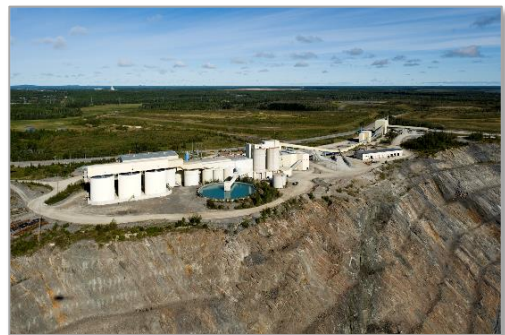




CENTURY GOLD PROJECT

PROJECT DESCRIPTION FOR A
NEW PROCESSING FACILITY AND
REDEVELOPMENT OF AN EXISTING OPEN PIT



July 2018
Ver. 3



LIST OF ABBREVIATIONS / MEASUREMENT UNITS

°C	degrees Celsius
asl	above sea level
CEA Agency	Canadian Environmental Assessment Agency
CEAA, 2012	<i>Canadian Environmental Assessment Act, 2012</i>
EA	environmental assessment
EIS	Environmental Impact Statement
ha	hectare
km	kilometre
km ²	square kilometre
M	million
m	metre
m ³	cubic metre
mm	millimetre
Mm ³	million cubic metre
MENDM	Ontario Ministry of Energy, Northern Development and Mines
MECP	Ontario Ministry of Environment, Conservation and Parks
MNR	Ontario Ministry of Natural Resources
MNRF	Ontario Ministry of Natural Resources Forestry
MRCA	Mattagami Region Conservation Authority
Mt	million tonnes
No.	number
PGM	Porcupine Gold Mines
RDA	Resource Development Agreement
t	tonnes
TMA	tailings management area
tpd or t/d	tonnes per day

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1.0 GENERAL INFORMATION AND CONTACTS

1.1 Nature of the Designated Project

Porcupine Gold Mines | Goldcorp Canada Ltd. (Goldcorp) currently owns and operates the Porcupine Gold Mines (PGM) in Timmins in northeastern Ontario (Figures 1-1 and 1-2) which consist of the: operating mines, closed / inactive mining properties (Figure 1-3), as well as exploration sites. The Borden Mine, Hollinger Mine, Hoyle Pond Mine, Dome Mine and Pamour Mine are proposed, current or past feeds to a shared processing plant located at the Dome Mine. The Dome Mine has been in operation for over a century, with associated onsite processing facilities being updated or replaced over time as needed for operational efficiencies. The Dome Mine open pit ceased operation in 2008 and the Dome underground operations ceased at the end of 2017. The Dome Processing Plant remains in operation to process ore from other mines owned by PGM and/or other custom milling sources as required.

Goldcorp proposes to construct a new processing facility and associated facilities, and redevelop an existing open pit on this historic site as the Century Gold Project (or Project), as defined herein for Federal regulatory purposes. This redevelopment will provide new opportunities to the community and region.

The Century Gold Project is located in southeast Timmins, Ontario and west of the neighbourhood of South Porcupine, at the joining of Tisdale, Whitney, Deloro and Shaw Townships (Figure 1-3). It is accessible by Gold Mine Road which connects to the existing City of Timmins road network, and Ontario Provincial Highway 101. Engineering and environmental studies are ongoing to determine and confirm the technical and economic aspects of the Project, and submission of this Project Description is intended to engage the Federal government and initiate the determination of Federal environmental assessment (EA) requirements, if any.

1.2 General Information and Contacts

Project Name: Century Gold Project

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Goldcorp can also be reached regarding the Century Gold Project by e-mail (community.feedback@goldcorp.com) or telephone (705-235-6571).

Goldcorp is a leading gold producer focused on responsible mining practices throughout the Americas. A Canadian company headquartered in Vancouver, British Columbia, Goldcorp employs more than 15,000 people worldwide. Goldcorp operates a number of mines and processing facilities in Ontario, and is a major employer in Timmins, Ontario.

The Company is committed to being responsible stewards of the environment and to maintaining the highest health and safety standards possible. Goldcorp is committed to transparent and ethical behaviour that contributes to sustainable development and governing business as a natural resource developer throughout all operations and daily activities. Goldcorp management is accountable to employees, contractors, local communities, regulators, and the general public. They believe that part of being a responsible corporate citizen means participating in national and international organizations that promote its values, including:

- Business for Social Responsibility, a global non-profit organization that works with a network of more than 250 members and partners to develop sustainable business strategies and solutions.
- Carbon Disclosure Project focused on persuading companies to measure, manage, disclose and ultimately reduce its greenhouse gas emissions.
- The Global Reporting Initiative which requires organizations to measure its performance against specific economic, environmental and social benchmarks.
- International Council on Mining and Metals, an international organization that promotes safety, fairness and sustainability in mining.

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- International Cyanide Management Code, a voluntary initiative that promotes the safe management of cyanide. All of Goldcorp's operating mines are certified and Goldcorp intends to pursue certification for the Century Gold Project once it becomes a producing mine.
- Mining Association of Canada Towards Sustainable Mining that promotes the principles of engaging with communities, following environmental best practices, and emphasizing health and safety.
- Women's Empowerment Principles, a joint initiative of United Nations Global Compact and United Nations Women that promotes gender equality in the workplace.

1.3 Overview of Consultation and Engagement to Date

Goldcorp considers itself part of the communities in which it operates. Success is dependent on the collaborative, team-oriented, partner-style working relationships with employees, contractors, local and Indigenous communities, and other stakeholders. These relationships support the exchange of experiences, resources and efforts.

Engagement and consultation is implemented through an existing Goldcorp team and Century Gold Project will build on these relationships and agreements. Goldcorp is committed to consulting and engaging with local and regional regulators, stakeholders and Indigenous communities as part of its ongoing PGM operations in Timmins. Goldcorp intends to build on these relationships for the Century Gold Project redevelopment.

1.3.1 Government and Stakeholder Engagement

Goldcorp has initiated consultation and engagement on the Century Gold Project jointly with the ongoing PGM operations in Timmins. As the project planning and design progresses, there will be specific consultation and engagement regarding the Century Gold Project. Key government agency and other stakeholders engaged to date are listed below. The agencies noted in the list below with an asterisk (*) were provided with a draft copy of this Project Description for comment. For ease of reference current names are utilized for the Provincial Ministries.

Federal Government Agencies:

- Canadian Environmental Assessment Agency (CEA Agency) *.

Provincial Government Ministries:

- Ministry of Energy, Northern Development and Mines (MENDM) *;
- Ministry of Natural Resources and Forestry (MNRF) *; and
- Ministry of the Environment, Conservation and Parks (MECP) *.

Local Government:

- City of Timmins (Community Development Council) *; and
- Mattagami Region Conservation Authority (MRCA) *.

Public and Other Stakeholders:

- Hydro One; and
- Union Gas.

Comments received on the Draft Project Description were addressed through revisions in the Final Project Description or will be addressed directly with the agency involved.

Goldcorp anticipates that the list of regulatory agencies and other stakeholders may evolve and expand through the various project stages to reflect varying levels of interest and issues over time.

1.3.2 Indigenous Engagement

Goldcorp's commitment is to develop lasting relationships with local Indigenous communities, built on trust, mutual respect and constructive engagement, and contribute to the sustainable development of the Timmins-area mining operations, providing long-term economic benefits.

Goldcorp recognizes the importance of working with and learning from local Indigenous communities in its operating areas, as has been demonstrated through its corporate actions and activities in the Timmins area to date. Goldcorp have established relationships through a Resource Development Agreement (RDA) with four local Indigenous groups (Figure 1-2) for the PGM operations: Mattagami First Nation, Wahgoshig First Nation, Flying Post First Nation and Matachewan First Nation. A Preliminary Draft of this Project Description was provided to the RDA Collaboration Committee on April 6, 2018. The opportunity for this preliminary review, was intended to inform the development and issuance of a Draft Project Description to the communities and regulatory authorities (see Section 1.3.1 for the list of regulatory recipients).

On May 4, 2018 the Draft Project Description (same version as issued to the regulatory agencies) was provided by Goldcorp to the following Indigenous communities to allow for commentary:

- Mattagami First Nation;
- Wahgoshig First Nation;
- Flying Post First Nation; and
- Matachewan First Nation.

As of issuance of this Final Project Description, preliminary comments on the Draft Project Description were received through the RDA Consultation Committee. These comments were addressed through revisions in the Final Project Description or will be addressed directly with the committee members as appropriate.

Goldcorp has initiated discussions with the Métis Nation of Ontario and Taykwa Tagamou Nation, to determine the levels of interest in the Century Gold Project.

Goldcorp understands that the list of Indigenous communities to be engaged regarding the century Project may evolve based on regulatory advice and could require engagement, consultation and/or notification to other Indigenous communities.

Further information regarding engagement activities with local Indigenous communities is provided in Section 6.

1.4 Environmental Assessment and Approvals

The Century Gold Project is located within the Province of Ontario and must meet the regulatory requirements of the Federal and Provincial governments.

1.4.1 Federal Environmental Assessment Requirements

The proposed Century Gold Project as currently understood may require completion of a Federal EA, pursuant to the *Canadian Environmental Assessment Act, 2012* (CEAA, 2012)¹. The Federal Regulation Designating Physical Activities (SOR/2012-147) pursuant to the *Canadian Environmental Assessment Act, 2012* identifies the physical activities that constitute designated projects that require submission of a Project Description, as they could involve completion of a Federal EA. The following physical activities are part of the Century Gold Project:

16. *The construction, operation, decommissioning and abandonment of a new:*
(b) metal mill with an ore input capacity of 4,000 t/day or more;

The Century Processing Facility is expected to operate year-round on a continuous (24-hour) basis, at a maximum rate of up to 70,000 tonnes of ore per day (tpd). As a result, Goldcorp has submitted this Project Description to the CEA Agency, to inform a decision on whether a Federal EA is required for the Century Gold Project.

As the Century Gold Project is a redevelopment of a brownfield site on which a gold mine is currently present, the following designated activity is part of the Century Gold Project:

17. *The expansion of an existing:*
(c) rare earth element mine or gold mine, other than a placer mine, that would result in an increase in the area of mine operations of 50% or more and a total ore production capacity of 600 t/day or more;

The mine operations area for the Dome Mine is approximately 1,125 hectares (ha) according to the filed Provincial Closure Plan (Golder 2018a). Based on the preliminary design information,

¹ Goldcorp acknowledges that the Federal project review process may change based on the legislation currently tabled for review.

the operations area for the Century Gold Project is approximately 2,160 ha, and Section 17 may apply.

If the CEA Agency determines that a Federal EA is required, this Project Description is intended to assist in the development of the Environmental Impact Statement (EIS) Guidelines, which provide the scope for the Federal EA.

1.4.2 Provincial Environmental Assessment Requirements

Provincial EA processes which could potentially apply to the Century Gold Project include:

- Ontario MNRF Class EA for Resource Stewardship and Facility Development Projects, for the construction of facilities on Crown land outside the mineral leases, and to support issuance of environmental approvals under its regulatory authority including in water work and watercourse diversions, and forestry resources.
- In addition, a Class EA for Minor Transmission Line Facilities may be required to support the environmental approvals for the construction of a short transmission line connection (nominal 230 kilovolt or less of less than 10 km), to the regional hydroelectric grid at the Timmins Transformer Station.

Goldcorp proposes to work closely with the Federal and Provincial governments to meet any required needs under both CEAA, 2012 and the Ontario *Environmental Assessment Act*. Goldcorp will coordinate consultation activities associated with any EA requirements as engineering progresses, in order to minimize the effort required by stakeholders and Indigenous communities to be effectively engaged.

1.4.3 Other Regulatory (Environmental) Requirements

Development of the Century Gold Project is also anticipated to require a number of new environmental approvals or potentially, amendments to existing Dome Mine approvals as summarized in Tables 1-1 and 1-2, subject to ongoing government consultation, project engineering and environmental studies.

Municipal requirements will also need to be met as the Century Gold Project is located within the City of Timmins; however, there are no environmental approvals per se required from the Municipality. The Century Gold Project is also located within an area under the jurisdiction of the MRCA, who may require approvals under the *Conservation Authorities Act*.

1.5 Regional Study

The Century Gold Project is not located in an area that has been subjected to a regional environmental study.

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1.6 Project Description Organization and Content

This document has been prepared in order to provide Federal authorities with information regarding the proposed Century Gold Project, to assist its decision-making in regards to the applicability of the CEEA, 2012. It has purposefully been organized consistent in order and content as suggested in the *Guide to Preparing a Description of a Designated Project under the Canadian Environmental Assessment Act, 2012* (Government of Canada 2015). Engineering design, environmental investigations and consultation and engagement activities are going, which would result in changes to the Century Gold Project as described herein. Appendix A provides a cross-reference of document content to this guideline.

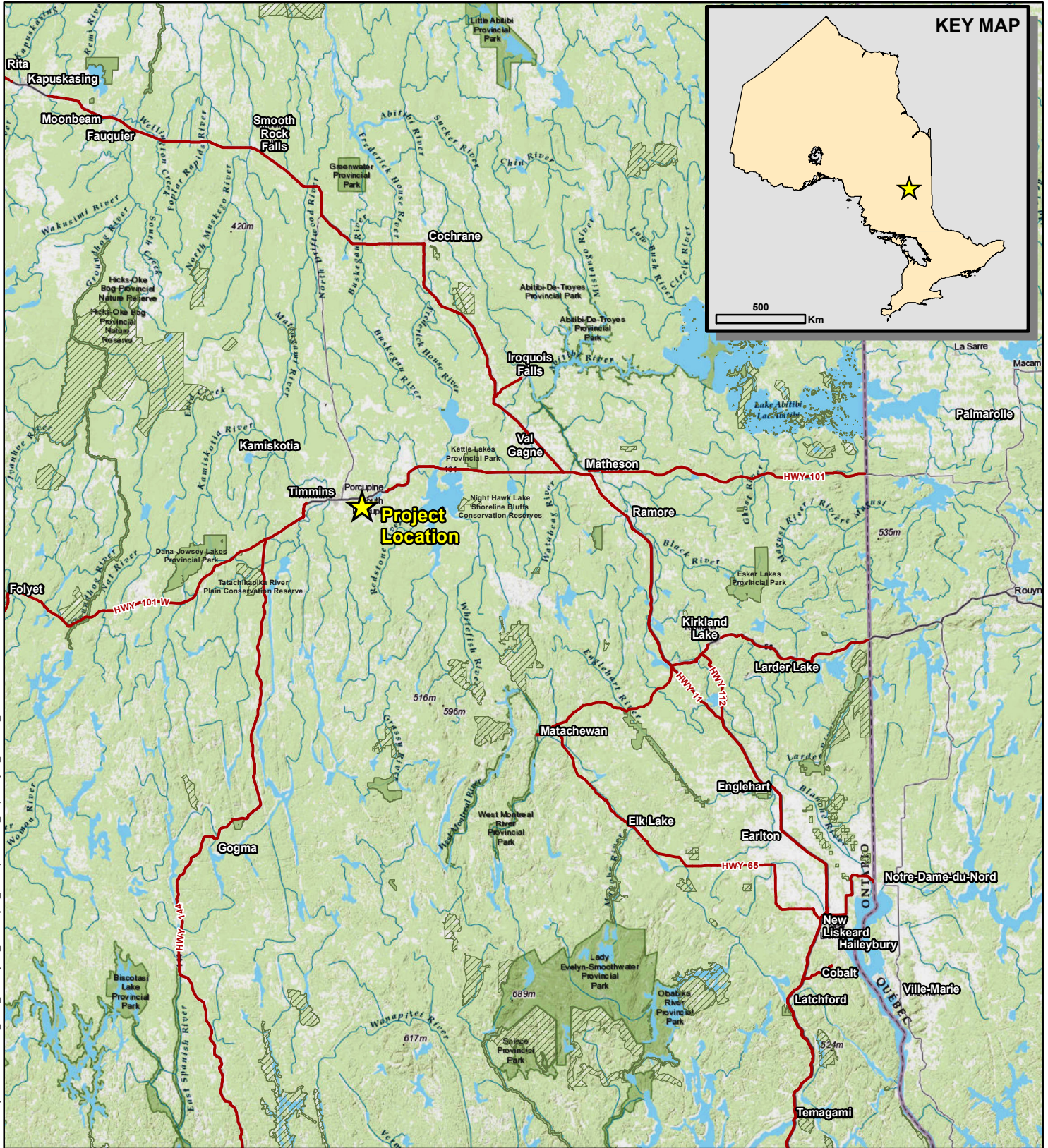
Table 1-1: Federal Environmental Approvals Expected to be Required

Approval / Regulatory Instrument	Agency	Description
Authorization(s) for Harmful Alteration, Disruption or Destruction of Fish Habitat Fisheries Act	Fisheries and Oceans Canada	An authorization under Paragraph 35(2)(b) of the Federal Fisheries Act is anticipated to be required as a result of direct and indirect effects on fish habitat deemed to constitute Serious Harm to Fish
Listing on Schedule 2 Metal and Diamond Mining Effluent Regulations, Fisheries Act	Environment and Climate Change Canada	The covering over (overprinting) of waters frequented by fish by tailings and waste rock piles (or other potentially other deleterious material) is expected to require a listing of waterbodies on Schedule 2 of the Metal and Diamond Mining Effluent Regulations.

Table 1-2: Provincial Environmental Approvals Expected to be Required

Approval / Regulatory Instrument	Description
Closure Plan <i>Mining Act</i> (Ministry of Energy, Northern Development and Mines)	A Closure Plan will be required for mine development, production and eventual decommissioning of the Century Gold Project including dams considered offline structures by Provincial Ministries
Permit to Take Water <i>Ontario Water Resources Act</i> (Ministry of Environment, Conservation and Parks)	Approval for water takings of greater than 50,000 litres per day for mine dewatering, by-pass pumping associated with in-water work and construction related dewatering (such as for foundation excavations)
Permit to Take Water <i>Ontario Water Resources Act</i> (Ministry of Environment, Conservation and Parks)	Approval for a water taking of greater than 50,000 litres per day from Porcupine Lake or other supply (initial processing facility start-up and/or emergency water supply)
Environmental Compliance Approval – Industrial Sewage Works <i>Environmental Protection Act</i> (Ministry of Environment, Conservation and Parks)	Approval for industrial sewage works (tailings management area and associated pond), and potentially for other local settling ponds / similar structures
Environmental Compliance Approval – Air and Noise <i>Environmental Protection Act</i> (Ministry of Environment, Conservation and Parks)	Approval for air and noise emissions from new processing facility and related facilities
Work Permit <i>Lakes and Rivers Improvement Act</i> (Ministry of Natural Resources and Forestry)	Approval for online work such as dams and culverts below the high water mark of local watercourses, and construction of watercourse diversions
Forest Resource Licence <i>Crown Forest Sustainability Act</i> (Ministry of Natural Resources and Forestry)	Approval for cutting / clearing of Crown merchantable timber (if any)
Work Permit <i>Conservation Authorities Act</i> (Ministry of Natural Resources and Forestry)	Approval for work / construction within defined Regulation Limits under O.Reg. 165/06 (river / stream valleys and lake shorelines)

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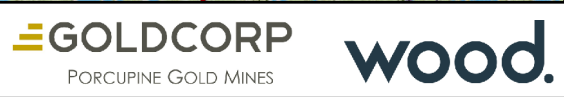
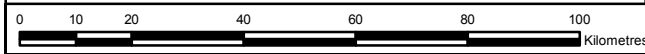


LEGEND

- Project Location
- Regional Highways
- Conservation Reserve Area
- Provincial Park Area

NOTES:
 - Highway information extracted from National Road Network, Geogratis.ca
 - Background topographic map information extracted from ESRI Base Map Services
 - Additional park information and conservation reserve information extracted from Land Information Ontario, MNRF

Datum: NAD83
 Projection: UTM Zone 17N



CENTURY GOLD PROJECT

Project Location

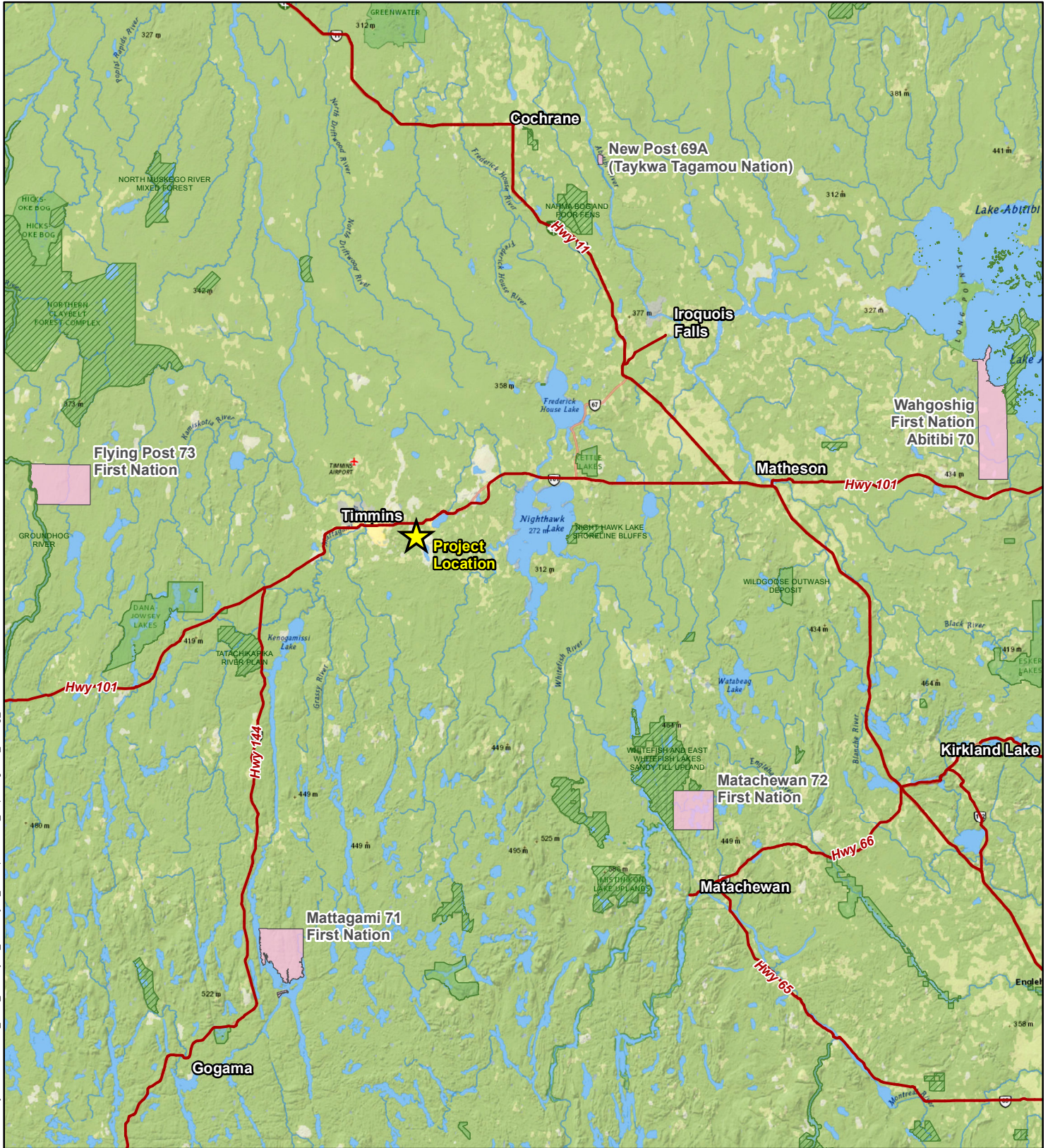
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FIGURE: 1-1

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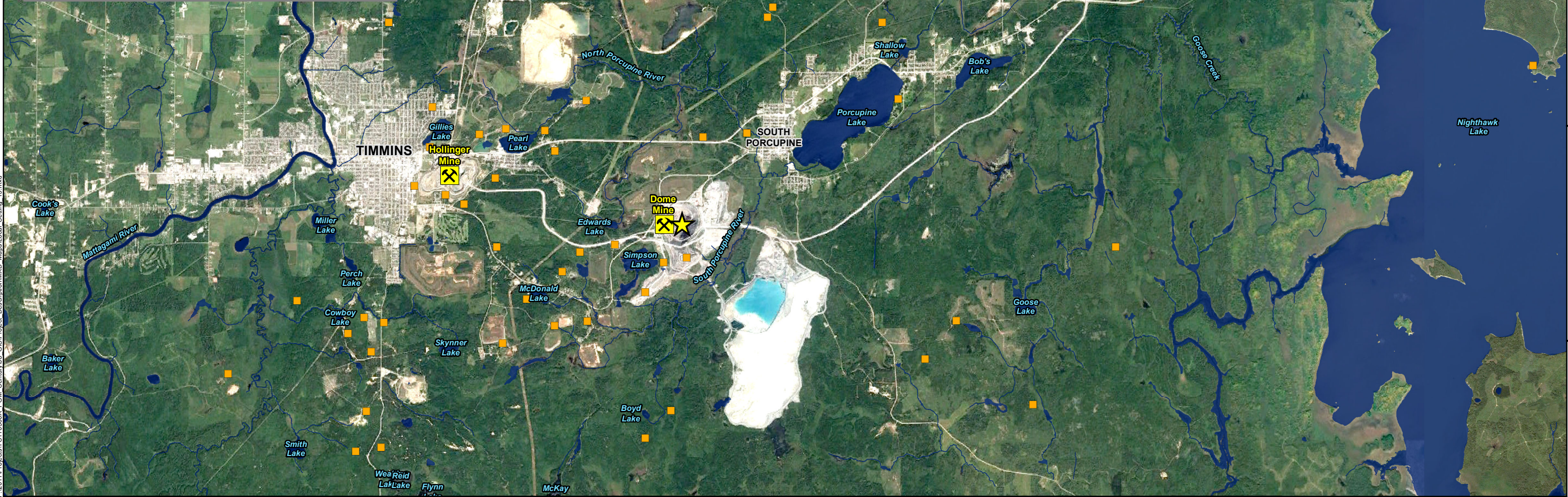
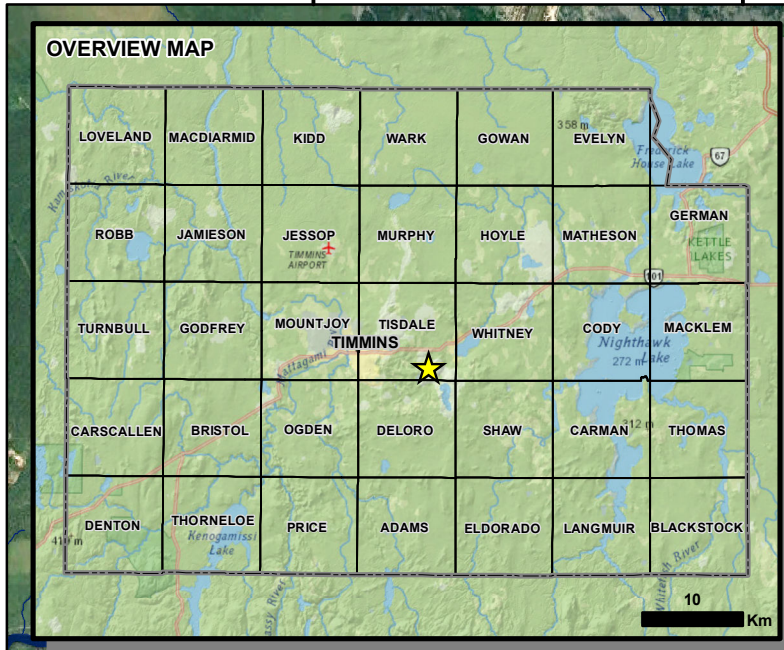
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LEGEND Project Location Regional Highways First Nation Conservation Reserve Area Provincial Park Area	NOTES: - Highway information extracted from National Road Network, Geogratis.ca - Background topographic map information extracted from ESRI Base Map Services - Additional park information and conservation reserve information extracted from Land Information Ontario, MNRF	 PORCUPINE GOLD MINES	
	Datum: NAD83 Projection: UTM Zone 17N	CENTURY GOLD PROJECT Regional Setting	
		PROJECT N ^o : TC170506A	FIGURE: 1-2
		SCALE: 1:860,000	DATE: July 2018

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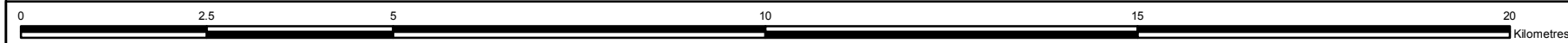
- LEGEND**
- ★ Project Location
 - Goldcorp Active Mines
 - Other Mines
 - Historic Mines
 - Major Road / Highway
 - █ Lakes / Large Rivers

NOTES:
- Background imagery extracted from Google Earth.
- Historic mine information extracted from Abandoned Mines Information System, MNDM.

