
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- Provincial Park
- Waterbody

0 1 2 km

1:80,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.

Project Location
Marathon

129673006 REVA
Prepared by SW on 2020-11-13
Technical Review by DH on 2020-11-13
Independent Review by ABC on yyyy-mm-dd

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
2

Title
Local and Regional Study Area

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APPENDIX B

An Assessment of Non-Aboriginal Cultural Heritage/Built Environment/Cultural Landscape Values for the Marathon PGM-CU Project Environmental Impact Statement

AN ASSESSMENT OF NON-ABORIGINAL CULTURAL HERITAGE/ BUILT ENVIRONMENT/CULTURAL LANDSCAPE VALUES for the MARATHON PGM-CU PROJECT ENVIRONMENTAL IMPACT STATEMENT

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August 6, 2013

MARATHON PGM-CU PROJECT ENVIRONMENTAL IMPACT STATEMENT – Review of Non-Aboriginal Cultural Heritage/Built Environment/Cultural Landscape Values

Overview and Purpose

The Marathon PGM-CU Project is currently completing a federal and provincial environmental assessment through a Joint Review Panel. As part of the environmental assessment, the Ministry of Tourism, Culture and Sport (MTCS), in its initial feedback to Stillwater Canada Inc. (SCI) regarding the Main EIS Report and its supporting documentation, indicated that more information pertaining to potential built heritage and cultural heritage landscapes was needed. MTCS implemented new Standards and Guidelines for Consulting Archaeologists since the original assessment described below. These guidelines now require the identification and documentation structures and built features including heritage structures and landscapes over 40 years old that will affect assessment strategies. To this end, we have conducted this further review for SCI. MTCS also requested a brief summary of the exploration history of the site within the context of built and heritage landscapes. This summary is provided in Appendix B.

Background – Archaeological Assessments

Stillwater Canada Inc. is planning to build an open pit mine in the study area which will produce copper and platinum group metals. The proposed Project is located approximately 10 km north of the Town of Marathon. The Project site is remote except for a few exploration trails that have been carved through the extensively forested, rugged and steep terrain. There is no history of European settlement.

Stage 1 and 2 archaeological assessments were completed on the Project site by qualified experts in 2008 and 2009. The Stage 1and 2 archaeological assessment of the proposed mine site completed in 2008 by Woodland Heritage Services Ltd. (Dalla Bona, 2008) included both an aerial and ground survey and found no evidence of historical structures or cultural heritage landscapes. He concluded:

> "*The sheer difficulty of accessing the area on foot, coupled with the extensive wetlands and the steep terrain all combine to suggest that the area is not high archaeological potential.*"

Dalla Bona's (2008) generalizations about the study area were confirmed by later evaluation by the authors (Ross, 2009), who also found no evidence of significant archaeological resources within the area that would be disturbed by the development of the mine. This is supported by Figure 1 that offers a satellite image of the area of interest

overlaid with contour lines (15 m contour interval), and also the limit of the mine claim and the area of proposed surface modification.

For the 2009 archaeological assessment the authors, together, completed field work including a review of the Pic River First Nation Cultural Heritage Map, discussions with First Nation representatives and a detailed helicopter fly over of the study area and the proposed mine site. No built heritage or cultural heritage landscapes were identified within the study area that was the subject of the 2009 archaeological assessment.

The Ontario Ministry of Tourism, Culture and Sport (MTCS) approved both reports and accepted them into the provincial register of archaeological reports.

Further Consideration of Built and Cultural Heritage Landscapes

Using our knowledge of the Project site, we reviewed the MTCS checklist to screen for potential impacts to non-aboriginal built heritage and cultural heritage landscapes (see Appendix A). The MTCS checklist includes a series of questions regarding the potential presence of features having recognized cultural value, built heritage resources and/or cultural heritage landscapes. Note that only non-aboriginal features are considered herein as it has been agreed that consideration of potential aboriginal built and heritage landscape features are matters that will be dealt with together by potentially affected Aboriginal peoples and SCI.

Based on the screening assessment it is apparent that there are no features having recognized cultural value, built heritage resources and/or cultural heritage landscapes that will potentially be affected by the development of the Project.

Question 5 (bullet 1) of the questionnaire asks “Does the subject property contain landscape features such as burial sites and/or cemeteries?” Given that there has never been any European settlement in the area, it would be highly unlikely that a cemetery was built without some oral or written history giving a location. If there were individual unmarked burials in the study area, it would be almost impossible to locate these using standard archaeological field techniques.