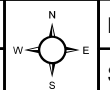


CENTURY GOLD PROJECT

Local Setting



Datum: NAD83
Projection: UTM Zone 17N



PROJECT N^o: TC170506A **FIGURE: 1-3**

SCALE: 1:88,000 DATE: July 2018

2.0 PROJECT INFORMATION

2.1 Summary

2.1.1 Context

The Century Gold Project is located in an area recognized as one of the world's great gold districts. The Porcupine deposit was the basis for the development of the City of Timmins, and has been a key driver of the city's prosperity to date. The Dome Mine had been in continuous operation for 107 years, until underground mining ceased at the end of 2017 (open pit mining ceased in 2008). The Dome Process Plant continues to operate as a regional processing facility.

Goldcorp proposes to redevelop the historic Dome property as the Century Gold Project. The Century Gold Project is:

- A proposed modern, regional processing facility intended to process ore from Timmins-area PGM mining operations, as well as potentially from other non-PGM mines, and replace the existing Dome Processing Plant; and
- A large-scale open pit that will expand the depth and diameter of the Dome Open Pit to the northeast, adding 10 to 16 years of ore production for processing in the Century Processing Facility, and creating additional economic opportunities in Timmins.

Goldcorp believes that protection of the natural environment is fundamental to the success of its mining operations and projects. Accordingly, a number of important considerations in Project design, operational safeguards and contingency plans have been incorporated to mitigate potential environmental impacts, including:

- Minimizing the Project footprint to minimize the loss of habitat and reduction of habitat effectiveness;
- Siting facilities to minimize interaction with populated areas;
- Maximizing water recycling to minimize freshwater requirements; and
- Minimizing haul distances to reduce dust generation and greenhouse gas emissions.

With ongoing Project planning, design and engineering design, additional safeguards and contingency considerations will be incorporated to meet regulatory and other commitments (Section 1.2). Opportunities and innovations being considered are described briefly in Section 2.4.

For clarity, the Century Gold Project is not a component of a larger project that is not listed in the Regulation Designating Physical Activities (SOR/2012-147).

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The Century Gold Project will be developed primarily on lands held by Goldcorp, although there may be some facilities and infrastructure sited on Provincial Crown land or lands held by others (subject to approvals and land transfers being obtained).

2.1.2 Objectives

Goldcorp is dedicated to responsible gold mining practices balanced to promote long-term shareholder value, and the health and well-being of employees and host communities. The objective of the Century Gold Project is to extend the life of the PGM operations in the Timmins area, while operating in a responsible manner with neighbours, local communities and the environment. PGM production in the Timmins area will decline since the Dome Underground Mine ceased operation in 2017, and the Hollinger Mine and Hoyle Pond Mine resources are becoming depleted. The proposed redevelopment of the Dome Open Pit as the Century Gold Project, as a high tonnage / low grade gold mine supported by a new, modern shared processing facility (the Century Processing Facility), is anticipated to:

- Provide a good return on investment;
- Add 10 to 16 years of life to PGM operations and associated economic benefits to the Timmins area;
- Optimize life of existing assets utilizing major infrastructure already in place; and
- Support future mining projects as yet unknown, with a modern, efficient processing facility.

The existing, operating Dome Processing Plant will cease operations when the Century Processing Facility opens.

The Century Gold Project is designed to:

- Minimize the overall Project footprint and impacts as practical;
- Respect the interests of other area land uses and land users; and
- Accommodate effective planning for progressive reclamation and final closure.

In addition to technical and economic considerations, responsible development, operation and closure of the Century Gold Project is driven by the following Goldcorp values:

Communities: Goldcorp's vision is to create sustainable, enduring value for its business and stakeholders: value that lasts beyond the operating life of the mines. Goldcorp values its stakeholder relationships and adopts an approach that is based on mutual benefit, open dialogue, trust, the respect of human rights and the rights of Indigenous Peoples.

Health and Safety: Goldcorp's safety vision sets the standard that guides efforts to ensure the safety and health of people at work, at home and in its communities. Goldcorp holds each employee accountable for the choices they make and the actions they take toward reaching the goal of *"Safe Enough for our Families"*.

Environmental Stewardship: Goldcorp is committed to respecting the environment surrounding its operations for present and future generations. At every stage of the mining life cycle, Goldcorp's teamwork to avoid, reduce or mitigate negative environmental impacts.

2.1.3 Overall Approach

A precautionary approach is being used in the Project design and planning, and going forward including:

- Conducting research to establish baseline data, and where data is not yet available, incorporating appropriate surrogate data;
- Where there is uncertainty, implementing conservative approaches together with a dynamic process of adaptive management;
- Promoting responsibility and accountability to protect the environment and make environmental performance an essential part of the management / contractor review process; and
- Engagement with communities and Indigenous communities so that accessible local and traditional knowledge is incorporated into the Project design and planning.

Ongoing engagement and consultation, adaptive management and the application of the precautionary approach in decision-making is aimed at protecting the health and safety of the local population, as well as minimizing any impact of the Project on the environment and local ecosystems.

2.1.4 Project Summary

The Century Gold Project is a proposed redevelopment of a historic, existing mine site (the Dome Mine; Figure 2-1). Goldcorp is planning to construct a modern processing facility to replace the existing, operating Dome Processing Plant. The Century Processing Facility will continue the shared processing approach of the Dome Processing Plant, whereby ore from multiple sources is processed in a single, centralized facility. This approach significantly reduces potential environmental effects including overall mining footprint in the region by having only one processing facility for multiple mine sites, and also results in a considerable reduction in energy usage and greenhouse gas emissions. Once the Century Processing Facility is in operation, the Dome Processing Plant will be demolished in accordance with the existing Dome Closure Plan (Golder 2018a, or as updated), to make way for the Century Open Pit.

By developing a new higher tonnage, modern processing facility, Goldcorp also has the opportunity to redevelop the open pit gold mine at the Dome site. Based on current geological information available, mining of ore from the Century Open Pit will occur over a period of approximately 10 to 16 years, at a maximum rate of up to 70,000 tpd.

2.2 Designated Activities

The following designated activities per the Federal *Regulation Designating Physical Activities* apply to the Century Gold Project:

16. *The construction, operation, decommissioning and abandonment of a new*
(b) metal mill with an ore input capacity of 4,000 t/day or more

The operations area of the Dome Mine site as defined by the filed Provincial Closure Plan is approximately 1,125 ha. The Century Gold Project operations area is anticipated to be approximately 2,160 ha. Accordingly Section 17 of this Federal Regulation may also apply to the Century Gold Project if the project is viewed as an expansion (see also Section 1.4.1):

17. *The expansion of an existing*
(c) rare earth element mine or gold mine, other than a placer mine, that would result in an
increase in the area of mine operations of 50% or more and a total ore production capacity
of 600 t/day or more

2.3 Components and Activities

2.3.1 Physical Works

Proposed Facilities and Infrastructure

New surface facilities and structures associated with the proposed Century Gold Project, as currently understood, include (Figure 2-3):

- Open pit;
- Waste rock storage area(s);
- Primary crusher (a mobile crusher may be used initially);
- Ore stockpiles;
- Mineral processing facility;
- Administration and ancillary buildings;
- Maintenance shop;
- Fuel storage and dispensing;
- TMA West Cell;
- Reclaim Water Pond;
- Effluent treatment plant and discharge pipeline;
- Freshwater diversion(s);
- Petroleum product storage facilities and laydown areas;
- Water supply and storage ponds;
- Seepage and contact water collection network including ponds and ditching;
- Transmission line, substation and onsite power distribution;

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- Compressed natural gas plant (potential; anticipated to be used during peak power demand, for load shedding and during emergency situations);
- Limited other ancillary buildings, facilities and yards;
- Limited related services (communications) and pipelines (fresh water and sewerage); and
- Environmental offsetting and compensation works.

There may also be an explosive facility and/or explosives magazine(s) associated with the Century Gold Project; however, these facilities will be under the full care and control of an independent supplier and accordingly, are not considered part of the Century Gold Project.

The Century Gold Project has been designed to utilize brownfield industrial lands where siting locations are otherwise equivalent. Detailed site plan(s) including for the processing facility area are not as yet available. A schematic of the proposed Century Gold Project based on the engineering trade-off studies and alternatives assessments completed to date is provided in Figure 2-3. The site schematic will be refined further as a result of ongoing engineering studies, engagement activities and land agreements. The current schematic suggests areas of proposed development, rather than actual design features. Further information regarding the Century Gold Project design is provided below based on engineering information currently available.

Processing Facility

Goldcorp is planning to construct a new, modern processing facility to process ore from multiple gold mines, reducing overall environmental effects and requiring reduced energy usage. The Century Processing Facility will operate year-round on a continuous (24-hour) basis. The facility will operate at a capacity of up to a maximum of 70,000 tpd. The processing rate will be confirmed through ongoing engineering and design, and the final rate could be lower. The processing facility will produce doré bars for sale to provide a return on investment for Goldcorp investors.

The Century Processing Facility will process ores from a number of existing / operating mines in the Timmins area, currently anticipated to include ore from the following mines:

- Hollinger Mine;
- Hoyle Pond Mine;
- Pamour Mine;
- Borden Gold Project; and
- Potentially other mines / custom milling projects to be determined in the future.

Ore from mines not under the control of Goldcorp could also potentially be processed at the Century Processing Facility, subject to the environmental approvals and commercial agreements. Processing of historic tailings and waste rock from PGM properties may also occur. Accordingly, the Century Processing Facility may continue to operate after the Century Open Pit is depleted. To ensure continuous operations and ability to blend various ores, ore stockpiles will be required on the Century Gold Project site.

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The Century Processing Facility is proposed to use conventional gold processing methods commonly used in northern Ontario operations (likely a carbon-in-leach or carbon-in-pulp recovery process). Pending ongoing engineering design, the plant is anticipated to use a conventional whole ore cyanidation process for gold recovery. Cyanide is the only technically and cost-effective means of gold recovery from gold-bearing ore, and is standard practice throughout the industry. Ore processing will involve:

- Crushing of ore in a Primary Crusher;
- Additional sizing, such as a pebble crusher and mill at the Processing Facility;
- In-plant cyanide treatment to release gold;
- Cyanide recovery circuit;
- Gold recovery;
- Doré gold bar production using an induction furnace; and
- Tailings deposition.

The majority of the processing will be within the main Processing Facility building. Large tanks (such as the tailing thickeners, leach tanks, lime silo and others) will also be required. Special equipment and handling procedures will ensure that cyanide and other reagents, are stored and used safely, in accordance with standards for Ontario gold mines.

The tailings produced as a byproduct of the ore processing will contain cyanide and dissolved metals residuals. Tailings will be appropriately managed to ensure safeguarding of the environment.

Tailings Management Area

The existing, approved Dome TMA No. 6 is anticipated to be used for the start of Century Processing Facility operations to store tailings produced as a by-product of processing of ore in that facility, until a new storage area is required. A waste rock buttress may be placed around the existing east / southern dams of TMA No. 6 to increase storage capacity and for long term dam stability. The principal criteria for selection of a new TMA are the following:

- Select an area within reasonably close proximity to the mine site to minimize the overall Project environmental footprint and to achieve economic efficiencies of operation, in full consideration of land tenure and ownership as well as existing / potential land uses;
- Ability to develop the facility in stages to maximize re-use of available waste rock in construction;
- Position the TMA in a manner such that drainage can be collected and managed in an integrated manner ideally in association with existing TMA No. 6, and in accordance with Metal and Diamond Mining Effluent Regulations and Provincial environmental approval requirements;

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- If reasonable, construct the new TMA in a way that improves the long-term stability and reduces the hazard potential of TMA No. 6;
- Consider the geochemistry aspects of potential future tailings; and
- Minimize potential adverse effects to aquatic and terrestrial habitats, recognizing that the area around the site has a large number of small ponds and minor watercourses.

A preferred area for tailings storage is TMA West Cell which is immediate west and abuts a portion of TMA No. 6 (Figure 2-3). The cell will receive tailings from the Century Processing Facility either at the same time as TMA No. 6, or more likely, after capacity within TMA No. 6 is depleted. This new TMA cell would cover an area of approximately 600 ha and could provide capacity for the storage of the approximately 200 to 300 Mt of tailings projected over the Century Gold Project mine life. This volume includes both new tailings produced by the Century Processing Facility, as well as potentially historic tailings relocated to accommodate the Century Gold Project developments (primarily the Century Open Pit). In the preliminary design, the TMA West Cell will be bounded by the: proposed Central Waste Rock Storage Area to the north; the Reclaim Water Pond and TMA No. 6 to the east; and dedicated impoundment dams along the other perimeters. The final design of the tailings dams will consider water management and long-term dam stability including erosion protection, and will meet the Provincial and Canadian Dam Safety Association requirements as applicable.

This proposed TMA West Cell arrangement is preliminary and is subject to further evaluation through the Metal and Diamond Mining Effluent Regulations Alternatives Assessment process that will be carried out in parallel to the EA process. It is also subject to ongoing engineering design and trade-off studies, and regulatory discussions / consultation including regarding offsetting and compensation for habitat loss.

Open Pit Mine

By developing a new higher tonnage, modern processing facility, the economics of the project support the redevelopment of the Dome Mine open pit on the site. Based on current geological information available, the Century Open Pit will have an area of approximately 226 hectares (ha), and be about 640 m deep. Open pit mining will occur at a maximum rate of up to 70,000 tpd of ore production. Approximately 230 million tonnes (Mt) of ore will be extraction from the pit. As currently proposed, open pit mining in the Century Open Pit will occur over a period of approximately 10 to 16 years. Ore will be processed in the Century Processing Facility.

The Century Open Pit wall slopes will be designed for safety based on applicable industry standards. The benches in rock will be developed by blasting using variable proportions of emulsion or emulsion-blend explosives, and ammonium - nitrate / fuel oil. Sump or sumps may be created at the base of the open pit for water management; however, it is expected that excess water in the Century Open Pit will flow into the existing Dome underground mine workings, where it will be managed by: re-using in the Processing Facility if practical, pumping to the TMA / Reclaim

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Water Pond for additional treatment as needed, or potentially treated in a standalone pond and discharged directly to the environment once effluent discharge criteria are met.

Overburden and Waste Rock Storage Areas

Limited overburden will require removal as a result of the Century Gold Project development, as it is being developed on a brownfield site. Overburden that can reasonably be removed will be stockpiled separately to allow for future use in site reclamation or other activities as appropriate, used directly for progressive reclamation of the Century Gold Project during operations, or used as fill in the site development.

Mine development is expected to generate approximately 800 to 1,100 Mt of waste rock (rock that must be removed to access the ore, but which does not have sufficient economic value itself). Studies to date indicate that waste rock from the Century Gold Project is non-potentially acid generating and will not leach metals in high concentrations (geochemical studies and investigations are ongoing). Accordingly, waste rock is expected to be utilized in site construction as reasonable to minimize the volume of dedicated waste rock storage and the requirement to bring fill from off site. Waste rock may be used for levelling of building and yard areas. It is also expected to be used to construct a buttress around the existing dams of TMA No. 6 in whole or in part, to raise the dams to increase the tailings storage capacity and improve the long-term stability of those existing structures. Century Gold Project waste rock is also expected to be a primary material for construction of onsite dams, such as for the Reclaim Pond and TMA.

Remaining waste rock will be stored for permanent disposal. The principal criteria for selection of storage location(s) are the following:

- Areas within reasonably close proximity to the mine to minimize the overall Project environmental footprint, reduce greenhouse emissions and to achieve economic efficiencies of operation;
- Consider both near- and long-term stability aspects, and amenability to reclamation / final closure;
- Provide for a reduced number of larger storage areas that can be managed more efficiently, rather than having several smaller, scattered storage areas;
- Position storage areas in a manner such that drainage from the storage areas can be suitably collected and managed in accordance with Metal and Diamond Mining Effluent Regulations and Provincial environmental approval requirements;
- Consider land tenure and existing / potential land uses, including proximity to existing residences as potential noise receptors; and
- Minimize potential adverse effects to aquatic and terrestrial habitats as practical.

Based on trade-off studies and ongoing engineering to date, and subject to ongoing engineering trade-off studies, regulatory discussions and consultation / engagement; the primary area for waste rock storage will be a new waste rock storage area, named the Central Waste Rock Storage Area. Based on current information regarding existing ground conditions and the need for relatively flat slopes, the storage area will cover approximately 460 ha.

This existing natural valley has many advantages including:

- Located in close proximity to the open pit, thereby substantially reducing greenhouse gas emissions and decreasing haulage costs to a level that the Project may be able to support;
- Ability to contain and control, runoff and seepage as required by the Metal and Diamond Mining Effluent Regulations;
- Suitable land ownership / tenure and distance from neighbouring residences (noise control and aesthetics); and
- Ability to improve the long-term stability of the north dam of TMA No. 6.

Goldcorp recognizes that the South Porcupine River and a portion of the Porcupine River Wetland Complex is situated in the valley that is proposed to be overprinted by the Central Waste Rock Storage Area (Figures 2-1 to 2-3). The South Porcupine River and its headwater areas would be diverted around the north side of the Century Gold Project to re-connect with Porcupine River in the area downstream of the Project. Should the Central Waste Rock Storage Area preferred alternative be confirmed, offsetting and compensation will be required for the habitat loss which may be mitigated by the design of a diversion channel.

An area located south of the Pamour Haul Road has also been designated as an alternate location for waste rock storage, if needed (Figure 2-3; Alternate Stockpile).

Stockpiles (Ore and Low Grade Ore)

Small new stockpiles of ore (up to 5 Mt) will need to be stored to facilitate continuous operations. The stockpiles will likely be placed near the Primary Crusher. Runoff from the stockpiles will be captured and treated as needed. Should a decision be made to temporarily store a smaller quantity of reactive or metal leaching ore at the Century Gold Project, appropriate measures will be taken to avoid potential impacts to surface water and groundwater.

Other ores from offsite mines are not proposed to be stored at the Century Gold Project in large quantities. Should this approach change during engineering or potentially during the operations phase, appropriate mitigation measures will be taken to avoid and/or mitigate potential associated environmental effects.

There is anticipated to be a need for low grade ore stockpile(s) to manage the lower grade ore until it can be processed, or determined to be waste rock.

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An additional stockpile may be required should ongoing testwork determine that rock that requires rehandling from existing Dome waste rock storage areas is viable for processing in the Century Processing Facility.

Water Management and Diversions

Based on the preliminary design, Goldcorp proposes to develop a new Reclaim Water Pond bounded by the Central Waste Rock Storage Area, the TMA West Cell and TMA No. 6. Drainage from TMA No. 6 and the TMA West Cell will be directed to the Reclaim Water Pond, along with mine water and other site contact waters. The Reclaim Water Pond will eventually replace and reduce the existing pond on top of TMA No. 6. The new pond will be larger (approximately 120 ha) and will allow for additional retention time for natural degradation of ammonia from mine water and residual cyanide from the tailings effluent if applicable. It will also provide storage capacity to ensure there is sufficient water available to recycle to the Century Processing Facility.

A new effluent treatment plant will be built as part of the Century Gold Project when needed to ensure that effluent quality meets all regulatory requirements. Effluent from the Century Gold Project is anticipated to be discharged to the remnant South Porcupine River (the receiver for effluent from the Dome operations); or potentially to the Porcupine River, subject to on-going engineering.

Other new ponds or ditches will be developed as needed to meet site needs and in accordance with regulatory requirements for monitoring of contact waters. If practical, all site contact waters including runoff and treated domestic sewage (unless a septic tile field or sewage treatment plant is utilized), will be directed to the TMA Complex, such that a single effluent discharge from the Century Gold Project site is possible.

Development of the Century Gold Project as currently proposed, requires diversion of a portion of the South Porcupine River and its headwater area around the Century Open Pit and Central Waste Rock Storage Area. The preliminary routing of the waters around the site has considered the following aspects to date:

- Existing topography to ensure that natural, gravity flow would continue to occur;
- Avoid re-directing into other watersheds (such as to the south);
- Minimize direct effects on downstream watercourses / water bodies including erosion;
- Minimize land use conflicts with existing land uses and the Century Gold Project; and
- Consideration of high flow storm events to help ensure protection of downstream locations from flooding, including Highway 101 and the South Porcupine neighbourhood.

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The preferred option subject to regulatory guidance, engineering design and consultation / engagement activities are new diversions:

- An upper diversion (South Diversion) of approximately 2.5 km length, that would direct natural runoff from the headwater areas not overprinted by the TMA West Cell, into Edwards Lake (which would continue to overflow naturally into Porcupine River through an unnamed tributary, locally named Edwards Creek); and
- A bypass channel (North Diversion) of about 3 to 4 km length located between the existing railway right of way and Gold Mine Road (north of the Century Open Pit) that would divert any excess flow from the headwater area further downstream.

The water diversions will naturalize over the life of the mine and will become the permanent creek channel, even after closure, recognizing that the bypass channel may have only intermittent flow.

Other Buildings and Yard Areas

The primary chemicals to be used and stored at the Century Gold Project are: fuels (diesel and propane gas), and process-related chemicals and reagents. All fuels, chemicals, and reagents will be transported, stored, and handled in accordance with applicable regulations and good management practice. Diesel fuel storage of approximately 600,000 litres is expected to be required based on preliminary engineering information. A fuel dispensing area will be developed to support onsite vehicles and mobile equipment, potentially supported by a fuel tanker truck. The location for this facility is proposed to be within the Processing Facility footprint, on brownfield lands away from surface waters.

Domestic sewage will be either treated on the site in a new facility, such as by means of a septic tank and tile field bed, a package sewage treatment plant, or other means in accordance with regulatory requirements. All non-hazardous and hazardous wastes produced at the Century Gold Project will be transported to an approved waste management storage facilities in accordance with applicable regulations.

Goldcorp does not propose to construct dedicated, permanent accommodations for the Century Gold Project either on site or off site. It is anticipated that contractors and personnel will utilize existing accommodations in the City of Timmins or other locations.

Infrastructure

Onsite access will be provided by linkages to both an existing internal road network and external haul road network with extensions as appropriate. There are existing dedicated haul roads between the Hollinger Mine and Dome Mine site, and between the Pamour Mine and Hoyle Pond Mine and the Dome Mine site which are anticipated to continue to be used. Particular attention will continue to be given to the separation of large haul truck traffic and other site vehicular traffic during ongoing design. A number of new minor watercourse crossings (or upgrading of existing culverts) may be required to allow access over local creeks.

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The Dome Mine is accessed by Gold Mine Road, an existing, paved, two-lane roadway servicing local traffic. Goldcorp does not propose to relocate or realign this road.

Power to support site preparation and initial construction will be derived from the existing local electrical grid supported by onsite diesel power as needed. Power for the construction and operation phases of the Century Gold Project is expected to be supplied from a new 230 kilovolt (kV) transmission line connected to the existing Hydro One Networks Inc. infrastructure at the Timmins Transformer Station. Distribution lines and other power infrastructure will be located throughout the Project to provide electrical power to various site components as needed. Goldcorp is also considering the alternative of cogeneration and other options to provide power to the Project, including a compressed natural gas plant for use during peak demand for load shedding, and potentially during emergency / power outage situations.

Expansion / Re-purposing of Existing Facilities and Infrastructure

As indicated in Section 1.1, the Century Gold Project is the proposed redevelopment of the historic Dome site. The Dome Processing Plant will continue to operate, processing ore from other Goldcorp operations and potentially from other custom milling sources, until such time as a decision is made to cease processing (either for economic reasons, or it is replaced by the Century Processing Facility). Accordingly, replacement of Dome facilities and infrastructure to maintain current operation, and/or reclamation of facilities and infrastructure no longer required at the Dome site, is expected to continue in accordance with the Dome Mine Closure Plan and other approvals, irrespective of the Century Gold Project and thus is not included within the Project Description scope. Emissions and effluent from this ongoing operation / use of existing infrastructure for the ongoing Dome Process Plant operations, will not change as a result of the potential development of the Century Gold Project.

For clarity, the components of the Dome Mine that will become part of Century Gold Project if developed, and will not be reclaimed in accordance with the Dome Closure Plan are:

- Dome Open Pit (redeveloped to establish the Century Open Pit);
- TMA No. 6 (facility as currently approved will continue to operate and receive tailings from the Dome Processing Plant; after the Century Gold Project is approved, it will be expanded to receive Century Processing Facility tailings);
- East Waste Rock Storage Area and Preston Waste Rock Storage Area (will be partially removed to make way for Century Gold Project facilities, with the historic waste rock moved to the Central Waste Rock Storage Area or potentially processed if it has economic value); and
- No. 3 TMA (T3; historic tailings from this inactive facility will be partially removed by the Century Open pit, with the tailings relocated to TMA No. 6 or the TMA West Cell directly, or as a result of reprocessing in the Century Processing Facility).

2.3.2 Anticipated Production Capacity

The anticipated size or production capacity of the designated project, with reference specifically to the thresholds set out in the *Regulations Designating Physical Activities*, is as follows:

- Milling and mining of metal ore is planned at a maximum rate of up to 70,000 tpd, and on a continuous (24-hour day) basis. The rate will be confirmed through ongoing engineering and design activities.

Table 2-1 provides a summary of the size and capacity aspects of the Century Gold Project as currently known, subject to ongoing engineering design.

2.3.3 Anticipated Percent Increase in Size and Capacity

The overall surface area of the Century Gold Project is subject to ongoing engineering trade-off studies and completion of appropriate alternatives assessments. Figure 2-2 shows the approximate Dome Mine operations area, with an overlay of the approximate outline of the Century Gold Project based on the best information currently available. The mine operations area for the Dome Mine is approximately 1,125 ha according to the filed Provincial Closure Plan. Based on the preliminary design information, the operations area for the Century Gold Project is approximately 2,160 ha.

2.3.4 Use of Offsite Existing Infrastructure / Facilities

The Century Processing Facility will process ore from a number of different mines, in the same manner that the Dome Processing Plant does, although at a higher production rate. Ore will be transported to the Century Processing Facility, rather than to the existing Dome Processing Plant. The mining and transport of these ores is not part of the Century Gold Project.

2.3.5 Description of Related Activities

Primary activities related to the Century Gold Project not otherwise described earlier in Section 2.3.1 include:

- Completion of engineering studies and associated field investigations;
- Completion of legal / business / land agreements, if any;
- Corporate (internal) decision to proceed to mining based on results of engineering studies;
- Hiring of individuals and contractors;
- Receipt of environmental approvals to construct and operate the Project; and
- Modification of existing environmental management plans or development of new plans.

2.3.6 Opportunities and Innovation

Goldcorp is committed to the efficient use of natural resources. Some of the environmental issues facing the mining industry include: water and energy conservation, climate change and the management of mining waste. Goldcorp will consider alternative technologies and approaches as Project design and planning are advanced, and over the mine life as technologies change. Goldcorp are currently conducting a number of trade-offs investigations in its engineering design for the Century Gold Project currently including:

- Various production rates for the Processing Facility;
- Alternate ore sources such as reprocessing of historic tailings (a portion of the Dome TMA No. 3) and waste rock (portions of the East Waste Rock Storage Area and Preston Waste Rock Storage Area);
- Alternative rock transport means including: conventional trucking, conveying, trolley assist trucking and autonomous trucking;
- In pit and out of pit crushing;
- Options for mine waste storage locations;
- Tailings disposal methods and disposal locations; and
- Power supply options, including the potential for development of a natural gas fuelled power plant to support the Project.

Determining the preferred option for the Century Gold Project from these trade-off studies will be based on economic, technical, environmental and social considerations. Goldcorp is also including optimization of the Century Gold Project within the family of PGM properties, to address historic / legacy mining issues in the Timmins area, as well as to meet proposed end land use objectives for Goldcorp's current operations.

2.4 Emissions, Discharges and Wastes

2.4.1 Atmospheric Emissions

Air Emissions

Air emissions will derive from point source and fugitive sources, with fugitive sources likely to contribute the majority of the air emissions. The primary point source air emissions are expected to be suspended particulate (dust) from conveyors and crusher(s). Measures will be taken to minimize dust creation at the Processing and Crushing Facilities and to utilize dust collection devices where practical.

Fugitive dust will be released from: drilling and blasting operations (within the open pit mine); loading and offloading of overburden, waste rock and ore; vehicle and heavy equipment travel on gravel roads; and from wind entrainment from stockpiles, the TMA and other exposed earth materials. Water and other Provincially approved dust suppressants will be used as required to control dust emissions.

Power is proposed to be drawn from the Provincial electrical grid to meet the site power demands during operations and potentially during the construction phase, thereby reducing potential greenhouse gas emissions at the site. Construction phase diesel power generation (if required), and vehicle and heavy equipment use during all Project phases, will release particulates, sulphur dioxide, and nitrogen oxides from the combustion of fuel. Should a compressed natural gas plant be developed, appropriate emission control measures will be installed to minimize environmental effects. Heavy equipment, vehicles and diesel generators will be required to be maintained in good working order and equipped with factory-installed emission control devices to minimize emissions. Nitrogen gases, carbon dioxide and other trace gases will also be released from explosives usage.

Air quality modelling will be carried out to ensure that effects on air quality are fully considered during engineering design.

Greenhouse Gas Emissions

Greenhouse gas emissions will derive principally from diesel fuel combustion in heavy equipment operation, and with diesel-fired power generation during the mine construction phase (if required). During the construction and operations phases transmission line grid power will be used to meet the Century Gold Project stationary equipment power demands, thereby reducing potential greenhouse gas emissions at site. Greenhouse gas emissions associated with other fuel sources such as gasoline and propane are expected to be minor.

Energy efficiency and greenhouse gas minimization will be an ongoing consideration in the design of the Century Gold Project. A preliminary assessment potential greenhouse gas emissions from the Century Gold Project was completed of using industry-standard methodology. Based on this preliminary estimate, the maximum greenhouse gas emission from the Century Gold Project will be approximately 180,000 tonnes of carbon dioxide equivalents per year, representing an approximately 0.1% increase to the 2016 annual emissions for Ontario (Golder 2018b). This estimate is preliminary and will be refined with ongoing project planning and design.

Sound Emissions

The principal anthropogenic sound sources at the Century Gold Project are expected to derive from open air, heavy equipment operation, such as that associated with the mining and handling of overburden, ore and waste rock. Processing and other facilities will be design in consideration of noise production. During the mine construction phase, there will be additional heavy equipment operation that will contribute to overall sound emissions.

Sound source modelling will be carried out to ensure that noise and noise related effects are fully considered during engineering design.

Vibration

The main source of vibration (ground-borne) from the Century Gold Project will be from blasting (explosives usage) required during mining. Blasting can also generate an overpressure shock wave which can travel through air and water. Modelling will be completed to enable assessment of potential mine-related impacts and support development of appropriate mitigation measures.

2.4.2 Liquid Discharges

Mine Water

Mine water will derive from open pit. The Century Open Pit will intercept groundwater and runoff from adjacent areas, as well as collecting direct precipitation. Detailed groundwater modelling will be conducted to define groundwater inflow rates and to determine mine water removal rates for all phases of mine operations as the engineering designs progress.

The open pit mine water (including runoff / precipitation reporting to the pit) will drain into the existing Dome underground workings. From there it is expected to be re-used (such as in the Century Processing Facility) or pumped to the TMA complex (TMA No. 6, TMA West Cell and/or the Reclaim Water Pond). Alternatively, and subject to further study, there is the potential to develop a dedicated mine water treatment pond if needed to achieve more effective water quality management.

Mine water will contain: suspended solids from general mining and earthmoving activities; ammonia residuals from ammonia-based explosives; and residual hydrocarbons from heavy equipment operation. Leaching of the exposed bedrock within the open pit may also potentially contribute minor quantities of metals to the mine water. Preliminary suspended solids removal will occur within the mine. Ammonia residuals are proposed to be managed at source through best management practices for explosives handling and through extended effluent aging in pond(s) prior to any discharge to the environment.

Stockpile Runoff

Runoff from the waste rock and ore storage areas will contain suspended solids, and potentially metals and residual ammonia. Runoff from the waste rock and ore storage areas will be collected and handled in accordance with regulatory requirements, and will likely be directed to the TMA Complex to allow for settling of solids.

Site Runoff

General site runoff resulting from precipitation that falls on the Century Gold Project site within the mine operations area will also be captured and monitored, and if needed diverted for treatment, likely in the TMA Complex. Non-contact runoff from outside the mine operational area, will continue to flow directly to the environment.

Domestic Sewage

Domestic sewage and grey water (from showers and sinks) during the construction and operations phase will be treated if needed, either by means of a package sewage treatment plant (e.g., sequencing bioreactor, rotating biological contactor, membrane bioreactor, or equivalent), in a septic tank / tile field, or by other means to be determined.

TMA Effluent

Excess water stored in the TMA Complex (TMA No. 6, TMA West Cell and Reclaim Pond) will be treated if needed, and will be discharged to the environment once the effluent quality meets regulatory requirements. A new Effluent Treatment Plant will be constructed for the Century Gold Project if necessary to ensure that effluent water quality requirements can be met. Based on current engineering information, either the South Porcupine River or the Porcupine River downstream of the Century Gold Project are anticipated to receive this excess effluent (Figure 2-3).

2.4.3 Solid Wastes

Solid domestic wastes anticipated to be produced at the Century Gold Project include: wood, paper, scrap metal, glass, plastic, food scraps and general refuse. These materials will be transported to a licensed / approved landfill (such as the existing Dome facility) for management in accordance with the approval for the individual facility.

Special management wastes produced at the site are expected to include: waste petroleum products and packaging, waste glycol, waste explosives and potentially petroleum contaminated soil. Special management wastes will be temporarily stored in sealed containers in lined, bermed areas (or other means of secondary containment as appropriate). Used glycol, lubricants and other similar materials will be stored in tanks with secondary containment. All hazardous wastes will be transported to appropriate waste management facilities off site in accordance with regulatory requirements.

It is recognized that minor spills associated with heavy equipment usage (dominantly petroleum hydrocarbons and glycol) may occur occasionally. Contaminated materials, associated with any such spills, will be excavated and handled in accordance with best management practices and regulatory requirements.

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Explosive wastes will be destroyed according to an approved methodology by the explosives contractor or otherwise-approved personnel.

Note that tailings are a byproduct of processing ore and will be produced from the Processing Plant per Section 2.3.1. Tailings will be pre-treated in the Processing Plant as required for cyanide recovery / destruction, and permanently stored in TMA No. 6 or the TMA West Cell.

2.5 Project Phases and Scheduling

2.5.1 Development Timeframes and Main Activities

A preliminary schedule for the development, operation and closure of the Century Gold Project is attached as Figure 2-4.

The schedule aims for gold ore production starting in 2025 following construction. The uncertainty in timing of environmental process and approvals is understood; and it is recognized that approvals may constrain the timing of some of the activities that have been scheduled. The actual timeline for project development will therefore depend in part on the timing of the assumed Federal EA process and subsequent environmental approvals.

The approximate duration of the key project phases as currently envisioned are as follows:

- Construction: 3 years (Years 1 to 3);
- Operation: 10 to 16 years (Years 4, to Years 13 to 19);
- Active reclamation: 2 to 3 years (Years 20 to 22); and
- Post-closure, including monitoring as required (after Year 22).

Follow-up environmental monitoring is expected to occur through to the active reclamation phase or longer, as dictated by environmental requirements.

It should be noted that the operations phase timing listed above is for the Century Open Pit. Goldcorp proposes to continue to operate the Century Processing Facility after mining in the Century Open Pit ceases, if sufficient ore is available from other PGM and/or non-PGM mines.

As indicated in Section 2.3.1, operation of the Dome Processing Plant and reclamation of facilities associated with the Dome Mine is expected to continue in accordance with existing environmental approvals for the Dome Mine, while construction of the Century Gold Project is underway. The proposed sequencing of activities is shown in Figure 2-5.

2.5.2 Main Activities by Project Phase

The main activities and sequencing for the Century Gold Project are described in the following sections based on current information and subject to change as more information including engineering design, is available.

Construction Phase

The necessary engineering studies and environmental approvals needed to support approval to proceed to mining are proposed to be conducted in parallel with the Federal EA process, in order that production mining can commence as soon as possible.

The primary construction phase activities associated with the Century Gold Project (to be conducted after EA completion and receipt of applicable environmental approvals are received as needed), are expected to include:

- Procurement of material and equipment;
- Implementation of environmental protection and monitoring plan(s) continuing through all project phases;
- Movement of construction materials to identified laydown areas at site;
- Stripping of overburden (and topsoil if present), and/or existing man-made fill / historic tailings (TMA No. 3) and waste rock (East Waste Rock and Preston Waste rock);
- Clearing of trees and other site preparation such as grading at project development locations that have not been previously developed (i.e., greenfield areas);
- Establishment of watercourse diversions and site drainage works;
- Excavation for foundations, and construction of the required buildings and facilities for the Century Gold Project as described in Section 2.3.1;
- Preparation of onsite mineral waste and water handling facilities, and preparation of TMA West Cell and the Reclaim Pond dams;
- Construction and energizing of a 230 kV feeder transmission line to the main Timmins (Gold Centre) Transformer Station and onsite distribution lines; and
- Ongoing environmental management, monitoring and reporting, and follow-up environmental studies (continuing through all project phases as applicable).

Construction activities will be sequenced according to personnel and equipment availability and site conditions. Certain activities, such as those involving working in wet or poorly accessible terrain, are best carried out under frozen ground conditions. Sequencing will also consider environmental constraints, such as fish spawning and bird nesting seasons.

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Operations Phase

During the Project operations phase, overburden, ore and waste rock will be extracted from the mine for stockpiling, or transport directly to the primary crusher for sizing (ore only). Sized ore will be conveyed to the Century Processing Facility to recover the gold and produce doré bars for periodic shipment off site. The Processing Facility will also receive ore from offsite mining operations, generally on an as-required basis to limit ore storage at the Century Gold Project site. It could also process tailings and waste rock from historic sources.

As the operations phase continues, the open pit and related waste rock storage area(s) will become progressively larger and deeper / higher. Progressive reclamation is anticipated to occur during operations at waste rock storage area(s) as practical.

Solid and liquid wastes / effluent will be managed on an ongoing basis during mine operations, to ensure regulatory compliance. Tailings will be discharged into the TMA No. 6 or the TMA West Cell. Contact waters will be managed and/or treated as needed including in the Reclaim Pond, prior to discharge by pipeline, potentially to either the South Porcupine or Porcupine River (Figure 2-3), with such discharge meeting all applicable Federal and Provincial effluent quality and quantity requirements.

Environment-related activities that will be carried out during the operations phase are anticipated to include:

- Air quality and noise management;
- Effluent and runoff management;
- Ongoing management of wastes;
- Environmental monitoring and reporting;
- Progressive site reclamation where practical; and
- Follow up environmental studies, if any.

Reclamation / Closure Phase

Mine closure requires an integrated, multidisciplinary approach with an awareness of the need to plan for the social and environmental changes that will occur. Goldcorp understands that closure planning should begin at the earliest phases of mine development and needs to include the active participation from all stakeholders. Implementing plans for a successful mine closure can be challenging; however, mine closure can bring new opportunities to a community. Maximizing the potential for a sustainable, long term, positive impact requires community involvement, good planning and strong leadership. The development, operation and closure of the Century Gold Project is intended to help address past mine legacy issues in the local area.

Closure of the Century Gold Project will be governed by the Ontario *Mining Act* and its associated Regulations and Codes. The *Act* requires that a Closure Plan be filed for any mining project before the project is undertaken, and that financial assurance be provided prior to substantive development to ensure that funds are in place to carry out the closure plan.

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The objective of closure is to reclaim the mine site area to a naturalized and productive condition on completion of mining. The terms naturalized and productive are interpreted to mean a reclaimed site without infrastructure (unless otherwise negotiated), that while different from the existing environment, is capable of supporting plant, wildlife and fish communities.

It is expected that active phase of reclamation of the Century Gold Project will take approximately two to three years after operations cease, although there will be open pit flooding and environmental monitoring, and potentially effluent quality management thereafter.

Open Pit

The Century Open Pit is proposed to be flooded to create a pit lake. Other measures to be taken to reclaim the pit may include:

- Remove all infrastructure and equipment within the open pit and clean up any contamination (petroleum hydrocarbons and / or explosives);
- Shape and revegetate overburden pit slopes to a stable condition;
- Block the entrance to the open pit; a boulder or traditional security fence will be installed around the pit perimeter during or following active mining operations to ensure safety while the pit is flooding (with other measures as appropriate to deter wildlife entrance); and
- Develop a spillway if needed, to allow the pit lake to eventually overflow to the local watershed.

Waste Rock and Overburden Stockpiles

Progressive reclamation of waste rock and overburden storage areas will be undertaken where practical and appropriate during Century Gold Project operations, such that once the maximum height has been reached and/or as each lift is completed, to minimize the amount of final reclamation required at closure. Reclamation of certain areas will include the placement of overburden over rock as appropriate and revegetation.

TMA No. 6, West Cell and Reclaim Water Pond

The principal objectives associated with closure of the TMA involve long-term slope stability, erosion control, drainage, vegetation cover and aesthetics. Acid rock drainage is not anticipated based on the geochemistry of the ores proposed for processing. Development of a self-sustaining vegetation cover is proposed pending further investigations. Overflow spillway(s) will be developed or deepened as needed to ensure efficient drainage of excess runoff.

The Reclaim Water Pond will remain in place as needed for water treatment for the site. The volume of water stored may be reduced over time; however, the pond is anticipated to remain in place and may eventually become naturalized.

Buildings, Machinery, Equipment and Infrastructure

Non-hazardous demolition wastes (such as concrete, steel, wallboard and other inert materials) generated by mine closure will be disposed of according to regulatory requirements, such as in the existing approved facility for the Dome Mine, within the Century Pit, or at another location is to be determined.

Salvageable machinery, equipment and other materials will be dismantled and taken off site for sale or reuse if economically feasible, or cleaned of oil and grease where appropriate and deposited within the onsite demolition landfill. No polychlorinated biphenyl (PCB) – containing equipment will be brought to site for the Century Gold Project. Gearboxes or other equipment containing hydrocarbons that cannot be readily cleaned will be removed from equipment and machinery and trucked off site for disposal at a licensed facility.

All above grade concrete structures will be broken down and reduced to near grade as required. Concrete structures and below grade facilities (if any) will be infilled if needed. Affected areas will be contoured, covered with overburden as needed and revegetated.

Petroleum Products, Chemicals and Explosives

All petroleum products and chemicals will ultimately be removed from the site. Empty tanks will be sold as scrap or reused off site; or cleaned to remove any residual fuel / chemicals and deposited within the demolition landfill. An environmental site investigation will be conducted at the end of operations or early in the closure phase. Soil found to exceed acceptable criteria will be remediated on site or transported off site to an approved disposal facility.

Roads, Pipelines and Power Lines

Site roads will be scarified, edges resloped as appropriate, and revegetated either actively or passively, when no longer needed to support final reclamation, long-term site management and environmental monitoring. Safety berms, if any, along the perimeter of haul roads will be bladed out. Culverts will be removed and roads breached at the culvert locations on site to allow natural drainage.

There will be a number of pipelines at the site. Pipelines or pipeline sections will be sealed and left in place; or purged if needed, dismantled and disposed of in the onsite demolition landfill.

Onsite overhead power lines and associated materials that have no salvage value will be dismantled and deposited in the demolition landfill. Other power equipment and materials including oil-filled transformers will be taken off site for sale or reuse.

Site Drainage and Water Structures

The water diversions will naturalize over the life of the mine and will become the permanent creek channel, even after closure.

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General site drainage will remain at closure with the exception of the removal of culverts at water crossings during site road reclamation activities as appropriate.

Offsite Facilities

It is expected that the 230 kV transmission feeder line constructed to support the Century Gold Project operations will not be required by other local users and will be removed at closure when power is no longer needed. Electrical equipment and poles will be recycled / reused or disposed of consistent with regulatory requirements.

Table 2-1: Preliminary Summary of Project Facilities, Infrastructure and Activities

Facility / Infrastructure ¹	Scale (approximate; pending ongoing engineering)
Open Pit	<ul style="list-style-type: none"> • Production rate (maximum) of 70,000 tpd ore • 560 to 640 m deep, with surface expression of approximately 226 ha
Mineral Waste Management	<p>Waste Rock:</p> <ul style="list-style-type: none"> • Approximately 820 Mt (410 million cubic metres; Mm³); to be determined during ongoing engineering • Stockpile footprint of 460 ha and height of approximately 160 m (Central Waste Rock Storage Area as proposed) <p>Ore:</p> <ul style="list-style-type: none"> • Temporary stockpiles to allow for continuous ore processing: 5 Mt / 2.5 Mm³ <p>Soil and/or Overburden:</p> <ul style="list-style-type: none"> • Temporary storage in designated area if needed • Direct placement on site for progressive reclamation of existing disturbances preferred <p>TMA No. 6:</p> <ul style="list-style-type: none"> • Place waste rock buttress around existing dams • Raise existing dams as required to provide additional tailings storage and to allow the existing tailings surface to be re-shaped into a final configuration for closure <p>TMA West Cell</p> <ul style="list-style-type: none"> • Approximately 300 Mt covering 600 ha • Maximum dam heights are expected to be in the range of up to about 35 m grade
Ore Processing	<ul style="list-style-type: none"> • Production rate (maximum) of 70,000 tpd ore. • Ore to come potentially from Hollinger Mine, Hoyle Pond Mine, Borden Gold Mine, Pamour Mine, other mines as yet undefined, and reprocessing of Dome mineral waste (historic waste rock and tailings)
Onsite Buildings	<ul style="list-style-type: none"> • Processing Facility, 200 m x 500 m ² • Primary Crusher, 30 m x 50 m ² • Administrative and Ancillary Buildings: 40 m x 60 m ² • Maintenance Shop: 50 m x 130 m ² • Warehouse: 30 m x 50 m ² • Reagents and Consumable Storage: 15 m x 20 m ² • Security / Gatehouse: 10 m x 13 m ² • Various temporary construction facilities / trailers
Onsite Infrastructure	<ul style="list-style-type: none"> • Petroleum Product Storage Facilities and Laydown Areas • Water supply and storage ponds • Reclaim Water Pond with surface expression of approximately 120 ha • Seepage and water collection ditch network • Effluent Treatment Plant and discharge pipeline • Freshwater Diversion (South): approximately 2.5 km length • Freshwater Bypass (North): approximately 4 km length • Fuel tank farm and fueling station: storage of approximately 600,000 litres diesel fuel • Offsetting and compensation works (scale and location to be determined); • Other ancillary buildings, facilities and yards (scale and location to be determined). • Power substation and associated onsite power distribution and infrastructure
Offsite Infrastructure	<ul style="list-style-type: none"> • 230 kV feeder transmission line of less than 2 km length

Notes:

¹ No other facilities, infrastructure or related major process / activity are anticipated as part of the Century Gold Project defined for Federal regulatory purposes.

² All building dimensions should be approximate and are provided for consideration of scale only.

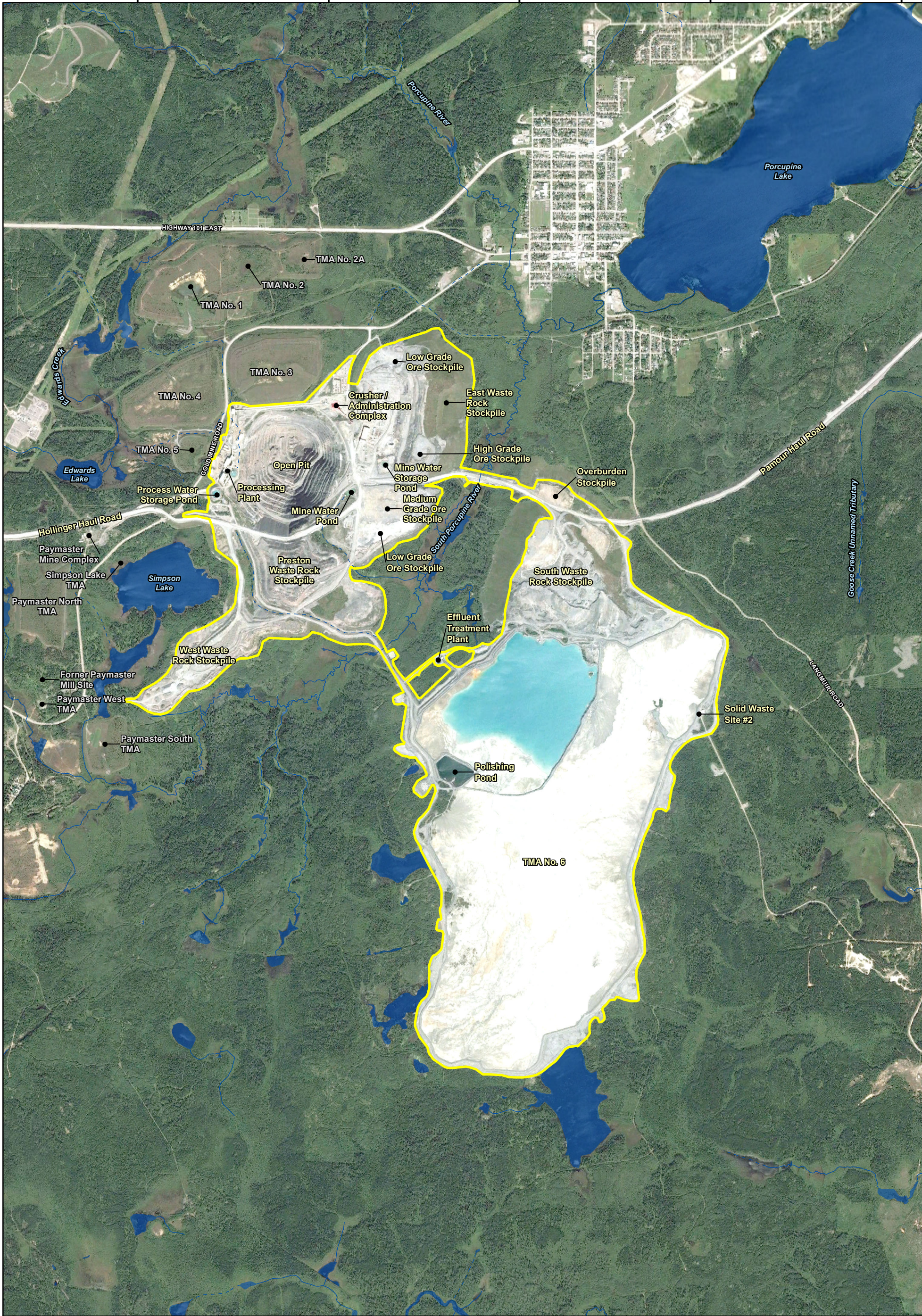
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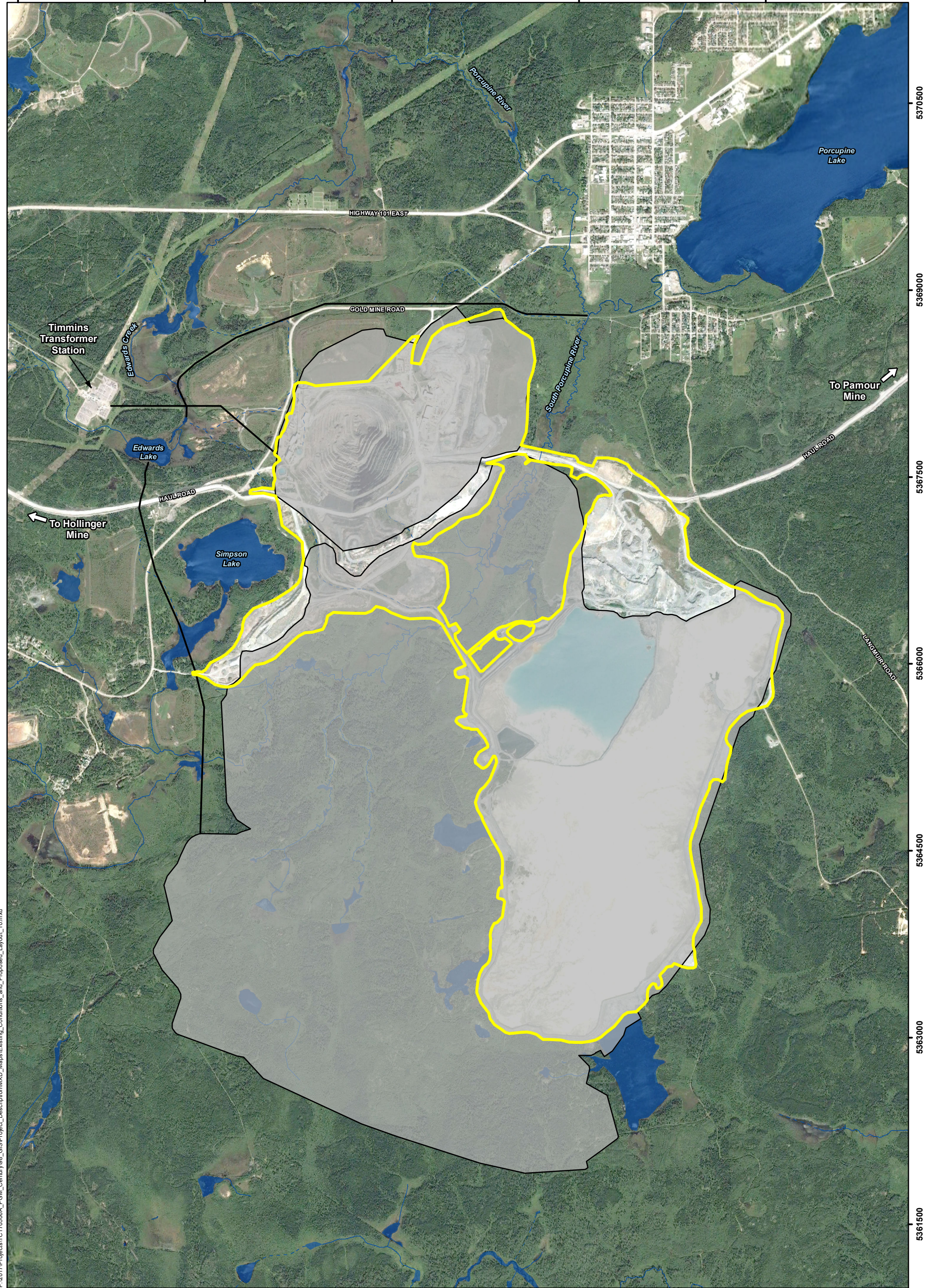
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LEGEND Approximate Existing Dome Operations Area Labelling Key: Historic and Operational Features Historic Mine Features Existing Dome Mine Features	NOTES: - Aerial image extracted from Google Earth, 2016. - Dome features extracted from Golder (2017).	 PORCUPINE GOLD MINES	
		CENTURY GOLD PROJECT Dome Mine Existing Conditions	
Datum: NAD83 Projection: UTM Zone 17N			PROJECT N°: TC170506A FIGURE: 2-1
		SCALE: 1:28,000	DATE: July 2018