To confirm the 2008 and 2009 observations, interviews were conducted on July 29, 2013 with Dr. Robert Foster, Zoologist, Northern Bioscience and on August 1, 2013 with Brian Fraser, Senior Aquatic Scientist, EcoMetrix Inc.

Robert Foster has done extensive field work in the area, both on the ground and conducting various aerial surveys (Figure 2). He conducted a detailed flyover for a large mammal survey at 250 m in height and in intervals of 250 m during the winter when the absence of tree cover offered excellent visibility. He reported that he did not see any built structures.

Brian Fraser has spent approximately 6 to 8 weeks in the project area conducting both aerial and extensive ground surveys. He also reports that he has not encountered any built structures.

Conclusion

There are no built heritage or cultural heritage landscapes in the study area.

Bibliography

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Ontario Ministry of Tourism, Culture and Sport
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Ross W. A.
2009 *A Stage 1 and 2 Archaeological Assessment of Hare Lake and Hare Creek North of Marathon, McCoy Township, Ontario*. Ross Archaeological Research Associates, manuscript on file.

Appendix A

Screening for Impacts to Built Heritage and Cultural Heritage Landscapes

This checklist is intended to help proponents determine whether their project could affect known or potential cultural heritage resources. The completed checklist should be returned to the appropriate Heritage Planner or Heritage Advisor at the Ministry of Tourism and Culture.

Step 1 – Screening for Recognized Cultural Heritage Value

YES	NO	Unknown	
D	X	D	1. Is the subject property designated or adjacent* to a property designated under the *Ontario Heritage Act*?
D	X	D	2. Is the subject property listed on the municipal heritage register or a provincial register/list? (e.g. Ontario Heritage Bridge List)
D	X	D	3. Is the subject property within or adjacent to a Heritage Conservation District?
D	X	D	4. Does the subject property have an Ontario Heritage Trust easement or is it adjacent to such a property?
D	X	D	5. Is there a provincial or federal plaque on or near the subject property?
D	X	D	6. Is the subject property a National Historic Site?
D		X	7. Is the subject property recognized or valued by an Aboriginal community?

Step 2 – Screening Potential Resources

YES	NO	Unknown	
			Built heritage resources
			1. Does the subject property or an adjacent property contain any buildings or structures **over forty years old**† that are:
D	X	D	• Residential structures (e.g. house, apartment building, shanty or trap line shelter)
D	X	D	• Farm buildings (e.g. barns, outbuildings, silos, windmills)
D	X	D	• Industrial, commercial or institutional buildings (e.g. a factory, school, etc.)
D	X	D	• Engineering works (e.g. bridges, water or communications towers, roads, water/sewer systems, dams, earthworks, etc.)
D	X	D	• Monuments or Landmark Features (e.g. cairns, statues, obelisks, fountains, reflecting pools, retaining walls, boundary or claim markers, etc.)
D	X	D	2. Is the subject property or an adjacent property associated with a known architect or builder?
D	X	D	3. Is the subject property or an adjacent property associated with a person or event of historic interest?
D	X	D	4. When the municipal heritage planner was contacted regarding potential cultural heritage value of the subject property, did they express interest or concern?
YES	NO	Unknown	**Cultural heritage landscapes**
			5. Does the subject property contain landscape features such as:
D		X	• Burial sites and/or cemeteries
D	X		• Parks or gardens
D	X		• Quarries, mining, industrial or farming operations
D	X		• Canals
D	X		• Prominent natural features that could have special value to people (such as waterfalls, rocky outcrops, large specimen trees, caves, etc.)
D	X		• Evidence of other human-made alterations to the natural landscape (such as trails, boundary or way-finding markers, mounds, earthworks, cultivation, non-native species, etc.)
D	X		6. Is the subject property within a Canadian Heritage River watershed?
D	X		7. Is the subject property near the Rideau Canal Corridor UNESCO World Heritage Site?
D			8. Is there any evidence from documentary sources (e.g., local histories, a local recognition program, research studies, previous heritage impact assessment reports, etc.) or local knowledge or Aboriginal oral history, associating the subject property/ area with historic events, activities or persons?