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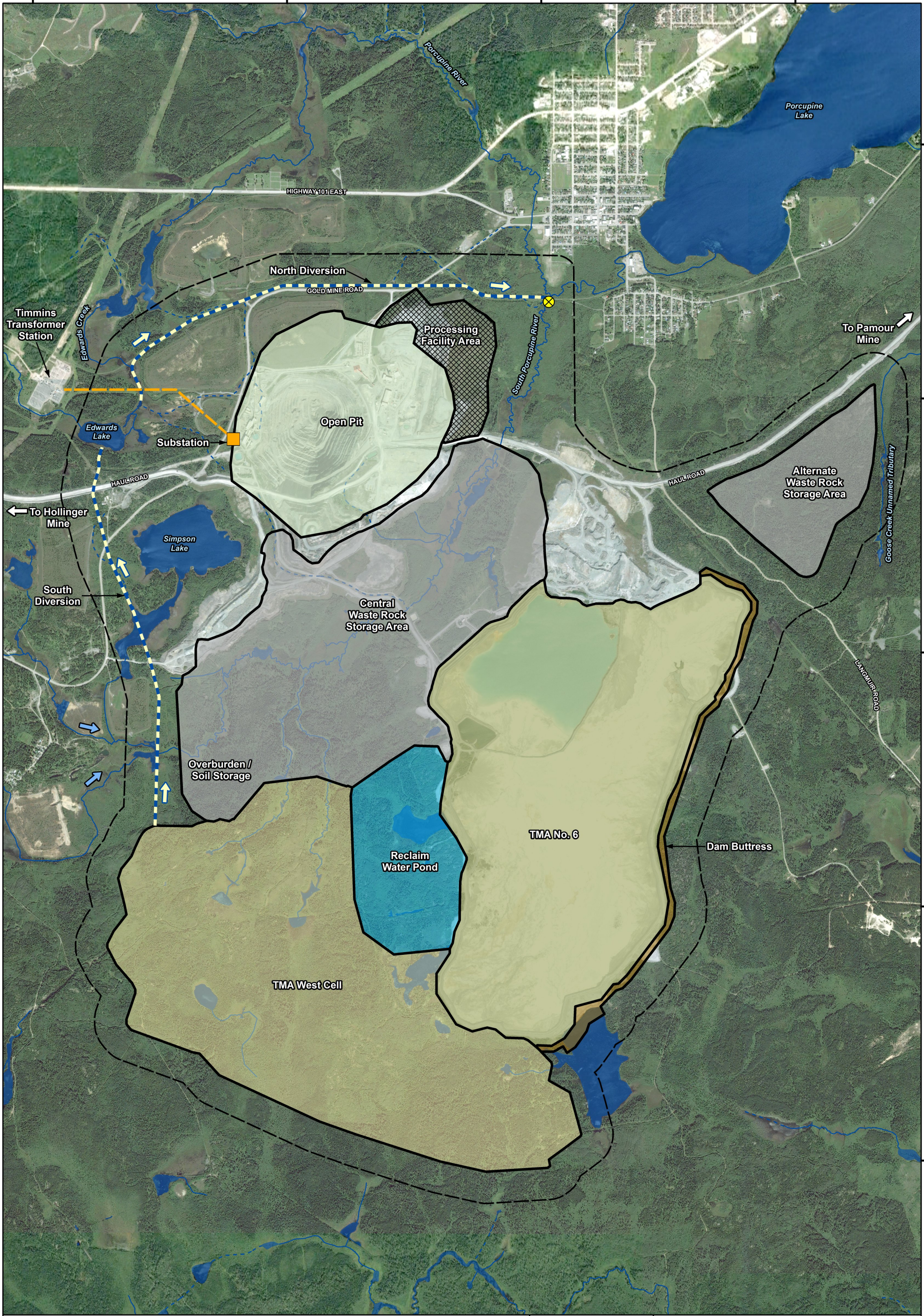
LEGEND Approximate Existing Dome Operations Area Century Gold Project Proposed Facilities	NOTES: - Aerial image extracted from Google Earth, 2016. - Dome features extracted from Golder (2017).	 PORCUPINE GOLD MINES	
		CENTURY GOLD PROJECT Dome Mine Existing Conditions (With Century Gold Project Overlay)	
Datum: NAD83 Projection: UTM Zone 17N		PROJECT N°: TC170506A	FIGURE: 2-2
		SCALE: 1:28,000	DATE: July 2018

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LEGEND Century Gold Project Proposed Facilities Open Pit Expansion Processing Facility Area Dam Buttress Reclaim Water Pond Tailings Management Area Waste Rock Storage Area Proposed Watercourse Diversion Routes (Conceptual)		Substation Potential Effluent Discharge Location Proposed Transmission Line Approximate Century Gold Project Area		NOTES: - Aerial image extracted from Google Earth, 2016. - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.		 PORCUPINE GOLD MINES	
CENTURY GOLD PROJECT							
Century Gold Project Preliminary Site Schematic							
		Datum: NAD83 Projection: UTM Zone 17N				PROJECT N°: TC170506A FIGURE: 2-3	
SCALE: 1:28,000				DATE: July 2018			

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
PGM DOME OPERATIONS (continuing operation; not part of Century Gold Project)	Timing ⁴																									
Operation of Dome Processing Plant, TMA No. 6, Stockpiles and Buildings / Infrastructure ¹	Continued Dome Site Operations																									
Dome Site Progressive Reclamation and Closure of Select Stockpiles and Buildings / Infrastructure			Progressive Reclamation						Active Closure																	

Century Gold Project (new)	Timing ⁴																																	
Summary	Timing ⁴																																	
Engineering and Procurement																																		
Federal EA Process																																		
Environmental Approvals																																		
Construction																																		
Operation (including Progressive Reclamation as practical)																																		
Active Closure																																		
Major Elements ²	Timing ⁴																																	
Redevelopment (including stripping), Operation and Closure of Century Open Pit																																		
Construction, Operation and Closure of Services to the Century Processing Facility ³																																		
Construction, Operation and Closure of Century Processing Facility and Ancillary Buildings ³																																		
Construction, Operation and Closure of Administrative and Ancillary Buildings ³																																		
Construction, Operation and Closure of Maintenance Shops and Warehouses ³																																		
Construction, Operation and Closure of Petroleum Product Storage Facilities and Laydown Areas ³																																		
Construction, Operation and Demolition of Transmission Line, Distribution Lines and Related Facilities ³																																		
Construction, Operation and Closure of Water Storage Ponds ³																																		
Construction, Operation and Closure of Reclaim Pond ³																																		
Construction, Operation and Closure of Additional No. 6 Tailings Management Area Raise for Century Gold Project																																		
Ongoing Construction, Operation / Progressive Reclamation and Closure of Tailings Management Area West Cell ³																																		
Construction, Operation and Closure of Seepage and Water Collection Ditch Network ³																																		
Construction, Operation and Demolition of Century Effluent Treatment Plant ³																																		
Construction and Permanent Operation of Freshwater Diversion (with Offsetting and Compensation)																																		
Construction, Operation / Progressive Reclamation and Closure of Central and Alternate Waste Rock Stockpiles																																		
Relocation (and Potential Reprocessing) of a Portion of East and Preston Waste Rock Stockpiles																																		
Relocation (and Potential Reprocessing) of a Portion of Dome T3 Tailings Management Area																																		
Construction, Operation and Demolition of Compressed Natural Gas Plant (if developed) ³																																		

Notes: ¹ No change to capacity of Dome Processing Plant and infrastructure (no anticipated changes to effluent, or air emissions from ongoing operations).
² No other facilities are planned for the Century Gold Project.
³ The operation of the Century Process Facility and associated facilities may extend after the Century Open Pit closes, pending availability of ore from other sources.
⁴ The timing presented is subject to ongoing engineering design / confirmation and regulatory processes.

 	
CENTURY GOLD PROJECT	
Preliminary Project Sequencing	
PROJECT N ^o : TC170506A	FIGURE: 2-5
SCALE: NTS	DATE: July 2018

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3.0 PROJECT LOCATION

3.1 Century Gold Project Location

3.1.1 Co-ordinates

The approximate centroid of the Century Gold Project is located at coordinates are 482408 E 5367830 N in the Universal Transverse Mercator NAD83 coordinate system (Zone 17); or 81°14'16.69" W and 48°27'48.09" N.

3.1.2 Site Plan

A site schematic of the proposed Century Gold Project, pending further design and the results of ongoing consultation and engagement is provided in Figure 2-3.

3.1.3 Other Maps

The following figures are provided for reference with primary content shown in brackets:

- Figure 3-1: Local Land Use (local communities and residences);
- Figure 3-2: Local Infrastructure (local roads, haul roads, airport, transmission lines);
- Figure 3-3a,b: Municipal Zoning
- Figure 3-4: First Nation Reserves and Treaty Areas;
- Figure 3-5: Regional Watercourses and Waterbodies;
- Figure 3-6: Local Watercourses and Waterbodies;
- Figure 3-7: Fisheries and Fishing Areas;
- Figure 3-8: Regional Protected Lands; and
- Figure 3-9: Local Protected Lands.

There are no First Nations Reserves in close proximity to the Century Gold Project:

- Flying Post First Nation Reserve 73 (53 km west, 79 km by road);
- Matachewan First Nation Reserve 72 (58 km southeast, 144 km by road);
- Mattagami First Nation Reserve 71 (66 km south-southwest, 107 km by road);
- Taykwa Tagamou Nation New Post Reserve 69A (66 km northeast, 123 km by road); and
- Wahgoshig First Nation Reserve 70 (91 km south-southwest, 107 km by road).

These communities are all signatories to Treaty 9 (James Bay Treaty).

3.1.4 Photographs

A collection of photographs of existing conditions relevant to the Century Gold Project is provided in Appendix B.

3.1.5 Proximity to Other Land Uses

Figures 3-1 to 3-3a,b provides an overview of the land uses in proximity to the Century Gold Project. There are no residences on the Century Gold Project site. The closest structures to the Century Gold Project site are permanent residences shown on Figure 3-1 within or outside of built-up areas (approximately 2 km away from the Century Pit centroid).

The majority of the potential environmental effects related to the Century Gold Project will be confined to the site itself and local environs. There are no planned facilities or activities associated with the Century Gold Project on:

- Federal lands of any type;
- Provincial Parks or Conservation Reserves;
- Areas of Natural and Scientific Interest (ANSI);
- Provincial Forest Reserves; or
- First Nations Reserve lands.

Further discussion regarding proximity to traditional territories, traditional land uses and Indigenous land claims is provided in Section 3.2.4. Goldcorp has not been provided with maps of the traditional territories to date from any First Nation communities, although communications have been initiated. To Goldcorp's knowledge, traditional territory maps for local First Nation or Métis communities are not available from public sources.

Table 3-1 provides a summary of the distances of the Century Gold Project (centroid of open pit) from: environmentally sensitive areas (such as migratory bird sanctuaries, National Wildlife area, priority ecosystems), and Provincial and international boundaries.

As indicated in Section 5.1.11, a portion of the project is proposed to overprint part of the Class 1 Porcupine Lake Wetland Complex pending ongoing engineering and engagement with regulatory authorities. Class 1 wetlands are defined by the MNRF as Provincially Significant Wetlands according to an evaluation system for northern Ontario. It is referred to as a complex because there are local disturbances that over the years have segregated the wetland into sections.

3.2 Land and Water Use

3.2.1 Zoning Designations

The Century Gold Project is located within the municipal planning area of the City of Timmins, and is subject to the Official Plan and zoning by-laws. The current Official Plan was approved on July 16, 2010 and came into force on August 10, 2010. The Century Gold Project overlaps the following zones in accordance with the zoning by-law:

- Employment Area Zones – Mining;
- Resource Development Zone – Open Space;

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- Resource Development Zone – Hazard Lands; and
- Resource Development Zone – Rural.

There is no known conflict between the proposed Century Gold Project development and existing municipal planning. Discussions will continue to be held with the City of Timmins with respect to the proposed Century Gold Project, and particularly with respect to stewardship of natural heritage features and areas, including portions of the Porcupine Lake Provincially Significant Wetland Complex.

The Century Gold Project also overlaps with Provincial Crown land (the Deloro Grassy Complex, G1820); however, lands that fall within the Municipal jurisdiction of the City of Timmins are subject to the existing Official Plan and Zoning By-law.

3.2.2 Legal Description of Lands

The Century Gold Project is located in southeast Timmins (Ward 2 and Ward 3), southwest of Porcupine Lake at the joining of the Tisdale, Whitney, Deloro and Shaw Townships (Figure 1-3). Land tenure associated with the Century Gold Project site currently includes surface and mineral tenure held by Goldcorp, and lands held by others under negotiations or are following the required authorization processes. The status of these negotiations / applications is confidential; however, as of the publication date of this document, 88% of the surface tenure in the Tisdale and Deloro Townships are held privately including Goldcorp holdings, and 12% of the surface tenure is held by public entities such as unpatented lands, Crown lands, or by the City of Timmins. Goldcorp is confident that the remaining tenure required to develop the Century Gold Project will be acquired prior to completion of the EA process.

Municipal zoning for the majority of the site, is shown on Figures 3-3a,b. The Project footprint is within the listed mineral potential zoning.

3.2.3 Land Use, Water Use, Resource Management or Conservation Plans

The Century Gold Project is located within the City of Timmins and is governed by the Official Plan (Section 3.2.1). There are also a number of management plans that may apply to the Century Gold Project that were considered in the preliminary design and will be considered in design optimization and development as relevant:

- **Mattagami River System Water Management Plan:** The Mattagami Region Conservation Authority has the mandate to protect and manage, the land and water resources of the Mattagami watersheds. A water management plan is in place for the Mattagami watershed, with the aim of promoting hydroelectric power generation and aquatic habitat and resources conservation. The Mattagami watershed is also considered a protected area under the Source Water Protection Plan.

- **Forest Management Plan:** The majority of forests in Ontario are on Crown (public) land. The Century Gold Project is situated within the boundaries of the Forest Management Plan for the Abitibi River Forest and Romeo Malette Forest. Discussions will be held with the MNRF and the sustainable forest rights holder(s), regarding resources within the Century Gold Project footprint and any potential areas of concern. Should merchantable timber require removal as part of the Century Gold Project development (under appropriate approvals), the timber will be offered to the sustainable forest licence holder, and if not accepted, utilized for reclamation purposes or potentially offered to local First Nations communities / others.

There are no other known management or conservation plans relevant to the Century Gold Project.

3.2.4 Traditional Knowledge and Traditional Land Use

Goldcorp has a RDA in place with the four First Nations that are local to the Century Gold Project:

- Flying Post First Nation;
- Matachewan First Nation;
- Mattagami First Nation; and
- Wahgoshig First Nation.

The closest First Nation Reserve to the Century Gold Project is the Flying Post First Nation Reserve 73 (located approximately 53 km to the west; Figure 3-4). Goldcorp has not been provided with maps of the traditional territories of any of these First Nation communities although they have been requested. There is an expectation based on past engagement with the RDA communities, that the Flying Post First Nation, Matachewan First Nation, Mattagami First Nation and Wahgoshig First Nation consider the Century Gold Project site within their traditional territories. To Goldcorp's knowledge based on research to date, traditional territory maps for these Indigenous communities and others in the region are not available from public sources.

As indicated in Section 1, the Century Gold Project is being developed on a brownfield site with historic mining development dating back over one hundred years. Earlier mining practices may have resulted in a general avoidance of the immediate area for traditional land use practices. There is no current traditional use of the Dome Mine industrial lands as there is limited vegetation and wildlife present, and access is only available on request for safety reasons. Goldcorp has not received any requests for access for traditional purposes to date for the Dome Mine.

In consultation with the RDA partners (December 2017 to January 2018), Goldcorp has confirmed that there is limited documented traditional knowledge and traditional land use within the Century Gold Project area. Through the RDA partnership, research is being initiated with the communities and Indigenous traditional knowledge experts to document the available information for the Century Gold Project area. Goldcorp will continue to update its information base regarding traditional land uses practices by other Indigenous groups, resulting from engagement activities described in Section 10, as applicable.

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The Century Gold Project is located within the boundaries of Treaty No. 9 (Figure 3-4). Treaty No. 9, also known as the James Bay Treaty, is an agreement established in July 1905 between the Governments of Canada and Ontario, and Cree and Ojibwa First Nation communities in what is now northern Ontario. The boundary of Treaty No. 9 was expanded through adhesions in 1930. A First Nations and Treaties Map published by the Government of Ontario which shows Reserves and approximate extent of treaties for context is included as Appendix C (Figure AppC-1).

The Century Gold Project is located within the Abitibi / Temiscamingue Traditional Harvest Territory of the Métis Nation of Ontario (Figure AppC-2, Appendix C).

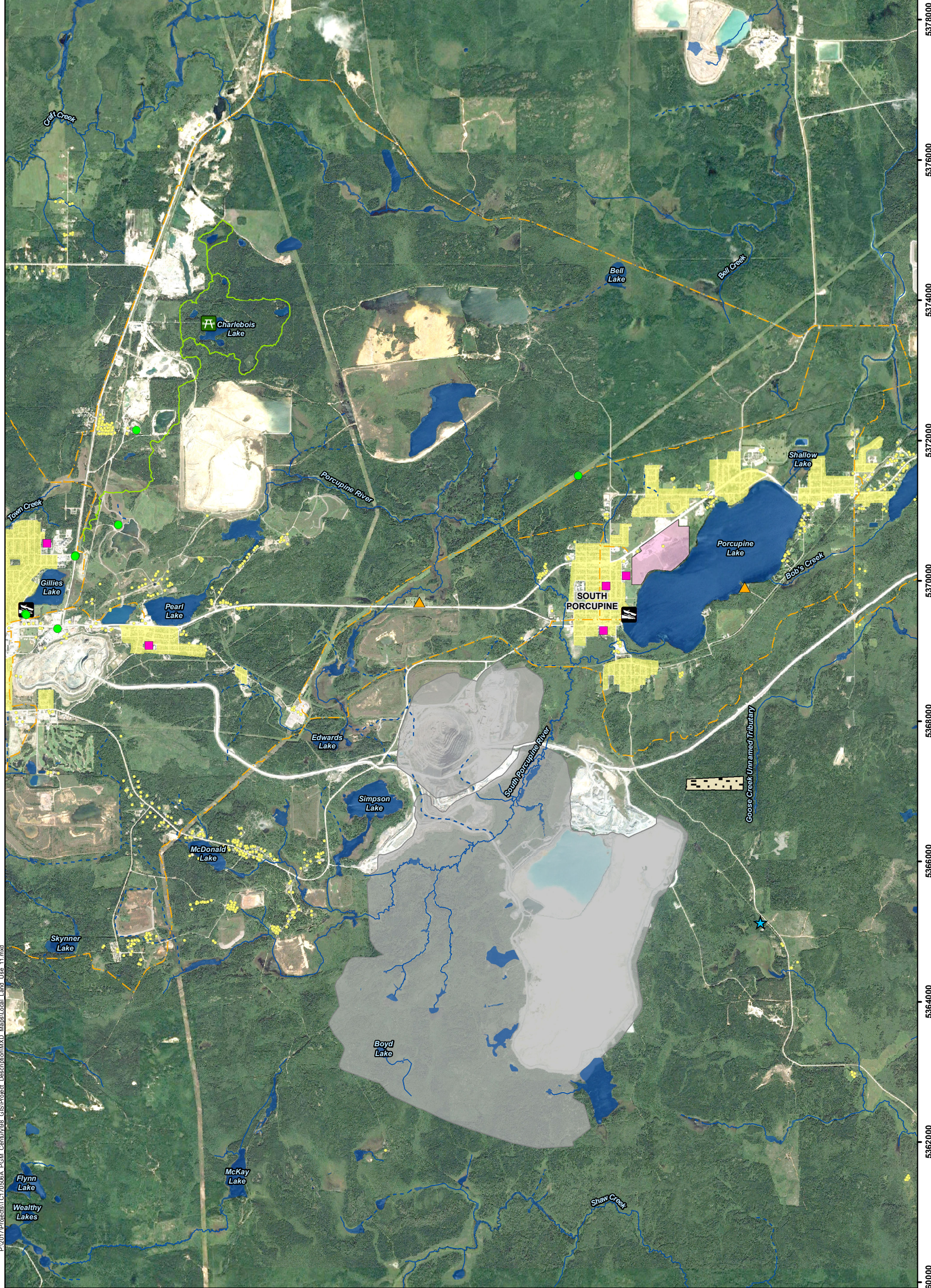
The James Bay Cree Nation has a legal action asserting Aboriginal title and Aboriginal rights over a large portion of northeastern Ontario (Eeyou Istchee – Ontario). This includes an assertion of Aboriginal rights over an area west of Nighthawk Lake / east of McArthur Lake which may include the Century Gold Project.

Table 3-1: Relative Locations of Areas of Interest

Closest Areas of Interest	Distance (km) ¹
Federal Lands (excluding First Nation Reserves)	
Pukaskwa National Park	318
Lake Superior National Marine Conservation Area	419
National Wildlife Areas	
Chapleau Crown Game Preserve	127
Nipissing Crown Game Preserve	206
Himsworth Game Preserve	289
Priority Ecosystems (within 50 km)	
Porcupine Lake Wetland, Provincially Significant	1
Gold Lake Wetland, Provincially Significant	10
Kraft Creek / Murphy Creek Wetland, Provincially Significant	11
Pamour Striations ANSI, Earth Science	11
Carman Bay Wetland, Provincially Significant	15
Frederick House River Wetland, Provincially Significant	20
Whitefish River Wetlands Unit Wetland, Provincially Significant	22
Night Hawk Lake Shoreline Bluffs Conservation Reserve	24
Hwy 101 Conglomerate ANSI, Earth Science	27
Kettle Lakes Provincial Park	28
Kettle Lake Erratic ANSI, Earth Science	29
Tatachikapika River Plain Conservation Reserve	30
Frederick House Lake Provincial Nature Reserve	31
Barlow-Ojibway Form ANSI, Earth Science	31
Dana-Jowsey Lakes Provincial Park (Natural Environment Class)	35
Driftwood Wetland, Provincially Significant	36
Moose Lake Wetland, Provincially Significant	36
Elspeth Lake White Birch Outwash Conservation Reserve	43
Mahaffy Township Ground Moraine Conservation Reserve	44
Whitefish And East Whitefish Lakes Sandy Till Upland Conservation Reserve	45
Whitefish River Sandy Till Conservation Reserve	45
Northern Claybelt Forest Complex Conservation Reserve	46
Driftwood River White Cedar Lacustrine Conservation Reserve	46
Migratory Bird Sanctuaries / Important Bird Areas	
On150 – Manitoulin Island North Shore Gore Bay; Globally Significant: Congregatory Species	280
On017 - The Cousinsblind River, Ontario; Globally Significant: Congregatory Species	289
Boundaries	
Ontario Provincial border with Québec, land boundary	127
Ontario Provincial border with United States of America, water boundary	323

Note:

¹ Approximate distance from Century Open Pit centroid.



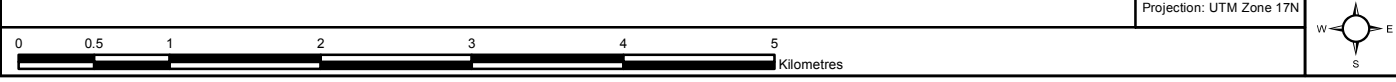
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LEGEND

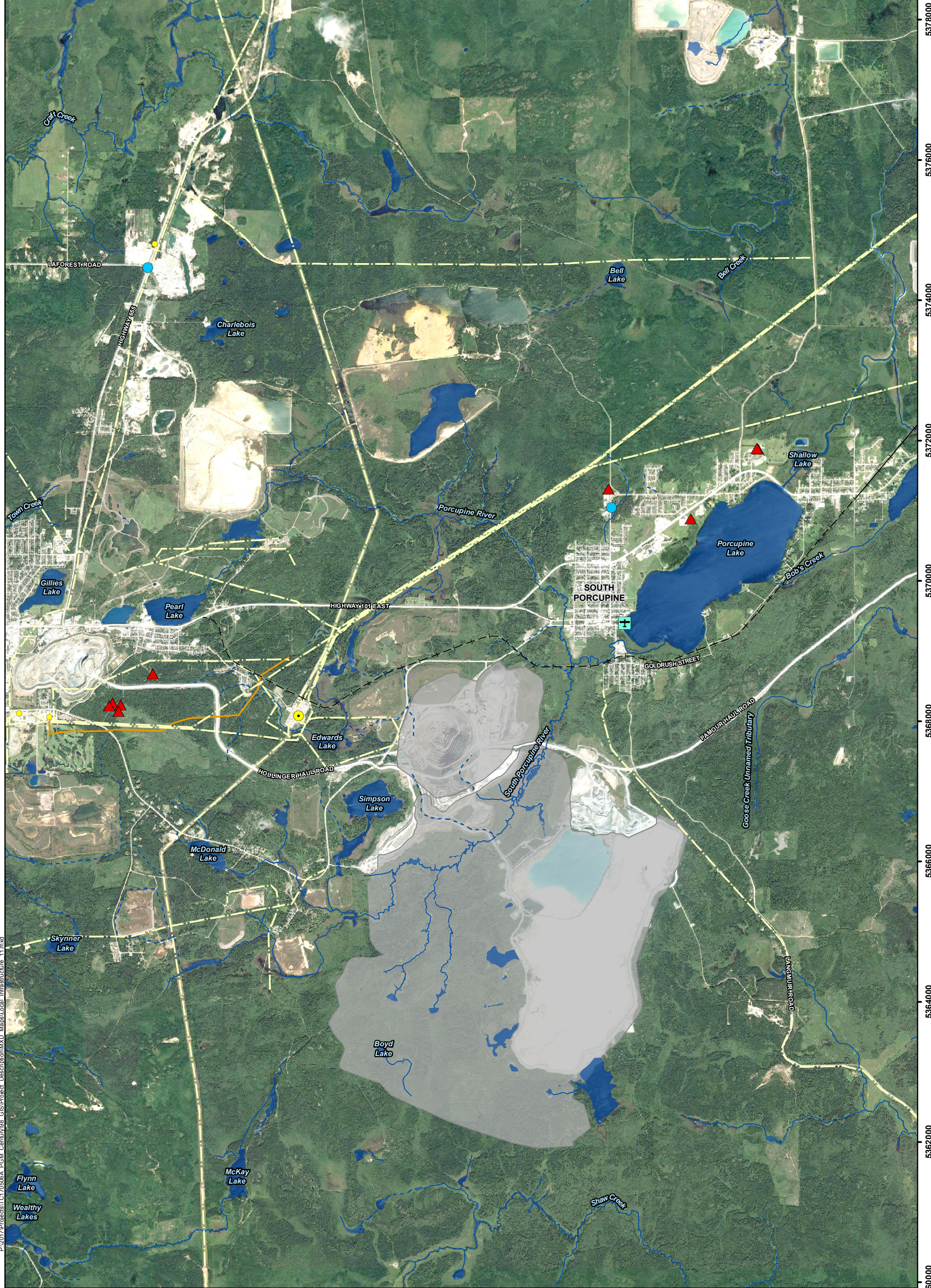
Elementary School*	Industrial (Porcupine Springs)	Century Gold Project
College / University*	Cemetery*	Intermittent Watercourse / Ditch
Picnic Area	Trail Head	Permanent Watercourse
Fishing Access Point (Boat Launch)	Hiking Trail	Waterbody
Built-up Areas	Snowmobile Trail	
Buildings Outside of Built-up Areas	Quarry (Great White Minerals Ltd.)	

NOTES:
 - Aerial image extracted from Google Earth, 2016.
 - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.
 * Denotes information digitized from the City of Timmins interactive web mapping service.

PORCUPINE GOLD MINES	
CENTURY GOLD PROJECT	
Local Land Use	



Datum: NAD83 Projection: UTM Zone 17N		PROJECT N°: TC170506A	FIGURE: 3-1
		SCALE: 1:50,000	DATE: July 2018



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LEGEND

- | | |
|---|----------------------------------|
| Timmins / Porcupine Lake Seaplane Base | Century Gold Project |
| Timmins Transformer Station (Hydro One) | Railway |
| Other Power Stations | Abandoned Railway |
| Pumping Station | Intermittent Watercourse / Ditch |
| Communication Tower | Permanent Watercourse |
| Transmission Line | Waterbody |
| Pipeline | |

NOTES:
 - Aerial image extracted from Google Earth, 2016.
 - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.
 - All topographic information extracted from Land Information Ontario, MNRF.

GOLDCORP PORCUPINE GOLD MINES **wood.**

CENTURY GOLD PROJECT
Local Infrastructure

Datum: NAD83
 Projection: UTM Zone 17N

PROJECT N^o: TC170506A

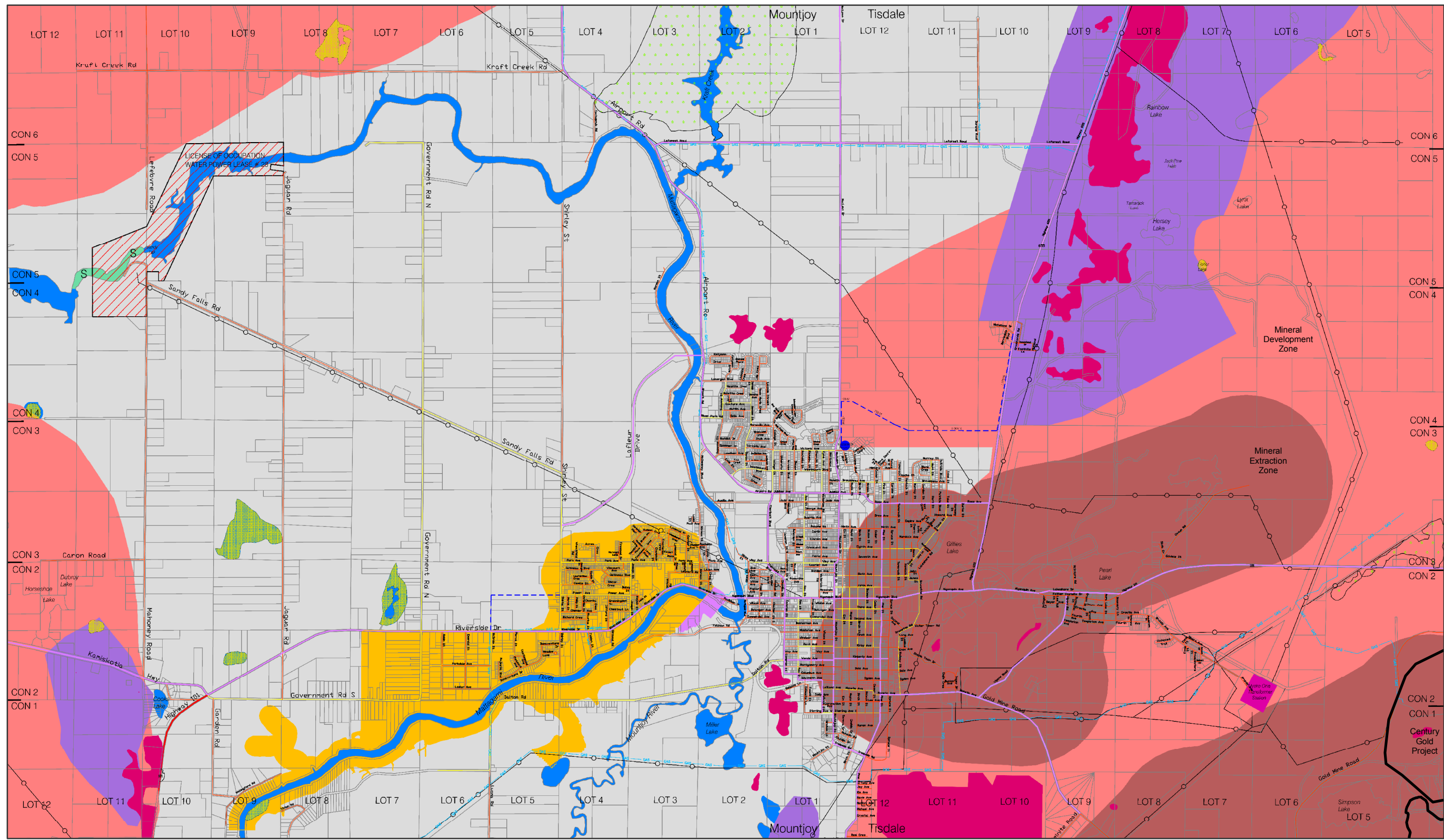
FIGURE: 3-2



SCALE: 1:50,000

DATE: July 2018

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LEGEND

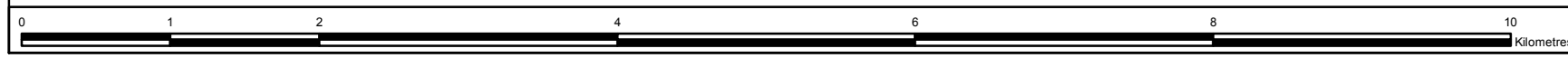
- | | | | | |
|---|--|---|---|------------------------------------|
| <p>Mineral Aggregate Operations and Reserves</p> <ul style="list-style-type: none"> - Pit or Quarry - Aggregate Reserves <p>Mineral Potential Area</p> <ul style="list-style-type: none"> - Mineral Extraction Zone - Mineral Development Zone <p>Provincial Parks and Management Area</p> <ul style="list-style-type: none"> - Provincial Parks - Conservation Reserves - Recommended Protected Areas (Under Interim Protection) | <p>Natural Heritage Features and Areas:</p> <ul style="list-style-type: none"> - Nesting Site - Wild Life Corridor - ANSI - Spawning Area - Provincially Significant Wetlands - All Other Wetlands - Moose Feeding - Cold Water Fisheries | <p>Provincial Highway</p> <p>City:</p> <ul style="list-style-type: none"> - Arterial - Collector - Local Access Streets <p>Resource Access Roads</p> <ul style="list-style-type: none"> - Private Roads - Railway Lines - Airport - Union Gas Lines | <p>Power Transmission Lines</p> <ul style="list-style-type: none"> - Infrastructure Service Corridor - City Boundary - Township Boundary <p>Intake Protection Zones</p> <ul style="list-style-type: none"> - Intake Protection Zone 1 - Intake Protection Zone 2 | <p>Century Gold Project</p> |
|---|--|---|---|------------------------------------|

NOTES:
 - Image extracted from City of Timmins Official Plan Schedule B1, Dec. 2009.

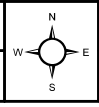


CENTURY GOLD PROJECT

**Municipal Zoning
 Century Gold Project (West)**



Datum: NAD83
 Projection: UTM Zone 17N



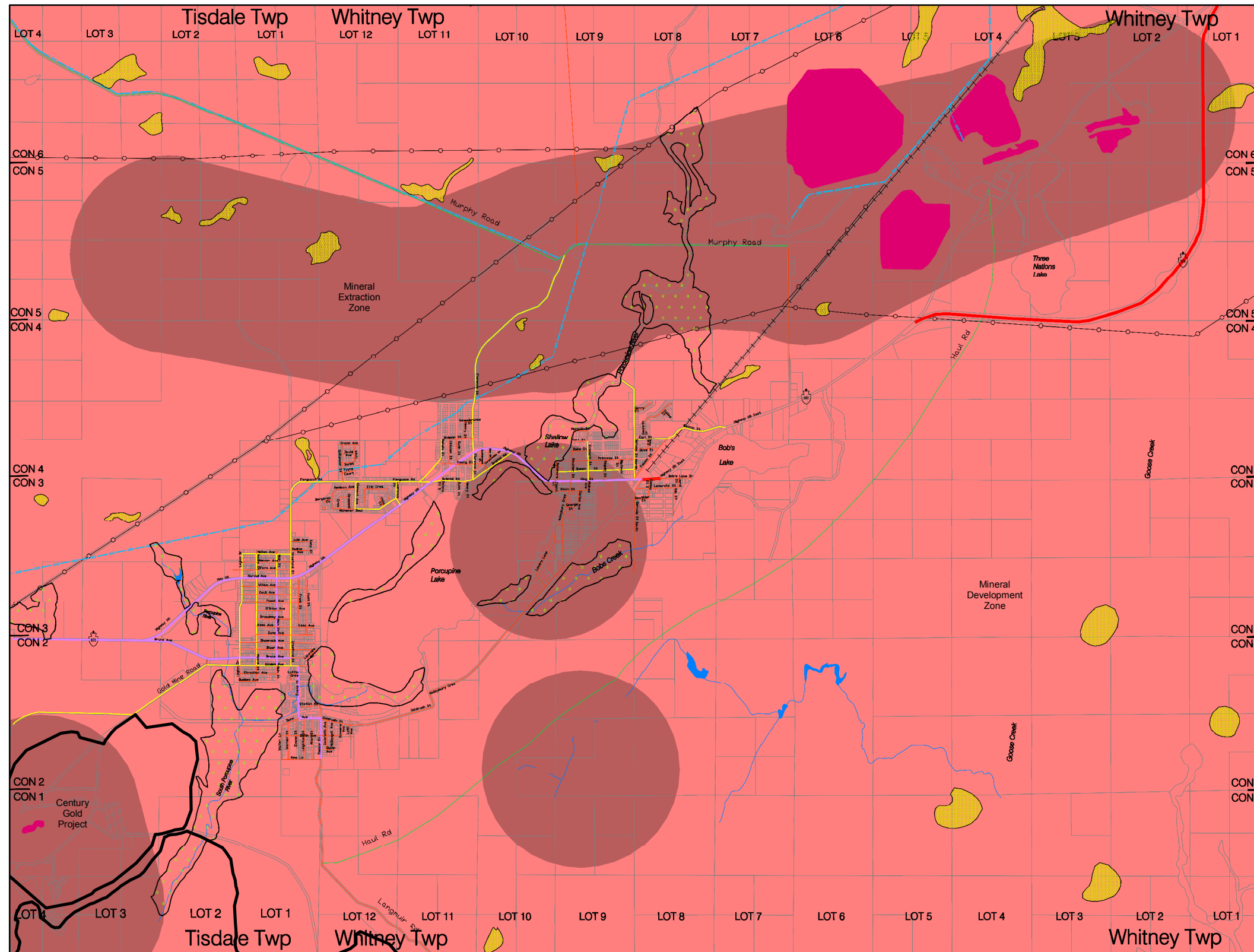
PROJECT N°: TC170506A

FIGURE: 3-3a

SCALE: 1:46,000

DATE: July 2018

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LEGEND

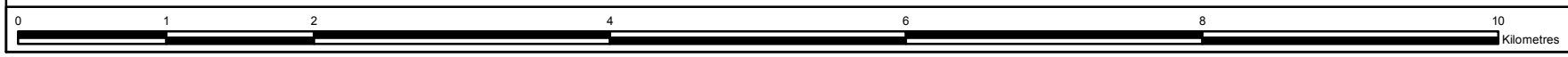
- | | | | | |
|---|---|--|--|------------------------------------|
| <p>Mineral Aggregate Operations and Reserves</p> <ul style="list-style-type: none"> -Pit or Quarry -Aggregate Reserves <p>Mineral Potential Area</p> <ul style="list-style-type: none"> -Mineral Extraction Zone -Mineral Development Zone <p>Provincial Parks and Management Area</p> <ul style="list-style-type: none"> -Provincial Parks -Conservation Reserves -Recommended Protected Areas (Under Interim Protection) | <p>Natural Heritage Features and Areas:</p> <ul style="list-style-type: none"> -Nesting Site -Wild Life Corridor -ANSI -Spawning Area -Provincially Significant Wetlands -All Other Wetlands -Moose Feeding -Cold Water Fisheries | <p>Provincial Highway</p> <ul style="list-style-type: none"> City: -Arterial -Collector -Local Access Streets <p>Resource Access Roads</p> <ul style="list-style-type: none"> Private Roads Railway Lines Airport Union Gas Lines | <p>Power Transmission Lines</p> <ul style="list-style-type: none"> Infrastructure Service Corridor City Boundary Township Boundary <p>Intake Protection Zones</p> <ul style="list-style-type: none"> -Intake Protection Zone 1 -Intake Protection Zone 2 | <p>Century Gold Project</p> |
|---|---|--|--|------------------------------------|

NOTES:
- Image extracted from City of Timmins Official Plan Schedule B2, Dec. 2009.

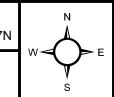


CENTURY GOLD PROJECT

**Municipal Zoning
Century Gold Project (East)**

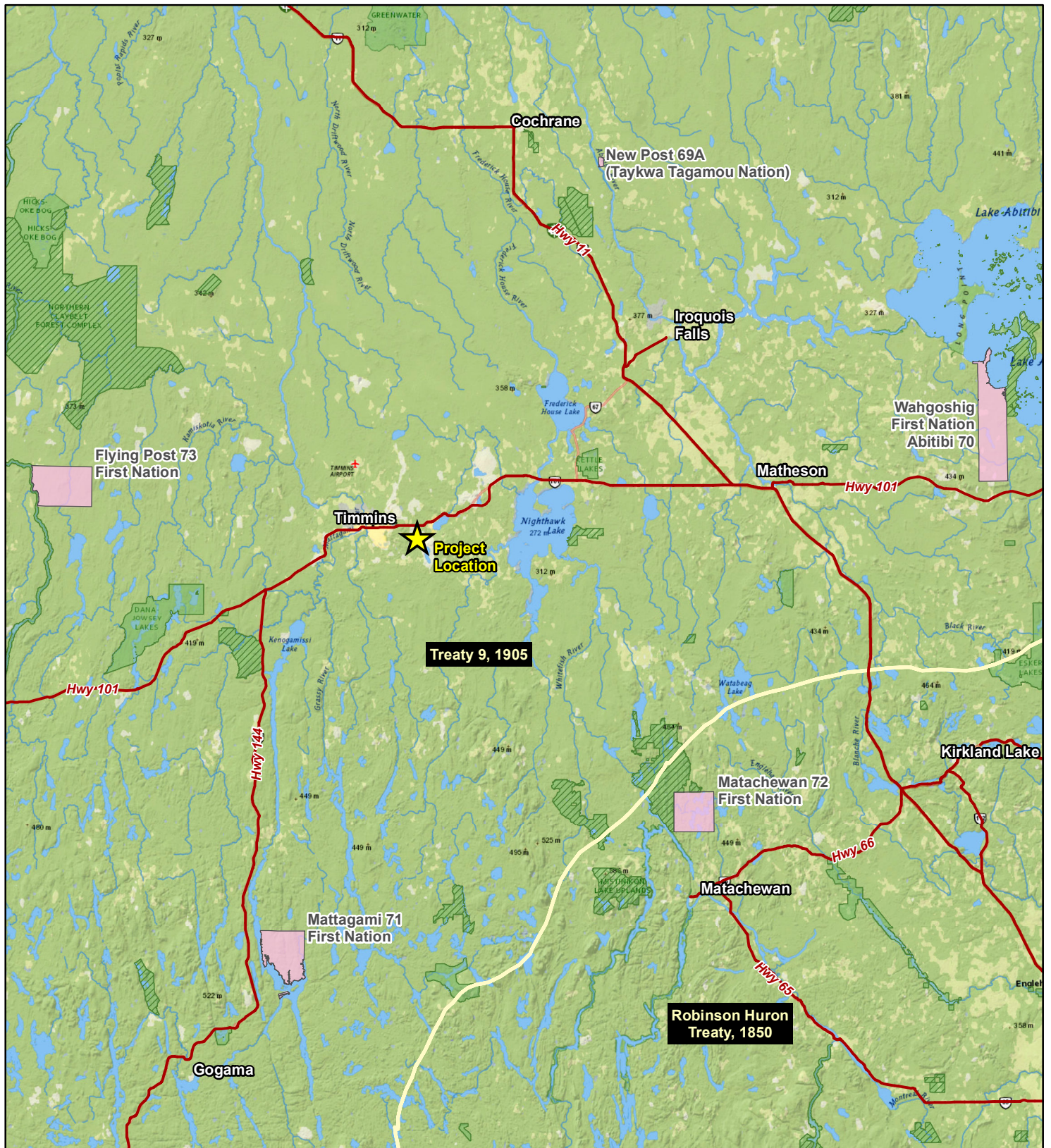


Datum: NAD83
Projection: UTM Zone 17N



PROJECT N ^o : TC170506A	FIGURE: 3-3b
SCALE: 1:45,500	DATE: July 2018

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LEGEND Project Location Regional Highways Conservation Reserve Area Provincial Park Area First Nation First Nation Treaty Boundary	NOTES: - Highway information extracted from National Road Network, Geogratis.ca - Background topographic map information extracted from ESRI Base Map Services - Watershed boundaries extracted from LIO tertiary watersheds. - Additional park information and conservation reserve information extracted from Land Information Ontario, MNRF	PORCUPINE GOLD MINES 	
	Datum: NAD83 Projection: UTM Zone 17N	CENTURY GOLD PROJECT First Nation Reserves and Treaty Areas	
		PROJECT N ^o : TC170506A SCALE: 1:860,000	FIGURE: 3-4 DATE: July 2018

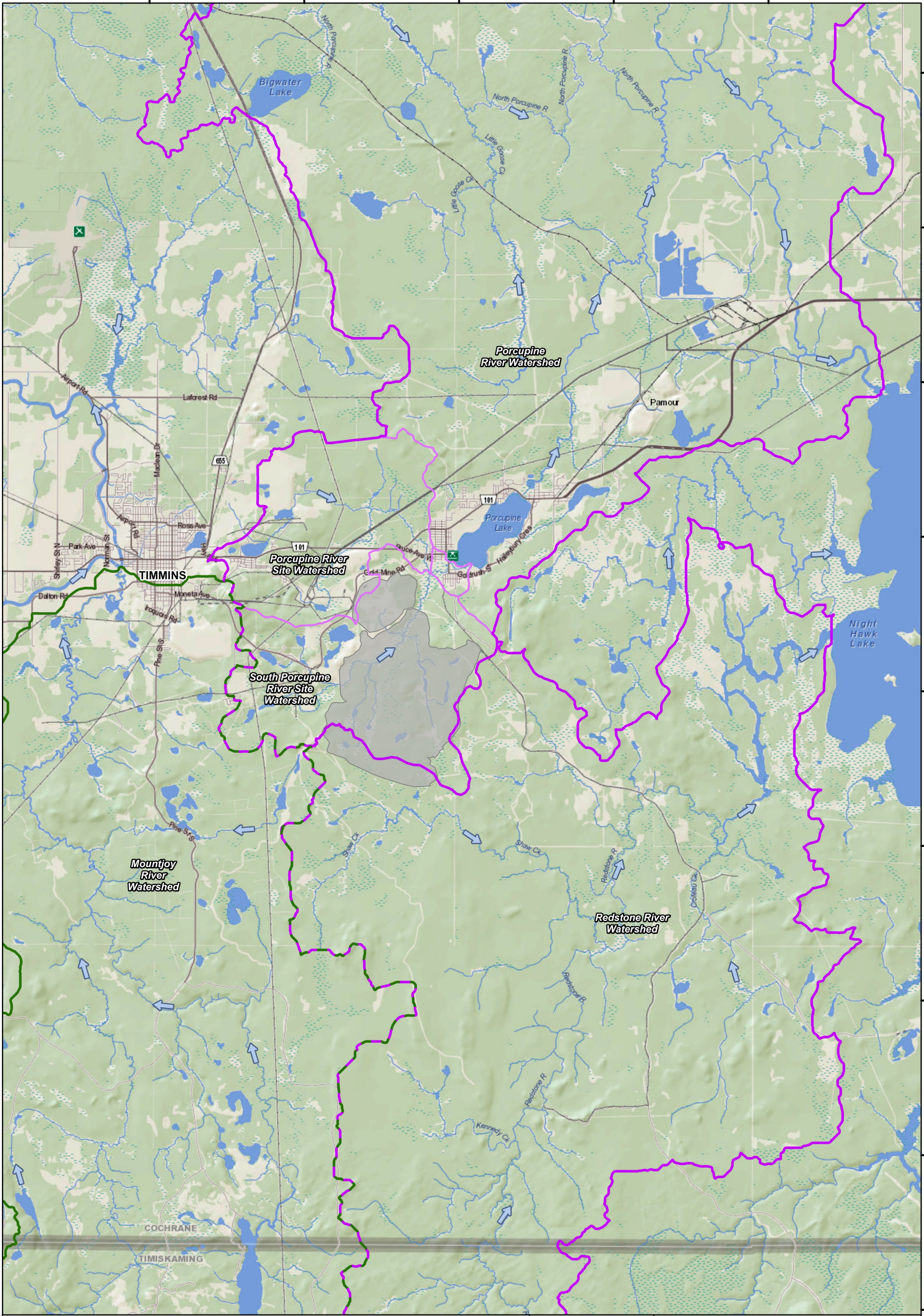
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LEGEND

- Century Gold Project
- Flow Direction
- Regional Watersheds Flowing into Mattagami River → Mountjoy River approx. 543 km²
- Regional Watersheds Flowing into Night Hawk Lake → Porcupine River approx. 443 km²
Redstone River approx. 498 km²
- Site Watersheds → Porcupine River approx. 30 km²
South Porcupine River approx. 39 km²

NOTES:
 - Regional watersheds were extracted from Land Information Ontario and modified in areas where LIDAR information was available.
 - Site watersheds were derived using LIDAR information and OFAT.
 - Boundaries have not been field confirmed.



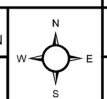
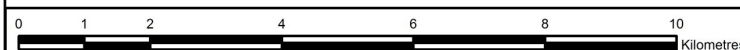
CENTURY GOLD PROJECT

Regional Watercourses and Waterbodies

Datum: NAD83
 Projection: UTM Zone 17N

PROJECT N°: TC170506A

FIGURE: 3-5
 SCALE: 1:115,000
 DATE: July 2018



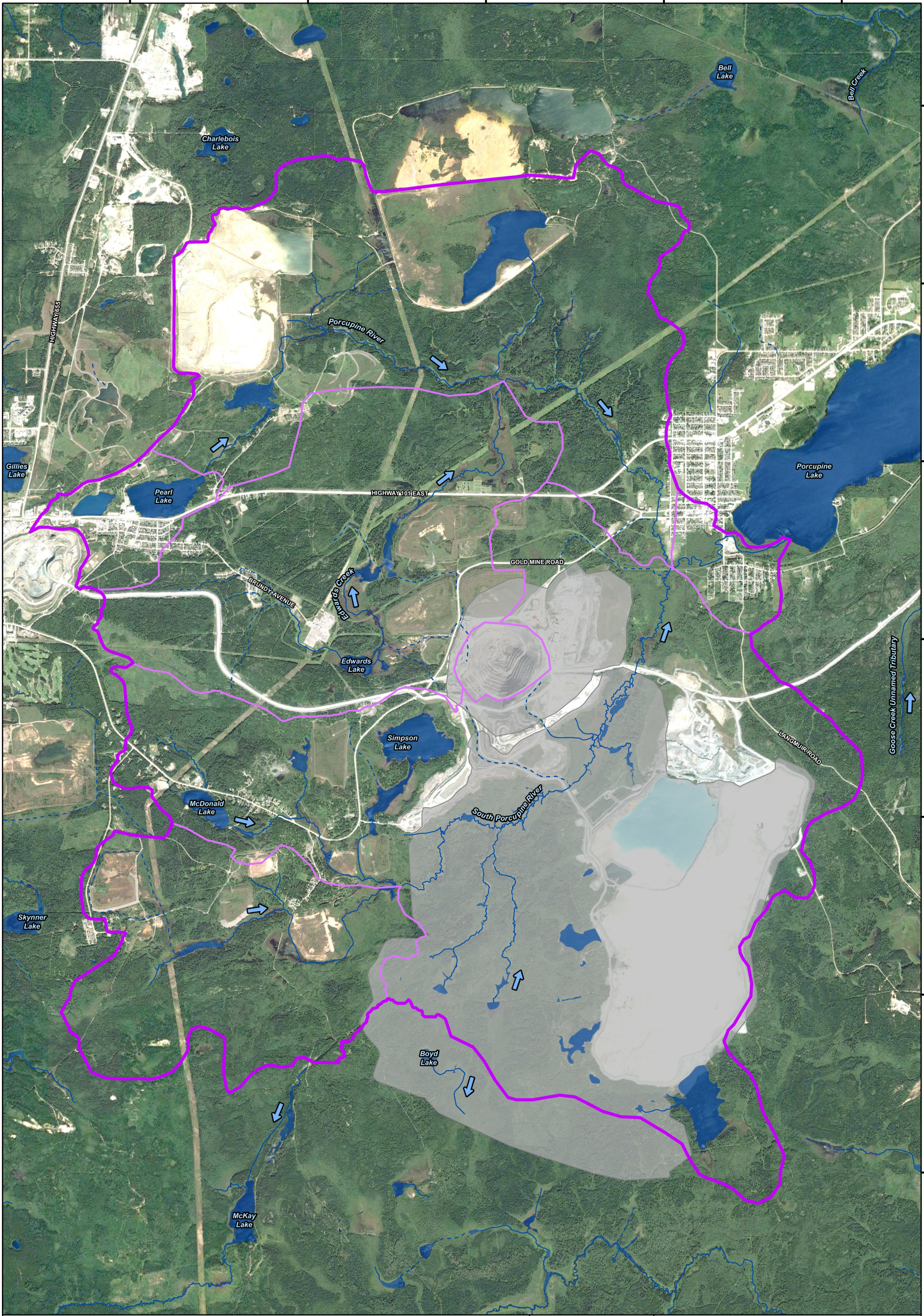
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LEGEND Century Gold Project Watershed Subwatersheds Flow Direction Intermittent Watercourse / Ditch Permanent Watercourse Waterbody	NOTES: - Aerial image extracted from Google Earth, 2016. - Watersheds estimated using LIDAR information where available and OFAT. - Field truthing / surveying has not confirmed boundaries. - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.		
		CENTURY GOLD PROJECT Local Watercourses and Waterbodies	
		Datum: NAD83 Projection: UTM Zone 17N	
		PROJECT N°: TC170506A	FIGURE: 3-6
		SCALE: 1:40,000	DATE: July 2018