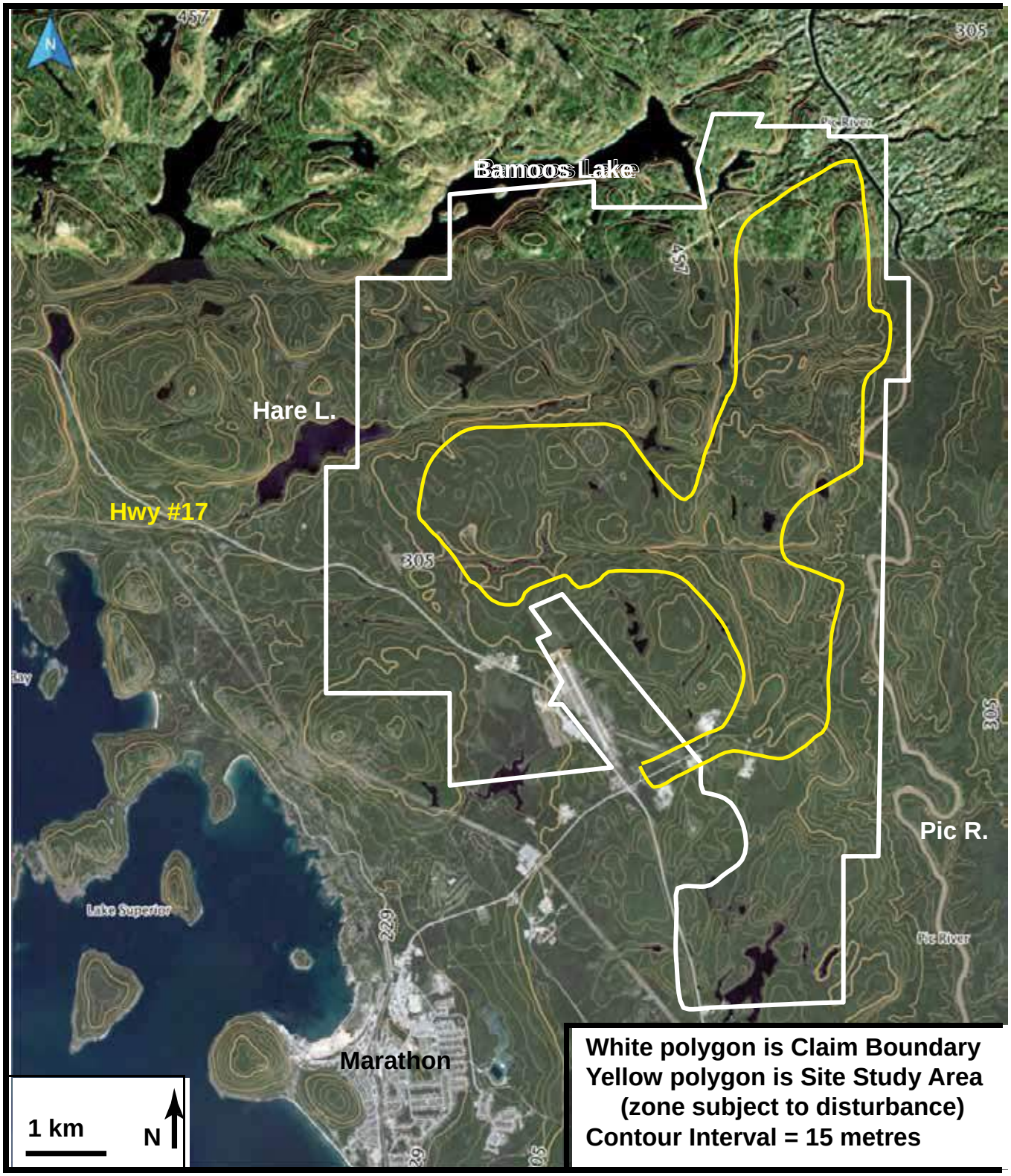
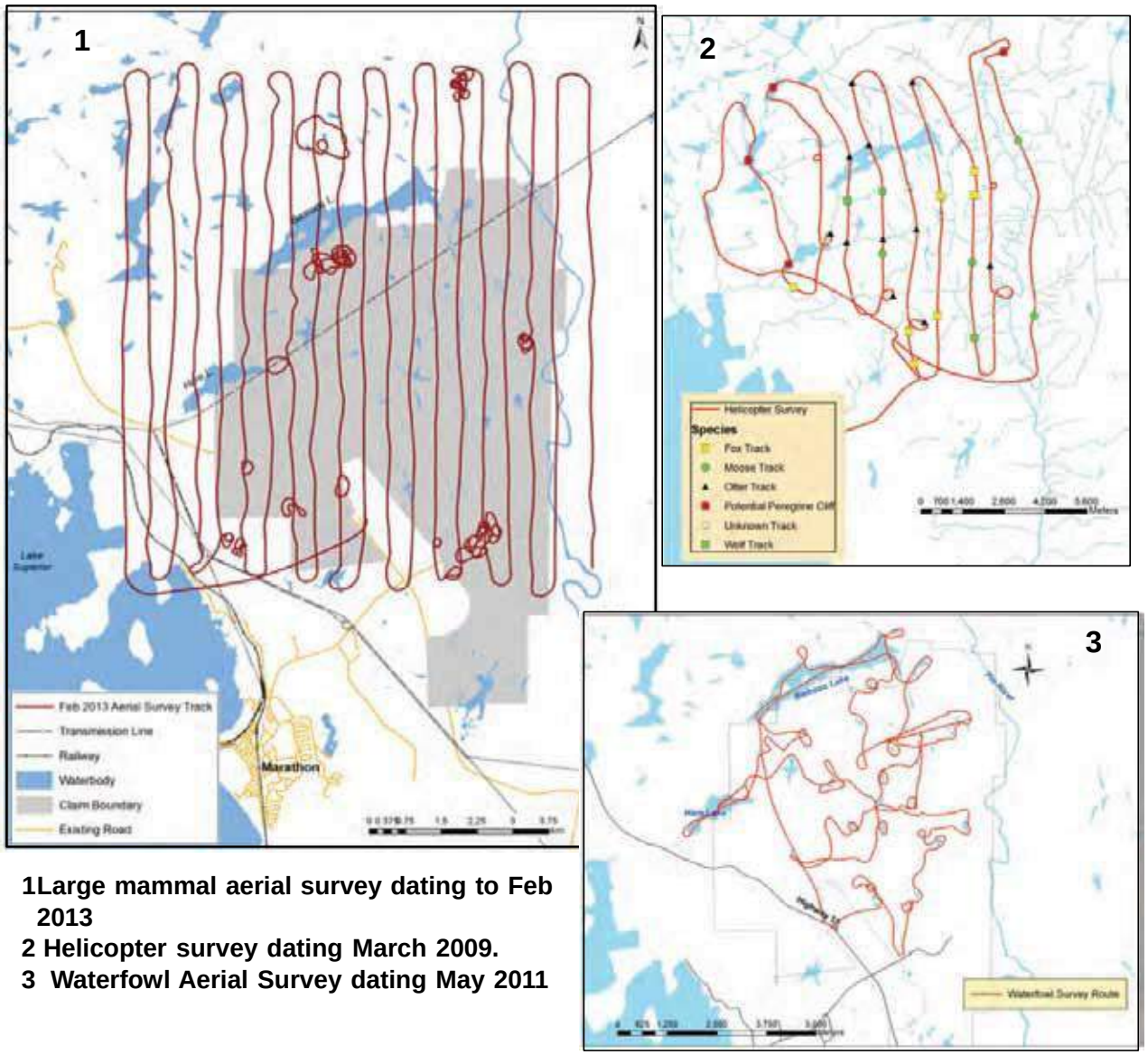