478000

480000

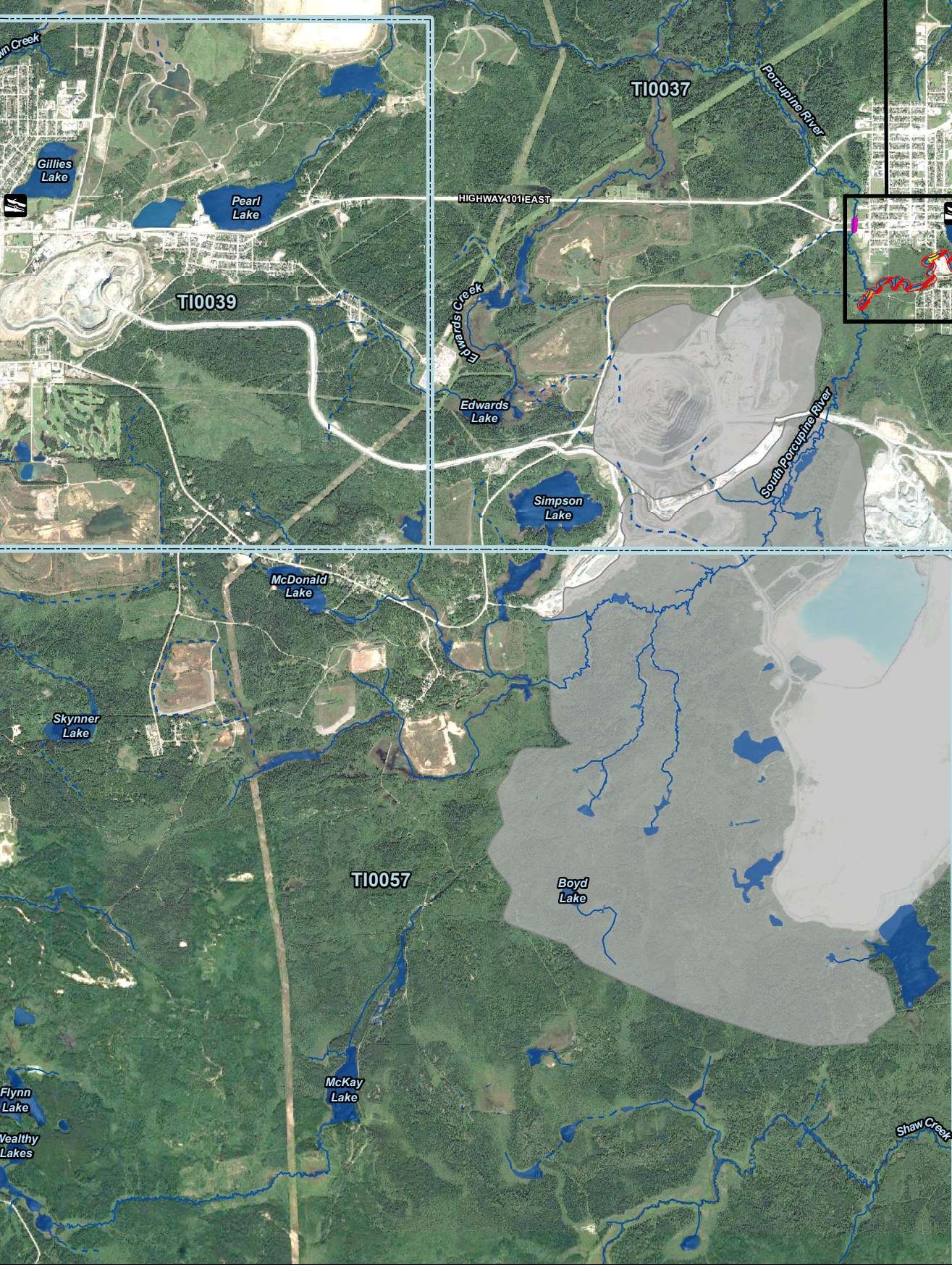
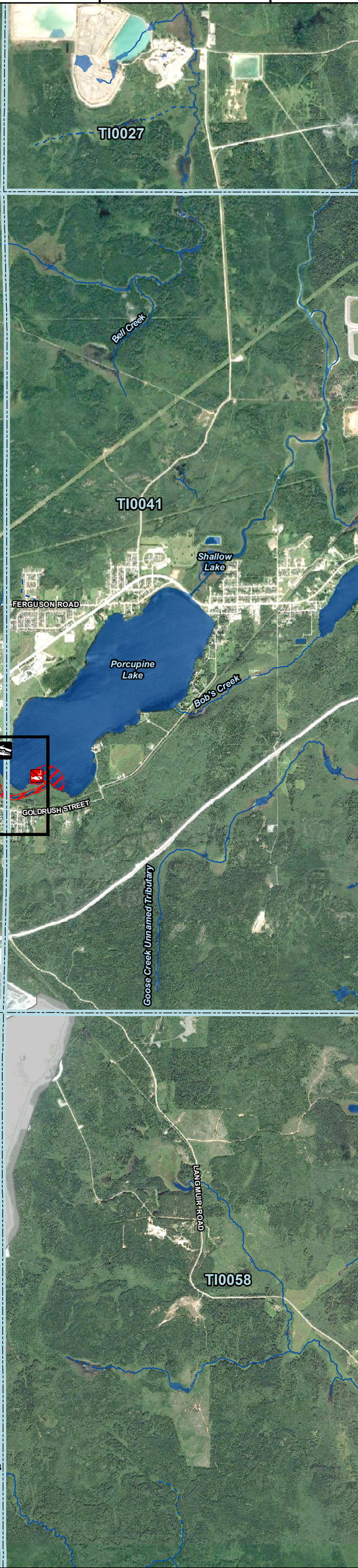
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ENLARGED AREA



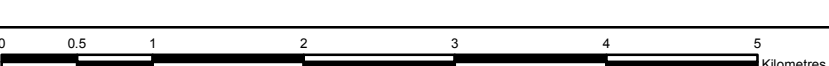
- LEGEND**
- Fishing Access Point (Boat Launch)
 - Fish Sanctuary (No Fishing April 1 to June 15)
 - Walleye Staging Area
 - Walleye Spawning Area
 - White Sucker Spawning Area
 - Bait Harvet Area (Labelled with ID)
 - Century Gold Project
 - Intermittent Watercourse / Ditch
 - Permanent Watercourse
 - Waterbody

NOTES:
 - Aerial image extracted from Google Earth, 2016.
 - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.

GOLDCORP wood.
 PORCUPINE GOLD MINES

CENTURY GOLD PROJECT

Fisheries and Fishing Areas



Datum: NAD83
 Projection: UTM Zone 17N

PROJECT N°: TC170506A

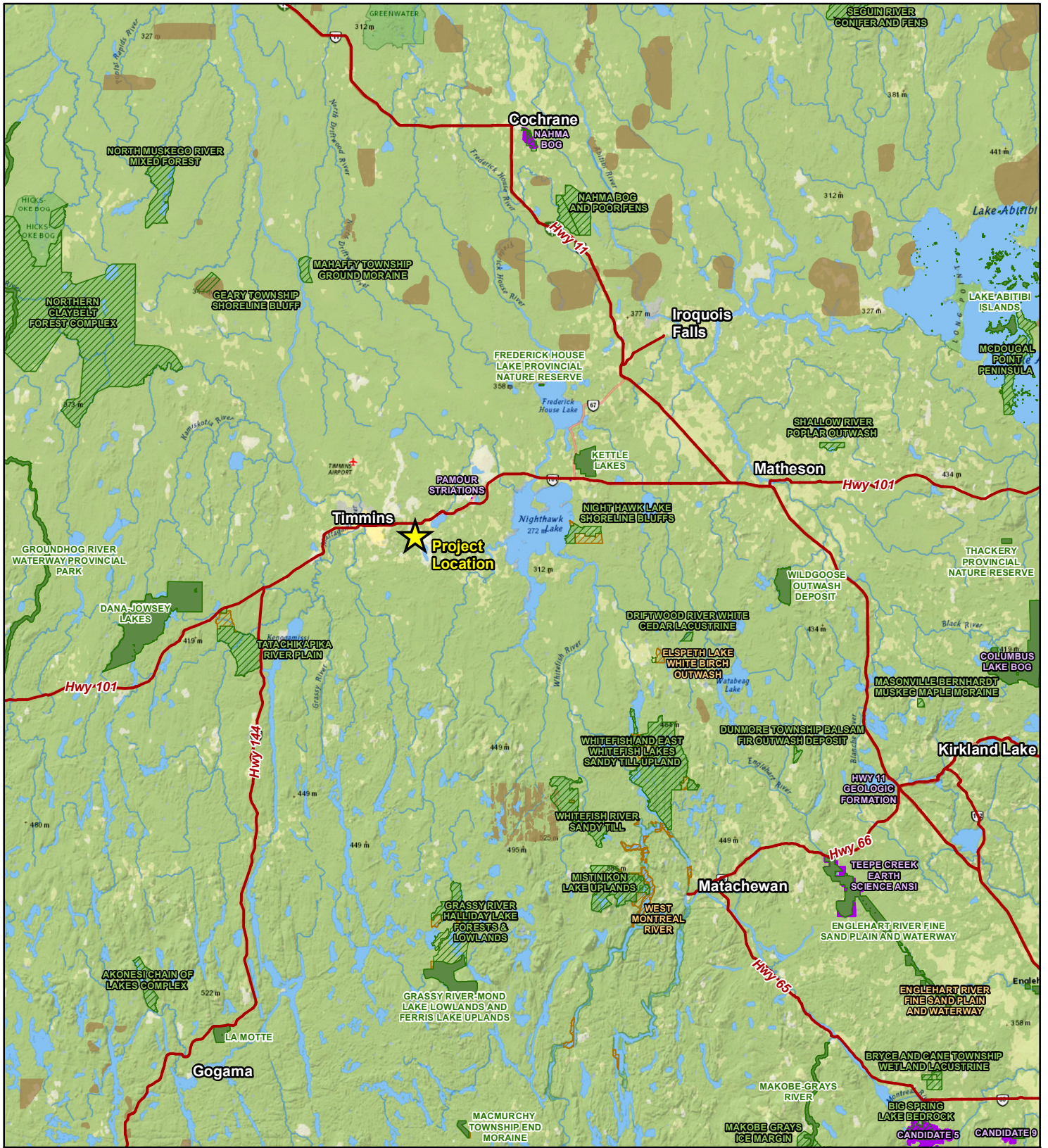
FIGURE: 3-7

SCALE: 1:50,000

DATE: July 2018

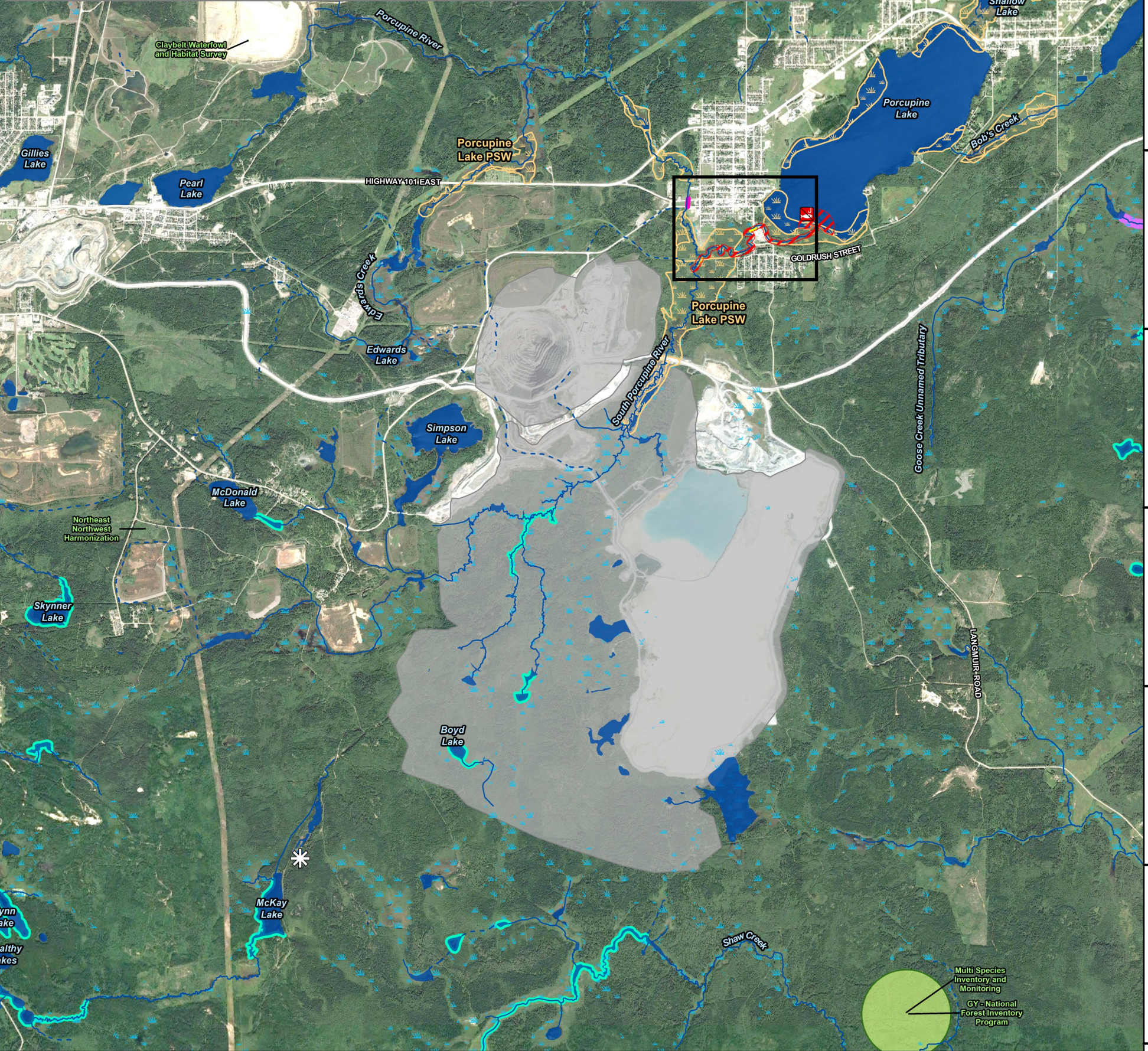
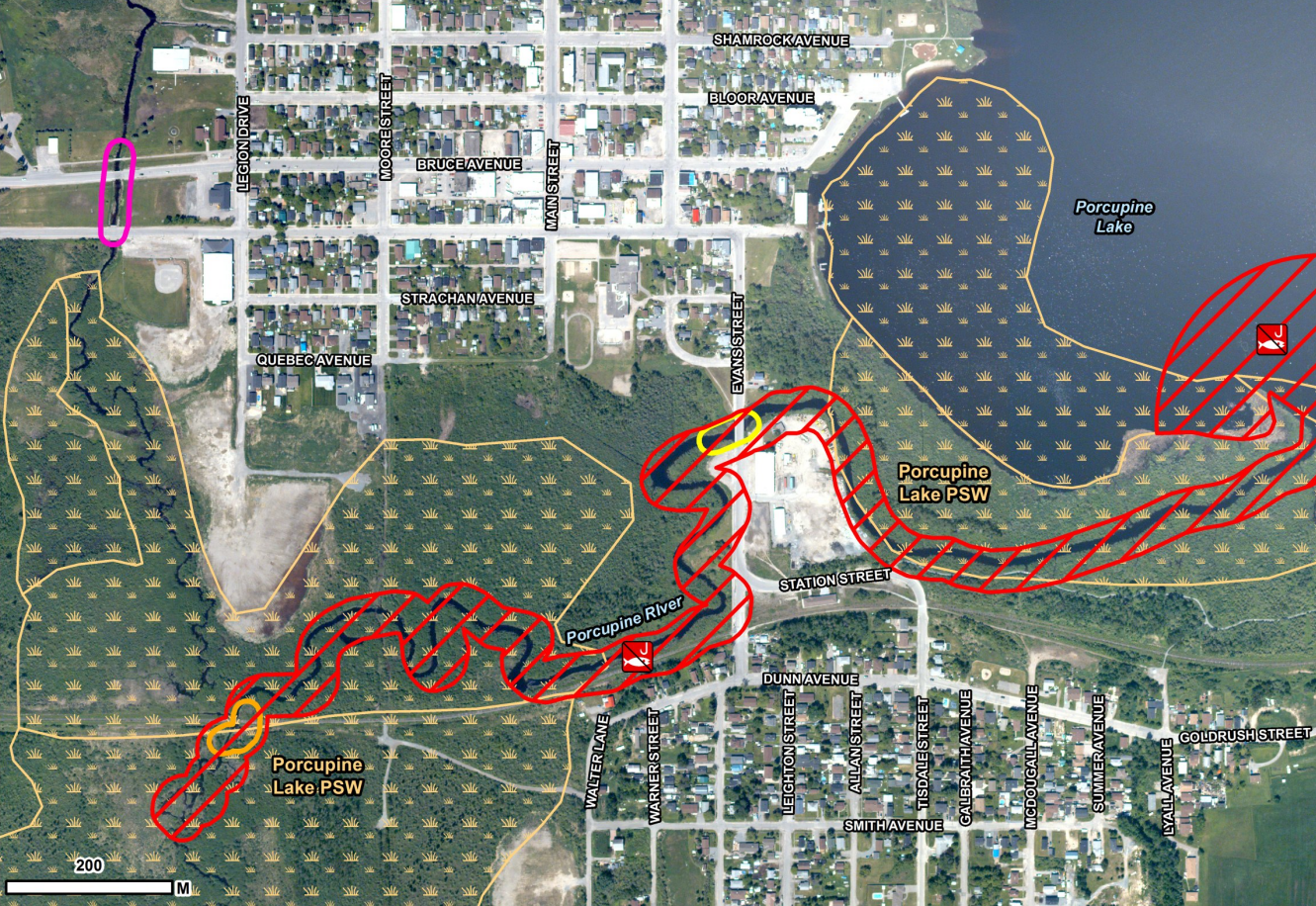
P:\2017\Projects\TC170506A_PGM_Century08_GIS\Project_Description\MXD_Maps\Fisheries and Fishing Area 3.mxd

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<p>LEGEND</p> <ul style="list-style-type: none"> Project Location Regional Highways Conservation Reserve Area Forest Reserve Area Provincial Park Area Area of Natural and Scientific Interest Moose Wintering Area 	<p>NOTES:</p> <ul style="list-style-type: none"> - Highway information extracted from National Road Network, Geogratis.ca - Background topographic map information extracted from ESRI Base Map Services - Additional park information and conservation reserve information extracted from Land Information Ontario, MNRF 	<p> GOLDCORP PORCUPINE GOLD MINES</p> <p> wood.</p> <p style="text-align: center;">CENTURY GOLD PROJECT</p>
<p>Datum: NAD83 Projection: UTM Zone 17N</p>	<p style="text-align: center;">Regional Protected Lands</p> <p>PROJECT N^o: TC170506A FIGURE: 3-8</p> <p>SCALE: 1:860,000 DATE: July 2018</p>	

ENLARGED AREA

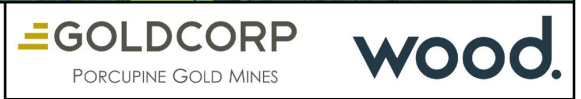


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LEGEND

- Unidentified Hawk / Owl Nest Site
- Fish Sanctuary (No Fishing April 1 to June 15)
- Walleye Staging Area
- Walleye Spawning Area
- White Sucker Spawning Area
- Research Plot
- Waterfowl Migration Corridor, Staging Area and Nursery
- Moose Aquatic Feeding Area
- Provincially Significant Wetland Complex
- Century Gold Project
- Intermittent Watercourse / Ditch
- Permanent Watercourse
- Waterbody
- Low-lying Area

NOTES:
 - Aerial image extracted from Google Earth, 2016.
 - Watercourses and waterbodies have been edited to reflect conditions in the aerial imagery.



CENTURY GOLD PROJECT

Local Protected Lands

Datum: NAD83
 Projection: UTM Zone 17N

PROJECT N^o: TC170506A **FIGURE: 3-9**

SCALE: 1:50,000 DATE: July 2018



4.0 FEDERAL INVOLVEMENT

4.1 Financial Support

There is no proposed or anticipated Federal financial support associated with the Century Gold Project development, operation, or reclamation and closure.

4.2 Use of Federal Lands

There is no Federal land required or proposed to be used to carry out the Century Gold Project.

4.3 Federal Permits, Licences or Authorizations Required

It is anticipated that the Century Gold Project will require:

- Authorization(s) for Serious Harm to Fish, pursuant to Section 35(2)(b) of the *Fisheries Act* related to the realignment of the South Porcupine River, and alterations to other tributaries and ponds not associated with mine waste deposition.

In addition, it is expected that the overprinting of waters frequented by fish by tailings and waste rock storage areas (or other deleterious material) may be necessary and will require Amendment(s) to Schedule 2 of the Metal and Diamond Mining Effluent Regulations, pursuant to the *Fisheries Act*.

Explosives transport, storage and use are anticipated will remain under the care and control of the explosive contractor over the construction, operation and closure phases of the Century Gold Project. The explosives contractor will obtain the necessary approval(s) under the *Explosives Act* directly for any explosives-related requirements for the Century Gold Project.

Please also see Section 1.6 and Table 1-1.

5.0 ENVIRONMENTAL EFFECTS

5.1 Physical and Biological Setting

5.1.1 Climate

The Century Gold Project is located in northeastern Ontario, in an area having long, cold winters and warm, relatively short, summers. Mean monthly temperature at the Porcupine Ontario Hydro climate station located approximately 2 km west of the Century Gold Project, ranged from a low of - 16.7 °C in January to a high of 18.6 °C in July based on 30-year Climate Normals for the period of 1981 to 2001 (ECCC 2017). Total annual precipitation at this same station averaged 865 millimetres (mm), with 555 mm falling as rain and 310 mm as snowfall. The 25-year wind rose for Timmins has a predominantly westerly wind direction, with an overall west-northwest vector.

5.1.2 Air Quality

The Century Gold Project is a redevelopment of the Dome Open Pit and development of a new, Century Processing Facility. Mining operations ceased at the Dome site at the end of 2017. The Dome Processing Plant will continue to operate on the site as a regional processing facility until such time as it is replaced by the Century Processing Facility. Accordingly, the ambient air quality for a large portion of the Century Gold Project site, is that of an operating industrial facility. The Dome Processing Plant has a valid Provincial Environmental Compliance Approval for air and noise emissions, with which it operates in compliance.

Ambient air quality will also be influenced by other anthropogenic sources and natural sources, such as traffic along Gold Mine Road, dust from other Timmins industry, pollen and fires (including wood burning stoves / fireplaces and natural fires). Long-range transport would be expected to be a source for the particulates, nitrogen dioxide and sulphur dioxide.

5.1.3 Sound and Vibration

The Century Gold Project is located within the City of Timmins limits, on the site of an operating industrial facility. The Dome Processing Plant operates in compliance with Provincial Environmental Compliance Approval for noise (and air) emissions.

The area surrounding the Century Gold Project is mixed use and characterized by natural areas, permanent homes and industrial / commercial operations. The area surrounding the Century Gold Project can be considered as a Class 2 area (an area having elements of both urban and rural settings) based on the MECP Environmental Noise Guideline (NPC 300), Noise Assessment Criteria for Stationary Sources and for Land Use Planning.

As a result of the Project being located at an operating mine and in a developed area there are existing sources of vibration in the area. Detailed vibration monitoring is completed for the Dome Mine and Hollinger Mine. Underground mining operations at the Dome Mine ceased December 2017, with open pit mining production ending in 2008.

5.1.4 Terrain and Geology

The topography in the Timmins area is dominated by its location at the transition of Precambrian Shield terrain to the south and southwest, and by flat-lying glaciolacustrine silt and clay plains to the north and east. There is an extensive glaciolacustrine sand plain lies south of Timmins that extends into the lower, southwest portion of the Project site area (Figure 5-1).

The natural local topography reaches a maximum of about 330 to 340 m above sea level (asl) in the areas west, south and east of the Century Gold Project, sloping to the northeast to the lower elevations present at the neighbourhood of South Porcupine and Porcupine Lake. Porcupine Lake has an elevation of approximately 277 m asl (Figure 5-2). The topography at the Century Gold Project strongly reflects its nature as a brownfield mine site. Local high elevations are associated with the mine stockpiles (up to approximately 370 m asl) and there is a low elevation at the base of the open pit (-25 m asl).

The Century Gold Project is located in the western part of the Abitibi Greenstone Belt within the Superior Province of the Canadian Precambrian Shield. The geology of the Timmins area is structurally complex, and includes several major fault zones and anticline / syncline systems, many of which control surface topographic expressions. Bedrock exposures are widespread locally, but often covered by glaciolacustrine silt, clay and sand plains.

Geochemistry investigations are ongoing to support engineering and inform environmental effects assessment for the Century Gold Project.

5.1.5 Hydrology

The eastern portion of Timmins where the Century Gold Project is located is drained by the Porcupine River and its minor tributaries. The Porcupine River flows into Porcupine Lake, a 276 ha waterbody, before continuing into Night Hawk Lake and the Frederick House River system. The Frederick House River system drains into Lake Abitibi, and northward into the Abitibi River which joins the Moose River and empties into James Bay (Figures 1-1, 3-6 and 3-7).

There is a Water Survey of Canada flow monitoring station on the Porcupine River, upstream of its confluence with Night Hawk Lake (Station 04MD004 Porcupine River at Hoyle). This survey station established in 1977 and active until 1994 (flow); and was re-established in 2007 and is currently operating (flow and level).

The monthly average flow rates in local watercourses (uncontrolled) is greatest in the spring, (April and May), coinciding with the snowmelt period. Lowest flows are recorded most typically during the mid-winter months (January through March), when precipitation is accumulated and held as snow and ice, and also occur in the mid- to late summer typically.

The Century Gold Project footprint drains either directly or indirectly to the South Porcupine River, or to the Porcupine River by means of the Edwards Creek (Figure 3-6). Both watercourses are in

the order of a metre width in the headwater and mid-reaches, except where flow is influenced by beaver dams or other obstacles causing ponding. The South Porcupine River meanders to the northeast from its headwaters, through a wetland area constrained by existing mining facilities, prior to flowing into the Porcupine River west of Porcupine Lake. The South Porcupine River originates southwest of the Dome Mine site. McDonald Lake and Simpson Lake are two of the more prominent waterbodies in the river headwaters, situated alongside Gold Mine Road. The area west of the Dome Processing Plant, including Edwards Lake, drains northward by means of an officially unnamed creek (known locally as Edwards Creek) into the Porcupine River, north of Highway 101. After the inflow from Edwards Creek, Porcupine River flows south-south east past the western edge of the neighbourhood of South Porcupine, before it receives the South Porcupine River inflow, and then flow east to Porcupine Lake.

Simpson Lake consists of two distinct basins separated by a 200 m long narrows, with a combined lake area of 38.7 ha, and mean measured depths of 9.8 m and 2.6 m. Both basins exhibit variable shoreline habitat types comprising exposed bedrock, wetlands and altered shoreline areas. A natural topographic divide separates Simpson Lake and Edwards Lake to the north. Edwards Lake is a smaller lake with area of approximately 5.9 ha, surrounded by a broad cattail wetland, with a maximum measured depth of 3.2 m.

The watersheds of the South Porcupine River and Porcupine River at their confluence just west of Porcupine Lake, measure 32.0 km² and 42.7 km², respectively.

5.1.6 Surface Water Quality

Extensive surface water quality sampling has been collected in the Century Gold Project area, as a result of ongoing monitoring for the Dome Mine operation (both background and effluent quality, including for Environmental Effects Monitoring). There is a considerable amount of multi-season data available to support the Century Gold Project design for the surrounding watercourses and waterbodies.

Much of the Porcupine River drainage basin upstream of Nighthawk Lake has been influenced by the development of the City of Timmins (the regional centre for northeastern Ontario); and past and present industrial activity, including mining (Figures 1-3, 2-1 and 3-2) and forestry. Gold and base metal, mining / processing / smelting activities in the local area date as far back as the early 1900's (Figure 1-3). There are a large number of mine waste storage areas that can be seen in satellite imagery shown in the Project Description figures. Some of the existing waterbodies are associated with historic tailings storage areas (Gillies Lake, Simpson Lake and Edwards Lake for example). As a result of the above activities, a number of key metals are elevated above natural background conditions in the drainage basis. Overall metal concentrations in the in the Porcupine River system appear to be improving with time, and particularly as historic sites have been actively reclaimed.

Water quality conditions in the South Porcupine River are generally similar to those of the Porcupine River (AMEC 2010), although Minnow identified that impacts from historical mining in the Upper Porcupine River basin were more evident in the South Porcupine River than Porcupine

River (Minnow 2013). Water quality at reference locations in South Porcupine River and the Edwards Creek is generally of good quality, although it is impaired from background. Several metals are found in concentrations above the Provincial Water Quality Objectives and Canadian Water Quality Guidelines for the protection of aquatic life, which can be attributed to historic and existing mining operations (Minnow 2017), as well as natural metal-rich rock in the area.

5.1.7 Aquatic Environment

The small watercourses present at the Century Gold Project are shallow, and slow moving, often constrained by significant beaver activity. Accordingly, the small watercourses and shallow lakes / ponds provide a limited seasonal habitat for cool to warm water species. Simpson Lake is a slightly deeper waterbody and provides a year-round habitat for a cool to warm water fish community (Hasnain 2010). Baseline investigations are ongoing to characterize the watercourse / waterbodies near the Century Gold Project. Table 5-1 provides a summary of the fish species identified in field investigations to date in various unnamed watercourses / waterbodies near the Century Gold Project site, as well as the South Porcupine River and locally named, Edwards Lake and Simpson Lake. Investigation locations and unnamed watercourse / waterbody identifiers are provided in Figure 5-3.

The South Porcupine River hosts a fish community consisting of Brook Stickleback, Finescale Dace, Blacknose Shiner, Brassy Minnow, Common Shiner, Creek Chub, Johnny Darter, Lake Chub, Northern Redbelly Dace, Pearl Dace and White Sucker (Minnow 2017). Past Environmental Effects Monitoring study results for the Dome Mine have consistently indicated that there are low populations of fish and benthic organisms in the South Porcupine River, attributed to aquatic habitat limitations and upstream contaminant sources (Minnow 2005, 2008, 2011 and 2014).

The Porcupine River near the Dome Mine supports a variety of coarse and forage fish including Brook Stickleback, Mottled Sculpin, Pearl Dace, Yellow Perch and White Sucker. The lower reaches of the river west of Porcupine Lake support a fish community of Northern Pike, Walleye, White Sucker and Yellow Perch, likely influenced by the proximity of the lake (AMEC 2010).

A walleye population was re-established in the Porcupine Lake through adult fish transfer from Lake Abitibi in 1986. A Provincial Fish (Walleye) Sanctuary has been established on the Porcupine River upstream of Porcupine Lake (Figures 3-7 and 3-9). The sanctuary is maintained and periodically enhanced by the local community with the MNRF. The sanctuary restricts fishing from April 1 to June 15.

There are no known Species at Risk fish or aquatic plant species in the vicinity of the Century Gold Project.

5.1.8 Hydrogeology

The hydrogeologic system at the Century Gold Project site consists of bedrock with various degrees of fracturing or faulting, overlain by a combination of sands, dense till, varved silts and clays, and organic soils and peat. Groundwater flow is expected to occur mostly in the sands which will also serve as a reservoir of groundwater, with only relatively limited flow through fractures in the bedrock. The varved silts and clays present particularly in the lower topographic areas, are relatively impermeable and may act as an aquitard (Golder 2018a).

The regional groundwater flow direction is generally to the north and west. The Century Gold Project is however, located in an area of past and current, underground and open pit mining (Figure 1-3). As a result, the local hydrogeology has been altered from the natural condition. Ongoing dewatering of the Dome underground mine workings (and the interconnected Dome Open Pit, and the historic Paymaster Mine and Preston Mine underground workings) has depressed the local groundwater table. While the local groundwater flow continues to be toward the local watercourses and Porcupine Lake overall, the local groundwater levels are controlled by: aquifer depression related to the Dome Mine dewatering, shallow bedrock topography due to its relatively low permeability, and the TMA and waste rock storage areas which act groundwater recharge zones (Golder 2018a).

Goldcorp intends to allow the existing Dome underground workings to re-flood to within approximately 50 m of the base of the Century Open Pit (depth to be confirmed during ongoing mine engineering). This natural flooding is expected to be completed by 2029.

5.1.9 Vegetation

There is an extensive history of mining in the Timmins area and large portions of the lands within or adjacent to Century Gold Project are active or reclaimed mineral lands. Cultural thickets are regenerating areas previously cleared or disturbed and are often dominated by Trembling Aspen, Balsam Poplar, White Birch and Willow species, together with a variety of shrub and ground species. Historic tailings areas exhibit varying states of vegetation re-growth from higher density grass / herbaceous community development, to extensive areas of bare tailings, with or without shrub and sapling cover.

The terrestrial environment in undeveloped / undisturbed areas is largely comprised of mixed and coniferous forest and wetland communities. Commonly occurring tree species are boreal and include: Black Spruce, Jack Pine, Trembling Aspen, Balsam Fir, Tamarack, White Birch and Balsam Poplar. Riparian and low-lying areas consist of marsh communities dominated by wide-leaved cattail. Pondweed, Water Plantain, Broadleaf Arrowhead and Yellow Pond-lily are also locally present.

No rare plant species or communities have been identified to date in the Century Gold Project footprint.

5.1.10 Wildlife

Birds

Data from the Atlas of Breeding Birds in Ontario (Cadman et al. 2007) describes 58 species as possible, probable or confirmed breeders in the vicinity of the Century Gold Project. A total of 78 bird species were recorded within during the 2017 standardized point count surveys in the Century Gold Project study area, of which 45 had not previously been identified as present in the study area (Wood 2018). All of the species recorded during the standardized morning bird surveys are considered common, aside from Barn Swallow. Four species of marsh birds (American Bittern, Virginia Rail, Sora and Pied-billed Grebe) were recorded during 2017 marsh bird playback surveys.

A number of avian Species at Risk were observed during preliminary environmental baseline surveys conducted in 2017 and 2018 (to date): Bank Swallow (Provincial and Federal Threatened), Barn Swallow (Provincial Threatened), Bald Eagle (Provincial Special Concern), Canada Warbler (Provincial Special Concern / Federal Threatened), Common Nighthawk (Provincial Special Concern / Federal Threatened) and Short-eared Owl (Provincial and Federal Special Concern). Mitigation measures will be developed and implemented to align with regulatory requirements, consultation, and Project planning.

Mammals

The review of the Atlas of the Mammals of Ontario indicated that 43 mammal species may occur in the general vicinity of the study area (Dobbyn 1994). Mammal species recorded within the Century Gold Project study area are typical of the region based on available published information. Visual sightings, evidence (e.g., scat, tracks and vocalizations) and bat acoustic detection surveys during 2017 revealed evidence of eight mammal species occurring within the Century Gold Project area: Little Brown Myotis (bat), Silver-haired bat, Hoary Bat, Red Squirrel, American Black Bear, Coyote, Red Fox and Moose. The majority of the other species listed in the Atlas of the Mammals of Ontario as potentially occurring within the study area are small and difficult to detect. Little Brown Myotis was the only mammal Species at Risk (Endangered both Provincially and Federally) identified during the surveys to date.

Amphibians and Reptiles

Based on range maps provided in the Ontario Reptile and Amphibian Atlas (Ontario Nature 2017), the following amphibian and reptile species were identified as potentially occurring within the vicinity of the Century Gold Project: Blue-spotted Salamander, Jefferson / Blue-spotted Salamander Complex, American Toad, Boreal Chorus Frog, Spring Peeper, Green Frog, Wood Frog, Northern Leopard Frog, Mink Frog and Eastern Gartersnake. Several Gartersnake were observed incidentally during the 2017 field investigations at the Century Gold Project. There are no known reptile or amphibian Species at Risk present at the Century Gold Project site and immediate environs, although baseline investigations are ongoing. Blanding's Turtle (Federally and Provincially Threatened) may also be present in the Simpson Lake area based on information

recently received from the MNRF, which will be integrated into future desktop and field investigations.

5.1.11 Significant Natural Areas

As shown in Figure 3-8, the Century Gold Project is located distant from any regional protected lands such as Provincial Parks, Conservation Reserve Areas and Areas of Natural and Scientific Interest.

The Porcupine Lake Wetland Complex contains 325.8 ha of marsh and swamp habitats and is made up of five wetlands situated along Porcupine Lake, Porcupine River and South Porcupine River (Riordan 1992). A small portion of the Provincially Significant Wetland Complex is present on the Dome Mine site, between the East Waste Rock Storage Area / Ore Stockpiles and the South Waste Rock Storage Area bordering the South Porcupine River (Figure 3-9). The Porcupine Lake Wetland Complex was classified as a Class 1 Provincially Significant Wetland in 1992 by the Mattagami Region Conservation Authority (Riordan 1992; HBT AGRA 1994). The evaluation process considered the biological, social, hydrological and special features of the wetland. It is considered a wetland complex as roads, railway tracks and urban areas have divided the wetland into separate areas although considered to be hydrologically and ecologically similar (Riordan 1992; HBT AGRA 1994). This wetland is dominated by cattails with other aquatic vegetation common to the region such as Burr-reed, Pondweed, Yellow Pond Lily and Smartweed (HBT AGRA 1994).

The following other local natural heritage areas have been identified (Figure 3-9):

- Areas of aquatic feeding habitat for moose;
- A walleye staging area near Porcupine Lake; and
- Two fish spawning areas (MNR 2000; MNRF 2017a,b).

5.2 Key Environmental Aspects

Table 5-2 contains a matrix identifying potential interactions between Project components and the environment. A preliminary assessment of the potential environmental effects of the Century Gold Project from construction, operation and closure phases of the Century Gold Project is provided in Table 5-3 to assist the CEA Agency in determining the need for an EIS and the scope of the EIS if determined to be required. These effects are additional to any effect associated with the existing Dome Mine, and are subject to ongoing engineering design and environmental investigations. A comprehensive assessment of environmental effects along proposed mitigation measures to reduce potential impacts will be provided in the EIS.

The Province of Ontario has stringent regulatory requirements for emissions, discharges and waste management. Direct environmental effects from the Century Gold Project are anticipated to be limited primarily to the Project footprint, and the immediate area / receiving waterbody of site effluent. No effects on Porcupine Lake are expected.

The Century Gold Project will comply with all regulatory requirements, as well as approvals obtained from the Federal and Provincial governments. While meeting regulatory requirements, there is the potential for noise and dust emissions from the Century Gold Project activities to disturb or bother others in the immediate area. This effect will be assessed as part of the EIS.

5.3 Potential for Transboundary Effects

The Century Gold Project is located 127 km west of the Ontario – Québec border, and 323 km northeast of the Canada – United States border. No transboundary air or water effects are predicted for the Century Gold Project for the following reasons:

- All air emissions and effluent from the Century Gold Project will need to meet the strict Ontario environmental regulatory requirements at the property boundary and effluent discharge location.
- The Century Gold Project is located within the Mattagami River watershed, which is part of the Arctic watershed (and flows into James Bay without crossing the Québec or United States border).
- A preliminary assessment of potential greenhouse gas emissions has estimated emissions to be a maximum of approximately 180,000 tonnes of carbon dioxide equivalents per year, representing an increase of approximately 0.1% of the current annual emissions for Ontario. This low contribution is predicted to not result in a transboundary effect (Golder 2018b).

5.4 Potential Changes Related to Select Federal Legislation

5.4.1 Fisheries Act

Fish and Fish Habitat

A variety of fish species and fish habitat are present within the local watercourses and waterbodies, within and downstream of the Century Gold Project. Anticipated direct and indirect effects of the Project on fish and fish habitat based on the current preliminary design, are described briefly as follows (further detail is provided in Table 5-4):

- Two watercourse diversions are proposed to be able to direct natural drainage from the surrounding area around the Century Gold Project footprint. In-water work will be required to establish the diversions which will result in a temporary direct effect.
- Capture and management of site runoff from the Century Gold Project operational area for environmental protection purposes, will alter the local flow regime which will result in direct and indirect effects on fish and fish habitat.

- A portion of the mineral wastes associated with the Century Gold Project is expected to overprint waters frequented by fish, pending regulatory approvals. This will result in direct fish habitat loss for which compensation is anticipated to be required.

Treated, contact water that meets regulatory requirements will be discharged to the South Porcupine River (which currently receives effluent from the Dome Mine), or potentially to the diversion system. Direct and indirect effects to fish and fish habitat from the Century Gold Project effluent discharges are not expected. The Century Gold Project is not expected to require any changes to the direct water takings from local waterbodies or watercourses already approved for the Dome Mine based on the current engineering design. Dewatering of the Century Open Pit is also not anticipated to have an effect on local flows or surface water levels based on the current site design.

Marine Plants

There are no marine environments close to the Century Gold Project (or existing infrastructure / facilities to be used) and no effects to marine plants are possible.

5.4.2 Migratory Birds Convention Act

A direct effect on migratory birds is anticipated from habitat removal associated with development of the Century Gold Project. While the existing Dome Mine operations area has already been disturbed, the Century Gold Project footprint will require lands that are currently undisturbed terrestrial habitat.

Clearing of vegetation and other similar work activities in migratory bird habitat are proposed to be completed outside of the active breeding season, generally avoiding the period of mid-April to the end of August. When this is not feasible, a nest survey will be conducted by a qualified avian biologist immediately prior to commencement of the work to identify and locate active nests of species covered by the *Migratory Bird Convention Act* for avoidance.

5.5 Potential Changes Related to Federal Lands

There are no Federal lands in the vicinity of the Century Gold Project. The closest Federal, non-Reserve lands are listed in Table 3-1. No changes to Federal lands inside or outside of Ontario, nor inside or outside of Canada, are expected as a result of the Century Gold Project, due to the distance of the Project from the United States and Québec borders.

5.6 Potential Effects on Indigenous Peoples

The Century Gold Project is located within the boundaries of Treaty No. 9 (Figure 3-4). The majority of the potential environmental effects related to the Century Gold Project will be confined to the site itself (and on brownfield lands) and the immediate local environment. There are no direct or indirect environmental effects expected from the Project on any First Nation Reserve due to the considerable distance from the site (the closest Reserve is located more than 50 km away).

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Based on preliminary assessments and current knowledge of the area, it is expected that the Project is located within the area of traditional land use of Mattagami First Nation, Wahgoshig First Nation, Matachewan First Nation and Flying Post First Nation. The Project is located within the Métis Nation of Ontario Region 3 harvesting areas. Ongoing discussions with the various Indigenous communities will outline their historical or current use of the Project area.

In consultation with the RDA partners (December 2017 to January 2018), Goldcorp has confirmed that there is limited documented traditional knowledge and traditional land use within and surrounding the Project area. Through the RDA partnership, a traditional knowledge study has been initiated for the Century Gold Project. This study, with input from the RDA communities and Indigenous experts, looks to determine which, if any, traditional territory may be impacted by the Project. There are no known cultural sites, including archaeological sites that will be affected by the Project. Consultation with local community members and Indigenous peoples regarding important historical and current land use will remain ongoing.

Based on available information, preliminary Project interactions with the Indigenous Peoples have been identified in Table 5-2. The Project may have a potential effect to non-reserve First Nation lands and use of lands for traditional purposes due to construction and mining operations and the increased footprint of the Project. Other effects may include: air emission, sound emissions; and effluent discharges (resulting from the processing facility, general site runoff, waste rock storage areas and TMA). These may have an indirect impact on local biodiversity including aquatics, wildlife and vegetation; and water flows and quality. The ability for hunting, trapping, fishing, and gathering subsistence plants and medicines may be affected by land exclusion.

In order to minimize these effects, Goldcorp supports the ability for Indigenous peoples to access portions of lands held by Goldcorp within the Century Gold Project footprint prior to development as can be conducted safely, and outside of the Century Gold Project footprint. This will allow the gathering of berries or other vegetation for medicinal or spiritual purposes, as well as access for cultural and ceremonial purposes, provided it can be done safely. Environmental baseline studies are being conducted to evaluate the current conditions and allow determination of potential effects of the Century Gold Project. Subsequently, measures will be developed and implemented to mitigate any risks identified pending the results from the environmental baseline and traditional knowledge studies.

Early discussions will also be held with the communities to evaluate the proposed final land use and reclamation objectives for the site while taking into consideration Indigenous knowledge.

Overall, the Project is not expected to have a negative effect directly or indirectly on Indigenous peoples related to such aspects as: fisheries, outfitting, guiding, cultural tourism or other Indigenous businesses. Ongoing engagement will inform the inclusion of these interactions within the EA process.

Goldcorp will continue to engage Indigenous communities to employ local, qualified workers to the greatest extent practical through all stages of the construction, operation and closure of the mine. Employment and contracting opportunities have been and will continue to be discussed

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with local Indigenous communities to enhance community participation in employment and contracting opportunities.

5.7 Cumulative Effects

The *Canadian Environmental Assessment Act, 2012* requires that the EA of a designated project take into account cumulative environmental effects that are likely to result from the designated project in combination with the environmental effects of other physical activities that have been or will be carried out.

As part of the EA, a review will be completed to determine if there are other physical activities that will overlap with the residual environmental effects of the Century Gold Project.

As part of the optimization of the Century Gold Project preliminary design, Goldcorp is including optimization within the family of PGM properties to consider historic legacy issues in the area, as well as meet proposed end land use objectives for Goldcorp's current operations.

Table 5-1: Preliminary Aquatic Sampling Results

Name ¹	Number (see Figure 5-3)	Blacknose Shiner	Brassy Minnow	Brook Stickleback	Brown Bullhead	Common Shiner	Creek Chub	Fathead Minnow	Finescale Dace	Iowa Darter	Johnny Darter	Lake Chub	Northern Pike	Northern Redbelly Dace	Pearl Dace	White Sucker	Yellow Perch
Year Sampled: 2016																	
South Porcupine River and Immediate Unnamed Tributaries / Ponds	25		X	X		X	X		X		X	X		X	X	X	
	47		X	X		X	X		X		X	X		X	X	X	
	26		X	X		X	X		X		X	X		X	X	X	
	48	X	X	X		X	X		X		X	X		X	X	X	
	49	X	X	X		X	X		X		X	X		X	X	X	
	50	X	X	X		X	X		X		X	X		X	X	X	
	28	X	X	X		X	X		X		X	X		X	X	X	
Ponds	52	X	X	X		X	X		X		X	X		X	X	X	
	53	X	X	X		X	X		X		X	X		X	X	X	
Year Sampled: 2017																	
Simpson Lake	29				X								X				
	9				X								X				
Edwards Lake	30			X										X	X		
Boyd Lake	2			X				X	X					X			
Unnamed	3			X				X	X					X			
Unnamed	4			X				X	X								
Unnamed	5			X										X			
Unnamed	6			X										X			
South Porcupine River and Immediate Unnamed Tributaries / Ponds	12		X	X				X	X					X			
	13		X	X				X	X					X			
	14			X					X					X			
	18		X	X				X	X					X			
	19		X	X				X	X					X	X		
	20		X	X				X	X					X	X		
	21		X	X				X	X					X	X		
Year Sampled: 2018 (results available to date reported below)																	
Simpson Lake	29	X	X			X				X					X		
	9	X	X			X				X					X		
Unnamed	62		X	X				X	X	X				X	X		
Unnamed	63		X	X				X	X	X				X	X		
South Porcupine River and Immediate Unnamed Tributaries / Ponds	8			X	X				X	X							X
	36			X	X					X							X
	45			X	X				X	X							X
	54				X												
	55			X	X				X								
	56				X												
	60				X												
66			X	X				X	X	X						X	
Goose Creek Unnamed Tributary / Ponds	34				X				X	X							
	35			X	X				X	X							
	62			X	X				X	X		X					
	63			X	X				X	X		X					
	65			X	X				X	X							

Note: ¹ Local names or "Unnamed" has been used in the absence of official names for local watercourse / waterbodies. Where present, directly inline ponds have been named according to the watercourse if relevant.

Table 5-2: Preliminary Environment Interaction Matrix

	PHYSICAL											BIOPHYSICAL						HUMAN ENVIRONMENT			
	Atmospheric Environment				Groundwater		Surface Water		Terrestrial			Aquatic Biology		Terrestrial Environment			SAR	General Public and Indigenous Interest		Indigenous Interest	
	Air Quality	Noise	Greenhouse Gas Emissions	Climate Change	Water Quality	Groundwater Flows and Water Table Elevation	Water Quality	Surface Water Flows or Water Level	Geology	Other Geomorphology Processes	Vibration	Aquatic Biota	Aquatic Habitat	Vegetation Communities / Habitat	Wildlife Species	Migratory Birds	Species at Risk	Land and Resource Use	Human Health	Archaeology / Palaeontology	Traditional Land and Resource Use
Site clearing and site preparation																					
Mining activities including dewatering																					
Waste rock and overburden management																					
Ore processing																					
Process plant effluent / tailings management																					
Effluent discharge																					
Watercourse diversions and fish habitat compensation / offsetting																					
Project infrastructure (roads, drainage etc.)																					
Power supply and infrastructure																					
Fuel and chemicals management																					
Domestic sewage treatment and disposal																					
Solid waste management including hazardous materials																					

Note: This spreadsheet is based on a preliminary scan of the Project components and environmental components interaction, and may be modified as details and information are considered during the EA process.

Table 5-3: Preliminary Assessment of Potential Environmental Effects

Environmental Component	Potential Effect (Preliminary) ¹
Air quality	Air emissions from the Century Gold Project have the potential to generate dust or products of petroleum hydrocarbon combustion and ore processing that could potentially have a localized effect on plant and animal health. Provincial regulatory requirements will be met for emissions on site and air quality at the property boundary.
Noise and vibration	Noise emissions and vibration from the Century Gold Project have the potential to disturb other area users. Provincial regulatory criteria will be met.
Greenhouse gases	Greenhouse gases associated with Century Gold Project have a very minor potential to contribute to global carbon dioxide emissions and associated climate change.
Ambient light	Operation of an industrial facility will require provision of continuous localized lighting to ensure effective operations and the safety of workers and others. This may result in an increase in the ambient light at the Project and a localized glow off site similar to that of current Dome operations.
Watercourses / waterbodies	Development of the Century Gold Project will result in the overprinting of a number of watercourses / waterbodies. This is anticipated to result in change to flow and/or water levels (Table 5-4). Effluent from the Century Gold Project will be treated to meet Federal and Provincial regulatory requirements.
Aquatic habitat and species	The Century Gold Project is anticipated to have direct and indirect effect on fish and fish habitat (Table 5-4).
Groundwater system	Mine dewatering will maintain the local aquifer at the base of the Century Open Pit (closer to ground surface than its current level with the Dome underground mine workings). Local watercourses are not anticipated to be affected by dewatering. Groundwater quality maybe locally affected by the Century Gold Project.
Terrestrial habitat	Century Gold Project development will displace terrestrial habitat outside the Dome Mine operations area. As the displacement is generally contiguous based on the proposed site plan, there are no known terrestrial habitat linkages that will be affected.
Wildlife and migratory birds	Project development will displace existing terrestrial habitat, some of which is relatively undisturbed.
Species at Risk	Century Gold Project development will displace existing terrestrial habitat. There is the potential that a bat Species at Risk and turtle Species at Risk (if present) may be affected.
Hunting, fishing and tourism	Limited effect as the Century Gold Project is to be located on an active mine site where access is controlled / restricted for safety of workers and general public.
Indigenous / public health and safety (air emissions, water quality, socio-economics)	All Federal and Provincial regulatory requirements will be met. No negative effect expected on Reserve lands. The Century Gold Project will provide a positive socio-economic effect, in providing employment and commercial opportunities.
Current traditional use of lands and resources	The Project may have a potential effect on the use of lands for traditional purposes due to construction and mining operations, and the increased mining footprint.
Structures, sites or objects ²	No structures, sites or objects of historic, archaeological or architectural significance are known present. No sites of paleontological significance are known to be present and no effect is anticipated.

Notes:

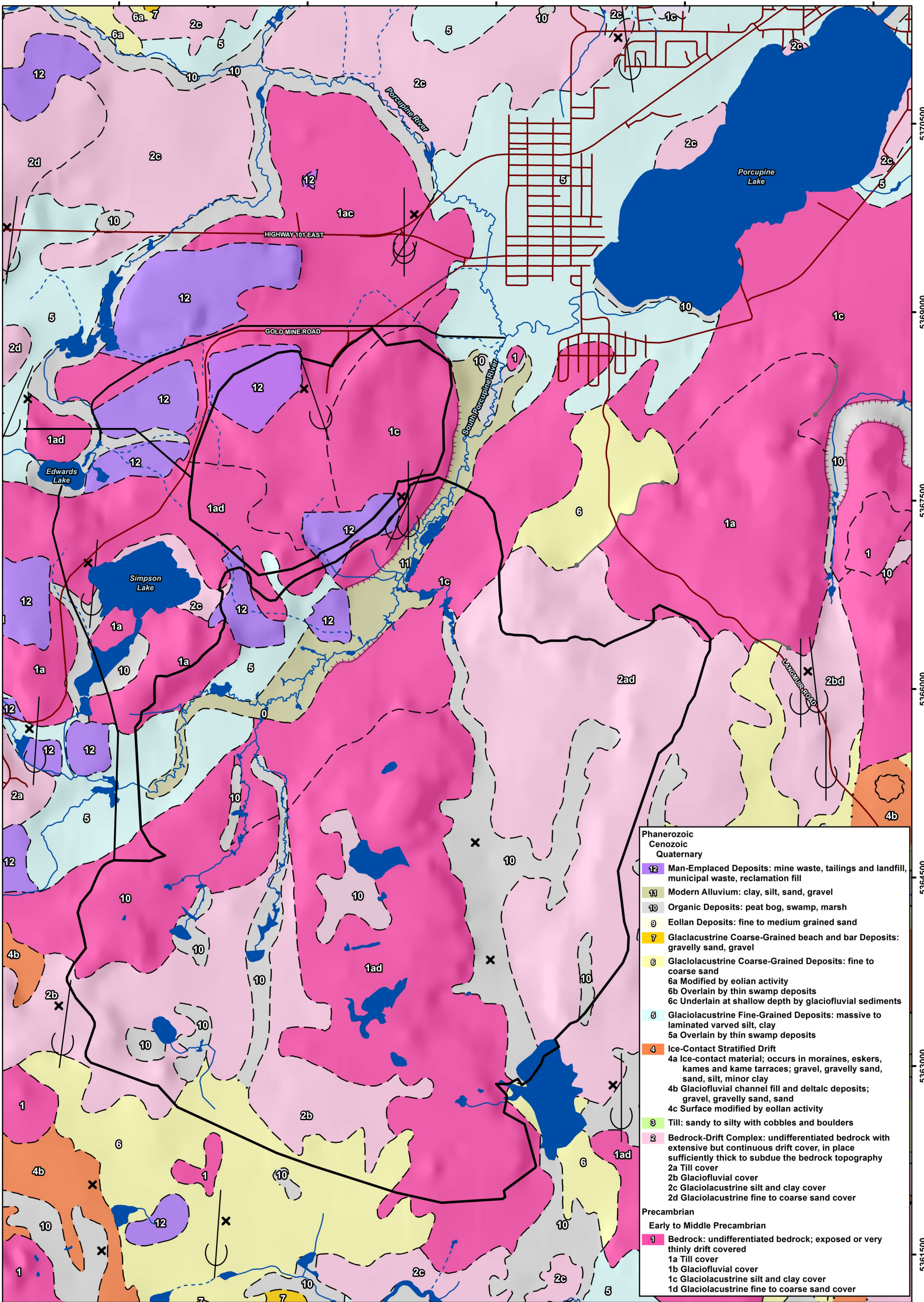
- ¹ Effect described is additional to any effect associated with the existing Dome Mine, and subject to ongoing engineering design and environmental investigations.
- ² Structures, sites or objects of historic, archaeological, architectural or paleontological significance.

Table 5-4: Preliminary Summary of Potential Changes to Waterbodies / Watercourses

Water Body ¹	Potential Change	Potential for Changes related to Fish and Fish Habitat
South Porcupine River (upstream of Project footprint)	<ul style="list-style-type: none"> Headwater areas diverted around Century Gold Project footprint, remaining in same watershed (Porcupine River) 	Yes
South Porcupine River (within Project footprint)	<ul style="list-style-type: none"> Covered (overprinted) by Century Gold Project footprint 	Yes
South Porcupine River (downstream of Project footprint)	<ul style="list-style-type: none"> Hydrology affected (flow, water level) downstream of Century Gold Project footprint Water quality potentially affected 	Yes
Edwards Creek	<ul style="list-style-type: none"> Flow enhanced by South Diversion North Diversion proposed at a conceptual level to bypass excess flow 	Yes
Simpson Lake	<ul style="list-style-type: none"> Lake outlet changed; outflow re-routed into Edwards Creek May require removal of a portion of the south basin to ensure gravity flow within the South Diversion Lake hydrology affected (water levels, residence time, circulation) 	Yes
Edwards Lake	<ul style="list-style-type: none"> Lake hydrology affected (water level, residence time, circulation) due to South Diversion 	Yes
Other Unnamed Ponds / Tributaries	<ul style="list-style-type: none"> Overprinted (within Century Gold Project footprint) Hydrology may be affected (water level) if outside but close to Century Gold Project footprint due to capture of part of the headwater area (such as by the TMA West Cell) 	Yes Minor
Porcupine River (upstream of South Porcupine River inflow)	<ul style="list-style-type: none"> Hydrology may be affected (flow, water level) Water quality potentially affected 	Minor
Porcupine River (downstream of South Porcupine River inflow)	<ul style="list-style-type: none"> Hydrology may be affected (flow, water level) Water quality potentially affected 	Yes
Porcupine Lake	<ul style="list-style-type: none"> Negligible effect on lake water levels Negligible effect on lake water quality 	Negligible
Porcupine River (downstream of Porcupine Lake)	<ul style="list-style-type: none"> No effect on river flow No effect on river quality 	No

Note:

¹ Local names or “Unnamed” has been used in the absence of official names for local watercourse / waterbodies.