Figure 1 Satellite image of the study area, with contours, claim boundary and site study area superimposed.



1Large mammal aerial survey dating to Feb 2013
2 Helicopter survey dating March 2009.
3 Waterfowl Aerial Survey dating May 2011

Aerial biological survey transects over study area conducted by Dr. Robert Foster, with observers Al Harris, Brian Ratcliff and Ted Armstrong.

Figure 2: Select aerial survey transect GPS tracks provided by Dr. Robert Foster and derived from the extensive biological surveys conducted in the area.

Appendix B

A description of historical mineral exploration activities at the proposed Marathon PGM-Cu Project site (the "site") are provided by Walford and Henry (2001) and RPA (2004). More recent mineral exploration activities were described by P & E Mining Consultants Inc. (2006), as well as by EcoMetrix (2010) and Stillwater Canada Inc. (SCI) et al. (2012). SCI et al. (2012) is the most recent summary of the mineral exploration activities undertaken at the site.

Exploration for base metals (copper and nickel) in the Coldwell Complex did not start until 1954, after several copper sulphide showings were uncovered during efforts at iron ore exploration, which had been ongoing in the region since about 1930. There is no record of exploration within the project site until 1963 when Anaconda American Brass Limited staked approximately180 claims and began an active exploration program for copper.

During the past four decades, the site has undergone several phases of exploration and economic evaluation, including geophysical surveys, prospecting, trenching, diamond drilling programs, geological studies, resource estimates, metallurgical studies, mining studies, and economic analyses.

Key aspects of the exploration history of the site as provided by the sources referenced above are highlighted in Table 1. The information in Table 1 focusses on the period from 1960s onward, the most intensive period of mineral exploration at the site.

In summary, these activities have not left a physical legacy of physical and/or cultural heritage resources on the site. This has been confirmed by on-the-ground and areal (helicopter) observations made by exploration geologists (pers. comm. David Good, VP Exploration, SCI) and targeted studies undertaken on the site by trained professionals as part of the environmental assessment process (pers. comm. Bill Ross, Ross Archaeological Associates), as well as incidental observations made by various other members of the environmental assessment team. It is apparent that any structures constructed at the time that the various phases of exploration were undertaken were temporary in nature and have been removed from the site. There is no historic mine-related infrastructure on-site (adits, portals, head-frames) as no mining has ever been conducted. Moreover, the exploration activity on site has been limited to shallow surface trenching and drilling so there is no physical legacy of any underground workings activity.

References

Marathon PGM Corp. et al. 2010. Marathon Platinum Group Metals and Copper Project – Project Description – Submitted to the Major Projects Management Office and the Canadian Environmental Assessment Agency. February 2010.

P & E Mining Consultants Inc. 2006. Technical Report and Resource Estimate on the Marathon PGM-Cu Property Marathon Area, Thunder Bay Mining District, Northwestern Ontario, Canada for Marathon PGM Corporation, dated March 24, 2006.

RPA. 2004. Report on the Marathon PGM-Cu Project, Prepared for Marathon PGM Corporation,

Roscoe Postle Associates Inc., Toronto, Ontario, Canada. Revised April 26, 2004.

Stillwater Canada Inc. (SCI) et al. 2012. Marathon Platinum Group Metals and Copper Project – Environmental Impact Statement – Main Report Submitted to the Joint Review Panel. June 2012.

Walford, P.C. and Hendry, J.W., 2001, Marathon Palladium Project Preliminary Assessment and Technical Report: Geomaque Explorations Ltd., NI 43-101 Technical Report, April 9, 2001.

Table 1: Mineral Exploration Activities at the Marathon PGM-Cu Project Site, post-1960	
Anaconda Canada (1960s)	In 1963, Anaconda acquired the Marathon property and carried out systematic exploration work including diamond drilling of 36,531 m in 173 drill holes. This culminated in the discovery of a large copper-PGM deposit. Many of the holes were drilled in areas off the present project site. Anaconda carried out a test pitting program that recovered 350 tonnes of material and had it tested at its Extraction Metallurgy Research Division ("EMRD") facilities. Anaconda conducted a number of metallurgical tests intermittently from 1965 to 1982, as described below under Mineral Processing and Metallurgical Testing. Anaconda's primary objective was to improve metallurgical recoveries of copper and increase the copper concentrate grade. Anaconda discontinued further work on the project in the early 1980s due to low metal prices at the time.
Fleck Resources (later PolyMet Mining Corp.) (1980s)	In 1985 Fleck purchased a 100% interest in the Marathon PGM-Cu Project with the objective of improving the project economics by focusing on the platinum group element (PGM) values of the deposit. Fleck carried out an extensive program, which included re-assaying of the Anaconda drill core, further diamond drilling, surface trenching of the mineralized zones, bulk sampling and a pilot plant testing, at Lakefield Research Limited. The Fleck drilling totaled 3,615 m in 37 diamond drill holes. On June 10, 1998, Fleck changed its name to Polymet Mining Corp.
Geomaque Explorations (2000s)	In 2000 Geomaque acquired certain rights to the Marathon PGM-Cu Project through an option agreement with Polymet. Geomaque advanced 15 diamond drill holes totaling 3,158 m.
Marathon PGM Corp. (2000s)	Marathon PGM Corp. (MPGM) acquired the Marathon PGM-Cu deposit from Polymet in December 2003. MPGM funded programs of advanced exploration and diamond drilling on a continuous basis between June 2004 and 2009. Over this period a total of 100,694 metres was drilled in 511 holes. Drilling was conducted across the Project site for various purposes including: to upgrade or expand the resource; for condemnation holes at the process solids management area, crusher and mills sites; and, to further define the resource.
Stillwater Mining Company and Stillwater Canada Inc. (2010s)	Stillwater Mining Company acquired all of the outstanding shares of Marathon PGM Corp. on November 30, 2010. On December 31, 2010 Stillwater Mining Company formed a Canadian corporation, Stillwater Canada Inc., which officially became the new proponent of the Marathon PGM-Cu Project.