Phanerozoic	
Cenozoic	
Quaternary	
12	Man-Emplaced Deposits: mine waste, tailings and landfill, municipal waste, reclamation fill
11	Modern Alluvium: clay, silt, sand, gravel
10	Organic Deposits: peat bog, swamp, marsh
9	Eolian Deposits: fine to medium grained sand
7	Glaciolacustrine Coarse-Grained beach and bar Deposits: gravelly sand, gravel
6	Glaciolacustrine Coarse-Grained Deposits: fine to coarse sand
6a	Modified by eolian activity
6b	Overlain by thin swamp deposits
6c	Underlain at shallow depth by glaciofluvial sediments
8	Glaciolacustrine Fine-Grained Deposits: massive to laminated varved silt, clay
5a	Overlain by thin swamp deposits
4	Ice-Contact Stratified Drift
4a	Ice-contact material; occurs in moraines, eskers, kames and kame terraces; gravel, gravelly sand, sand, silt, minor clay
4b	Glaciofluvial channel fill and deltaic deposits; gravel, gravelly sand, sand
4c	Surface modified by eolian activity
3	Till: sandy to silty with cobbles and boulders
2	Bedrock-Drift Complex: undifferentiated bedrock with extensive but continuous drift cover, in place sufficiently thick to subdue the bedrock topography
2a	Till cover
2b	Glaciofluvial cover
2c	Glaciolacustrine silt and clay cover
2d	Glaciolacustrine fine to coarse sand cover
Precambrian	
Early to Middle Precambrian	
1	Bedrock: undifferentiated bedrock; exposed or very thinly drift covered
1a	Till cover
1b	Glaciofluvial cover
1c	Glaciolacustrine silt and clay cover
1d	Glaciolacustrine fine to coarse sand cover

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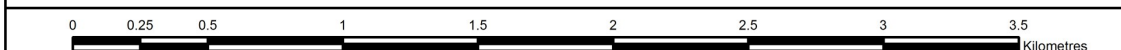
LEGEND

Century Gold Project	Geological Boundary (Observed or Interpreted)	Ice Contact Slope
Roads	Glaciolacustrine Wash Limit or Abandoned Shoreline	Small Bedrock Outcrop
Intermittent Watercourse / Ditch	Beach Ridge or Nearshore Bar	Glacial Striae
Permanent Watercourse	Geological Boundary (Gradational)	Fluvial Terrace
Waterbody	Esker	

NOTES:
 - Surficial geology information extracted from Geology Ontario.
 - Watercourses and waterbodies have been edited to reflect conditions in 2016 aerial imagery.

Datum: NAD83
 Projection: UTM Zone 17N

 PORCUPINE GOLD MINES	
CENTURY GOLD PROJECT	
Surficial Geology	
PROJECT N°: TC170506A	FIGURE: 5-1
SCALE: 1:28,000	DATE: July 2018



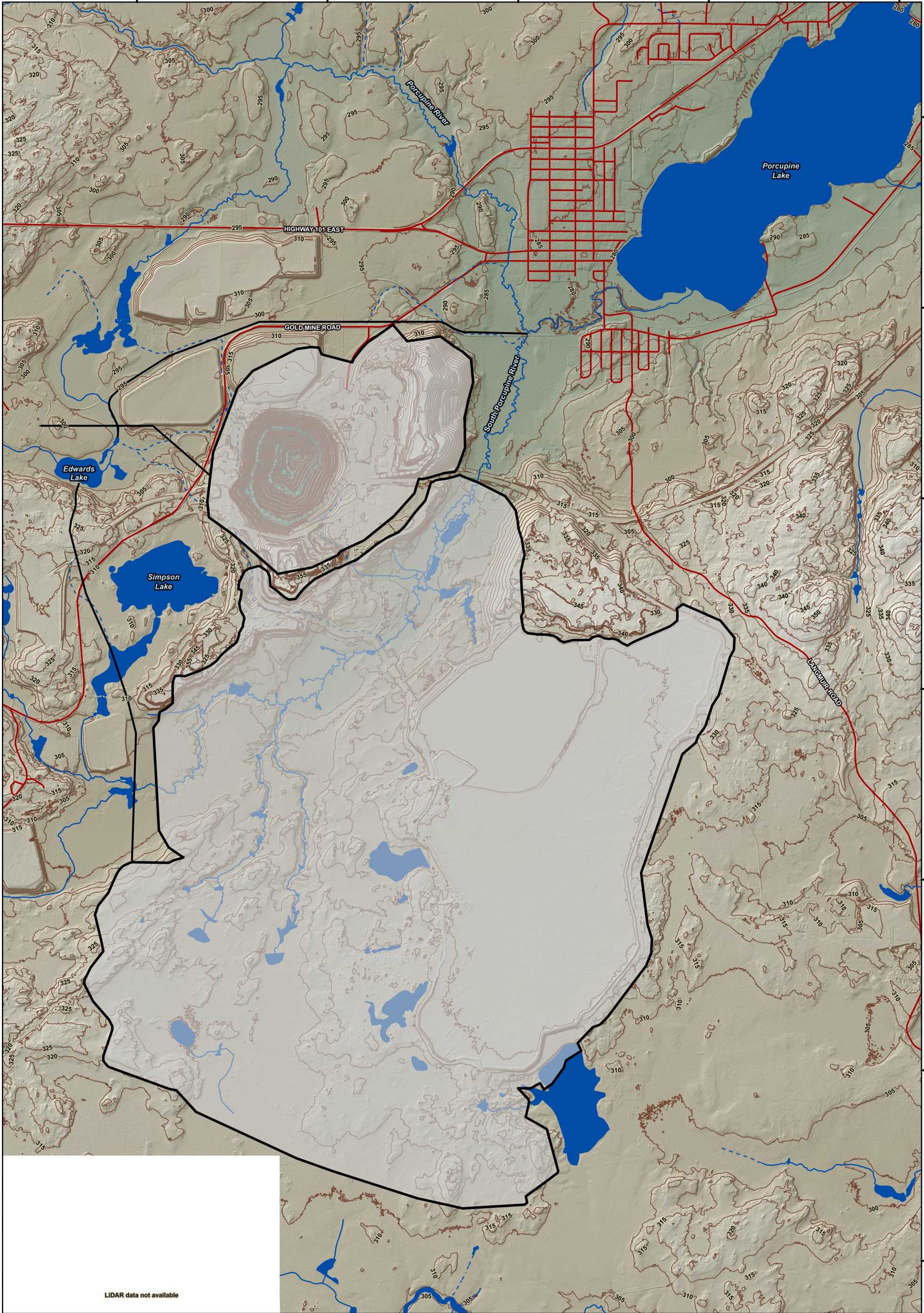
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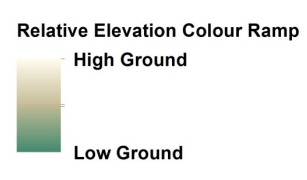


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LEGEND

- Century Gold Project
- Roads
- Contours (5 metre intervals)
- Intermittent Watercourse / Ditch
- Permanent Watercourse
- Waterbody



NOTES:
 - Watercourses and waterbodies have been edited to reflect conditions in 2016 aerial imagery.
 - Elevation information extracted from 2006 and 2015 LIDAR.

GOLDCORP **wood.**
 PORCUPINE GOLD MINES

CENTURY GOLD PROJECT

Local Topography

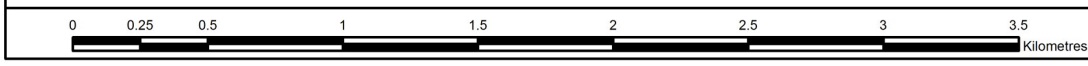
Datum: NAD83
 Projection: UTM Zone 17N

PROJECT N°: TC170506A

FIGURE: 5-2

SCALE: 1:28,000

DATE: July 2018

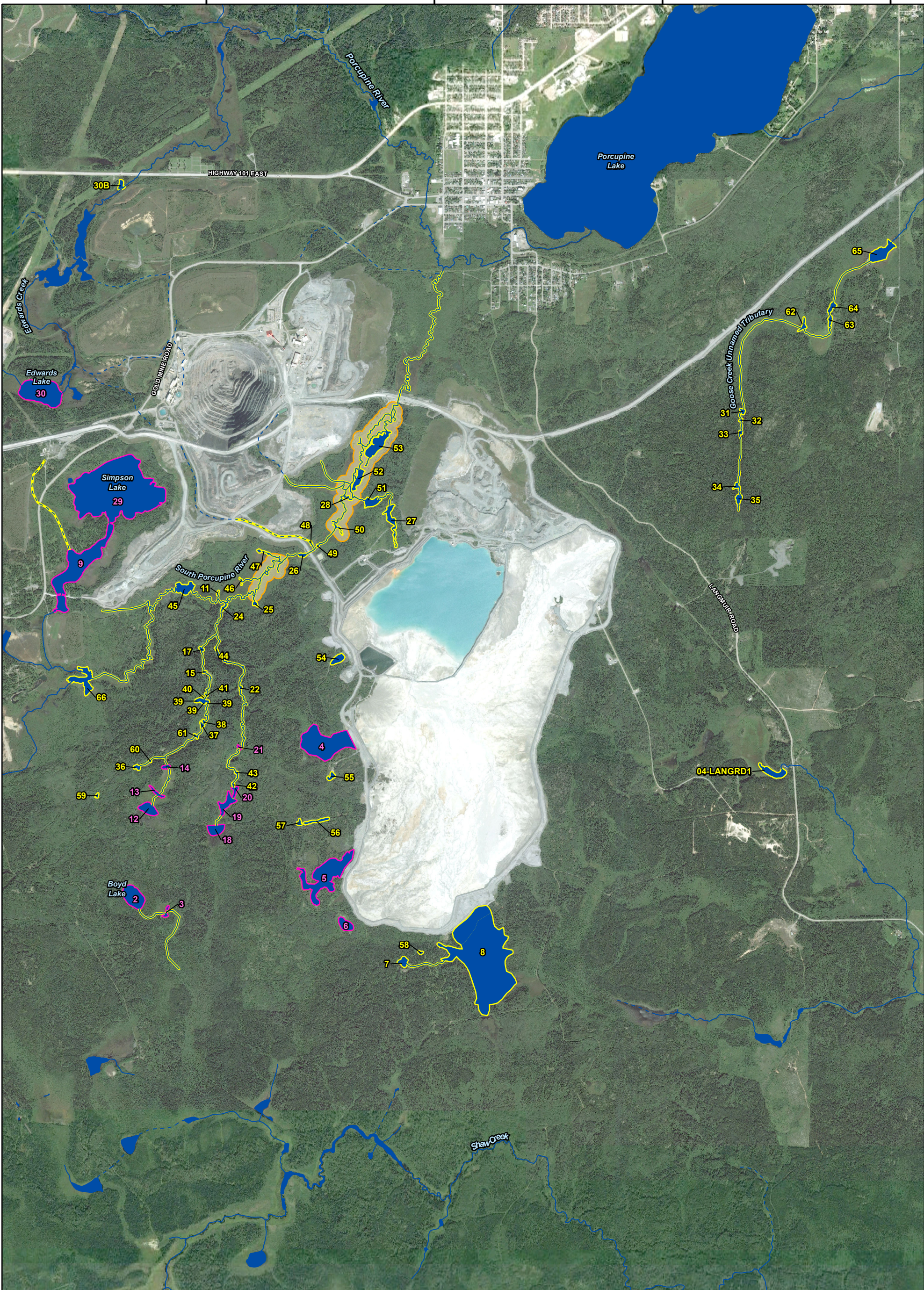


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<p>LEGEND</p> <ul style="list-style-type: none"> Proposed 2018 Sampling Location - Watercourse Proposed 2018 Sampling Location - Waterbody Waterbody Sampled in 2017 Historically Sampled Waterbody (2016 and earlier) Intermittent Watercourse Permanent Watercourse Waterbody 	<p>NOTES:</p> <ul style="list-style-type: none"> - Imagery extracted from Google Earth, 2016. - Watercourse and waterbody information extracted from LIO and modified to match aerial imagery. 	<div style="display: flex; justify-content: space-between; align-items: center;"> </div> <p style="text-align: center; font-weight: bold; margin-top: 5px;">CENTURY GOLD PROJECT</p> <p style="text-align: center; font-weight: bold; margin-top: 10px;">Aquatic Investigation Areas</p>				
<div style="display: flex; align-items: center;"> </div>	<p>Datum: NAD83 Projection: UTM Zone 17N</p> <div style="text-align: center;"> </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">PROJECT N°: TC170506A</td> <td style="width: 50%; padding: 2px;">FIGURE: 5-3</td> </tr> <tr> <td style="padding: 2px;">SCALE: 1:31,000</td> <td style="padding: 2px;">DATE: July 2018</td> </tr> </table>	PROJECT N°: TC170506A	FIGURE: 5-3	SCALE: 1:31,000
PROJECT N°: TC170506A	FIGURE: 5-3					
SCALE: 1:31,000	DATE: July 2018					

6.0 PROPONENT ENGAGEMENT WITH INDIGENOUS COMMUNITIES

6.1 Potentially Affected and Interested Indigenous Communities

Goldcorp believes in building partnerships through active engagement, and making positive and long-lasting contributions to the communities where it operates. While consultation and engagement on the Century Gold Project is in the early stage, Goldcorp believe that having proactive engagement with local Indigenous communities is necessary for the success of the Project.

Goldcorp has not as yet received direction from either the Federal CEA Agency or the Provincial MENDM to date regarding Indigenous communities to be consulted with respect to the Century Gold Project. Requests were made to both agencies earlier in 2017. In addition, none of the Timmins-area (or other) Indigenous communities have provided Goldcorp with maps of the traditional territories that could guide a need to consult and potentially accommodate with the community. Goldcorp is currently seeking advice / confirmation of these communities from the CEA Agency and from MENDM (Table 6-1): Flying Post First Nation (Reserve 73); Matachewan First Nation (Reserve 72); Mattagami First Nation (Reserve 71); Wahgoshig First Nation (Reserve 70); and the Métis Nation of Ontario / Timmins Metis Council.

Appendix C includes a copy of a First Nations and Treaties Map of Ontario published by the Government of Ontario which shows Reserves and approximate extent of treaties to provide context for the discussion herein (Figure AppC-1).

The determination of potentially affected or interested Indigenous communities to be engaged on the Century Gold Project presented herein should be considered preliminary, pending further Indigenous communications and additional regulatory guidance.

6.1.1 RDA Communities

In November 2014, Goldcorp PGM signed a RDA with the Flying Post First Nation, Matachewan First Nation, Mattagami First Nation and Wahgoshig First Nation (collectively the RDA Communities) that establishes a framework for existing and future mining projects in the Timmins area. The RDA is confidential, however a brief overview is provided to inform the CEA Agency.

Under the Agreement, Goldcorp recognizes and respects Indigenous rights and interests in the area of the PGM operations; and the First Nation communities recognize and support, Goldcorp's rights and interests in the operation and future mining development. In accordance with the RDA, Goldcorp will engage with these communities on all new mining developments in the local Timmins area and these communities are considered potentially affected and interested Indigenous communities for the Century Gold Project. Related discussions to date with the RDA community's representatives are summarized in Table 6-2.

6.1.2 Other Indigenous Communities

Goldcorp recognizes that the Métis Nation of Ontario may also have an interest in the Century Gold Project. The Century Gold Project is located within the Abitibi / Temiscamingue Traditional Harvest Territory of the Métis Nation of Ontario (Figure AppC-2, Appendix C). Most of the Métis peoples in Ontario are organized through the governance structure of the Métis Nation of Ontario, represented at the local level by Charter Community Councils, such as located in Timmins.

Other Indigenous communities may be identified in the future as having an interest in the Century Gold Project through engagement and regulatory discussions. Goldcorp has also initiated discussions with the Taykwa Tagamou Nation to determine the level of interest in the Century Gold Project.

6.2 Overview of Engagement with Indigenous Communities to Date

Information regarding the Century Gold Project was provided to the RDA Communities at a preliminary level during a number of the Consultation Committee meetings during 2017 and 2018, as well as Collaboration Committee meetings (Table 6-2). Project information was also provided to RDA community members through five community open houses. Project information was provided with the focus on ascertaining the most effective way to communicate with community members as engagement move forward.

The Draft Project Description was provided to the RDA Collaboration Committee on April 6, 2018 for a preliminary review to inform the development of this final document. During this comment period, a presentation was given to the RDA Consultation Committee on April 25, 2018. Preliminary comments were not provided within the agreed upon timeframe, and the draft document was issued on May 4, 2018 to the Flying Post First Nation, Matachewan First Nation, Mattagami First Nation and Wahgoshig First Nation for commentary. Comments regarding the Draft Project Description from the RDA Consultation Committee have been received and are included within the text of the Final Project Description, or will be addressed with the Committee.

Goldcorp has initiated discussions with the Métis Nation of Ontario and the Taykwa Tagamou Nation to determine the level of interest in the Century Gold Project.

6.3 Overview of Current Use of Lands and Resources for Traditional Purposes

The majority of the potential environmental effects related to the Century Gold Project will be confined to the site itself (and on brownfield lands) and local environments. Due to the considerable distance from any First Nation Reserve lands from the Century Gold Project site (the closest community located approximately 50 km away), Goldcorp is not anticipating any direct or indirect environmental effect on Reserve lands. Based on a preliminary assessments and current knowledge of the area, the Project is expected to be located within the areas of traditional land use of the Mattagami First Nation, Wahgoshig First Nation, Matachewan First Nation and Flying Post First Nation. The Project is located within the Métis Nation of Ontario Region 3 harvesting

areas. Ongoing discussions with the various Indigenous communities will outline their historical or current use of the Project area. Further information is provided in Section 5.6.

6.4 Key Comments and Concerns by Indigenous Communities

As consultation and engagement is in the early stage for the Century Gold Project limited comments have been expressed to date. For a list of comments and Goldcorp responses, please refer to Table 6-3. The comments received to date have centred on:

- Request for additional information and engagement on the Project, including a fact sheet regarding the Project;
- General concerns with respect to impacts on surface water, groundwater, archaeological values, terrestrial lands, wetlands and culturally significant areas;
- Involving the individual First Nation communities, and not just at the committee level; and
- Request for site tours.

6.5 Overview of Ongoing and Proposed Indigenous Engagement

6.5.1 General Approach

The focus of the early consultation and engagement efforts to date has been to introduce the Century Gold Project to the RDA Communities through the Consultation Committee and Collaboration Committee; and to indicate that there would be future consultation opportunities as the conceptual project design progresses.

The discussion that follows assumes that a Federal EA is required, although Goldcorp will complete Indigenous engagement for the Century Gold Project irrespective of the regulatory requirements. The following Indigenous engagement activities are proposed, subject to individual community feedback and revision for the RDA Communities, and Métis Nation of Ontario:

- Continue to engage and provide more detailed information to the Indigenous communities regarding the Century Gold Project to gather feedback regarding project design, including potential conflicts with traditional land use (see Section 5.6);
- Provide updates to the Indigenous communities through open house sessions, workshops or other means identified as preferred, determined cooperatively with assigned community representatives;
- Update and maintain the Goldcorp website to include information about the Century Gold Project regulatory and environmental aspects, to assist in informing individual community members, including digital copies of newsletters, Frequently Asked Questions and fact sheets produced;

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- Help ensure the community memberships are aware of the link for direct feedback for the Century Gold Project (<https://feedback.porcupinegoldmines.ca/en/feedback/detail.aspx>), as well as the public e-mail, social media and telephone number already in place for complaints or information requests associated with PGM projects.

Goldcorp is maintaining a database of its consultation and engagement activities with Indigenous communities for the Century Gold Project using the Enablon system. This system includes:

- Who was engaged and consulted;
- When, where and by what method the activity took place;
- What comments and concerns were shared; and
- Need for follow-up actions or commitments arising from consultation activities.

All comments and concerns received from Indigenous communities on the Century Gold Project will be tracked, and responses will be provided in a timely manner, in accordance with Goldcorp's formal response policy. The goal of responses will be to help clarify any aspects and/or assist in issue resolution. Any concerns expressed will be fully considered by Goldcorp as the project design progresses, and all applicable comments from stakeholders (written or verbal) will be considered in the environmental approval process. It is recognized that some comments may not be addressed to a stakeholder's satisfaction and any outstanding issues will be documented.

All regulatory requirements for consultation and engagement will be met as a minimum, including public review periods for documents. Hard copies documents made available for public review by Goldcorp will be made in the local Indigenous community offices, as well as strategic locations, such as the Timmins Public Library, Charles M. Shields Centennial Library (South Porcupine), Goldcorp Toronto office and applicable government office(s).

Digital versions of documents for public review will also be available for downloading from the Goldcorp website.

6.5.2 RDA First Nation Communities

Goldcorp plans to continue to provide updates regarding the Century Gold Project at Consultation Committee meetings going forward, unless otherwise directed by the RDA Coordinator. Goldcorp plans to hold for each RDA Community, dedicated meetings with the Chief and Council, Elders and community at large to gather feedback including Traditional Knowledge regarding:

- Project design and project alternatives; and
- Existing conditions, potential environmental effects and appropriate mitigation measures.

6.5.3 Other Indigenous Communities

Goldcorp intends to complete the following activities during 2018 with respect to the Métis Nation of Ontario:

- Assess level of interest in the Century Gold Project; and if appropriate
- Establish an ongoing approach to engagement, such as meetings, open houses and other means.

Goldcorp has also initiated discussions with the Taykwa Tagamou Nation to determine the level of interest in the Century Gold Project.

Table 6-1: Indigenous Communities which Goldcorp has Engaged / Propose to Contact

Indigenous Community	Total Population ¹	Location ²	Mailing Address	Postal Code	Phone	Fax
Flying Post First Nation (Reserve 73) Chief Murray Ray	226 members: 1 on-reserve 225 off-reserve	West of Timmins, Ontario	33 First St P.O. Box 1027 Nipigon, Ontario	P0T 2J0	807-887-3071	807-887-1138
Matachewan First Nation (Reserve 72) Chief Alex Batisse	794 members: 45 on-reserve 749 off-reserve ³	Southeast of Timmins, Ontario	P.O. Box 160 Matachewan, Ontario	P0K 1M0	705-565-2230	705-565-2585
Mattagami First Nation (Reserve 71) Chief Chad Boissoneau	574 members: 170 on-reserve 404 off-reserve ³	South of Timmins, Ontario	75 Helen Street P.O. Box 99 Gogama, Ontario	P0M 1W0	705-894-2072	705-894-2887
Wahgoshig First Nation (Reserve 70) Chief Joel Babin	339 members: 138 on-reserve 201 off-reserve ³	East-northeast of Timmins, Ontario	310 Penatuche Rd. P.O. Box 629 Matheson, Ontario	P0K 1N0	705-273-2055 705-273-0949	705-273-2900
Métis Nation of Ontario Timmins Metis Council, Jacques Picotte, President	-	-	347 Spruce Street South Timmins, Ontario	P4N 2N2	705-264-3939	705-264-5468
Taykwa Tagamou Nation (Reserve 69A) Chief Daniel Archibald	628 members: 141 on-reserve 487 off-reserve ⁴	Northeast of Timmins, Ontario	RR#2, Box 3310 Cochrane, Ontario	P0L 1C0	705-272-5766	705-272-5785

Notes:

- ¹ AANDC (2017, 2018; now Crown-Indigenous Relations and Northern Affairs Canada).
- ² See Figure 3-4 for location; Approximate centroid distances are described in Section 3.1.
- ³ Off Reserve or on other Reserve / on Crown land.
- ⁴ Includes 14 members residing on other Reserves or on Crown land.

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Table 6-2: Related Discussions with RDA Community Representatives

Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
January 12, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Flying Post First Nation, Goldcorp	<p>Overview provided of the proposed Century Gold Project concepts for tailings expansion.</p> <p>The communities expressed comments to consider the impacts on surface water, groundwater, archeological values, terrestrial, wetlands and culturally significant areas as part of the project.</p> <p>They suggested that the discussions should involve not only the RDA committee members but also the members of the community. They requested that the communities partake in early discussions at each stage of the project including at the concept phase. They are requesting additional information in order to fully understand the project.</p>	<p>Goldcorp remains committed to early engagement and open, transparent dialogue with all our Indigenous community partners. Throughout the permitting process there will be plenty of opportunities for both RDA Committee and RDA community feedback.</p> <p>Feedback can also be provided any time throughout the permitting process by reaching out to the Century Gold Project team or the RDA Coordinator.</p>
February 16, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Flying Post First Nation, Goldcorp	Discussion held regarding Century Gold Project. Committee member requested that the project not be discussed at the committee until approvals are received from their band office.	Goldcorp will ensure that an RDA Collaboration Committee meeting is booked in order to continue to the conversation about the Century Gold Project.
March 24, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp	The communities requested a higher level of consultation in regards to the project going forward (while recognizing that the project is still in the concept stage).	Goldcorp is committed to early engagement and open, transparent dialogue throughout the permitting process. Goldcorp will continue to provide opportunities for feedback and idea sharing in the forms of open houses, meetings and workshops.
April 19, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Wahgoshig First Nation, RDA Coordinator, Blue Heron, Goldcorp	The communities requested additional consultation and engagement in regards to the Century Gold Project. The RDA Coordinator to request input from each First Nation Chief and Council, as to whether the engagement should be combined, or in separate meetings for each community.	Goldcorp continues to remain committed to early engagement and open, transparent dialogue throughout the permitting process. While still in early stages, there will be opportunities for community input throughout the permitting process.

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
May 24, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp	Additional consultation and engagement in regards to the Century Gold Project was requested. Goldcorp indicated geotechnical drilling is ongoing to support the concept stage. Committee agreed that the Century Gold Project Manager could be invited to provide a presentation at next meeting.	Goldcorp will continue to provide information to facilitate feedback throughout the planning process for Century Gold Project. Goldcorp will provide an introductory presentation for the RDA Consultation Committee.
June 19, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp	<p>Goldcorp provided a preliminary presentation on the Century Gold Project. The project is conducting a gap analysis of the environmental studies. Time-critical terrestrial surveys for migratory birds and bats have been started to meet Environment Canada and Climate Change guidelines, as well as for bats.</p> <p>Committee members indicated that the communities should be engaged in the project planning within the early stages of the project including field investigations. Preliminary discussions include the extent of waste rock storage areas, tailings facilities, the size of the open pit, etc.</p> <p>Contact with the communities could be provided by the RDA Coordinator. The RDA Consultation Committee members need to be informed along with the communities.</p>	Goldcorp will ensure that our Indigenous community partners are included in the early discussion and planning for the Century Gold Project. Goldcorp will continue to work closely with the RDA committees and RDA Coordinator.
October 10, 2017	RDA – Consultation Committee Meeting	Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, Goldcorp	Goldcorp provided an update regarding the proposed aquatics baseline fieldwork to be completed in October, 2017. Committee requested an update on results when available. An update regarding the Century Gold Project is scheduled to be provided at the next Collaboration Committee meeting.	Goldcorp will provide the results of the environmental baseline studies once the results are made available.

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
October 18, 2017	Collaboration Committee	Flying Post First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp	Goldcorp provided a preliminary presentation on the Century Gold Project. Committee members raised questions regarding the opportunity to extend mine life while reducing environmental impacts in particular to local water quality and flow regime. They also provided feedback on preferences to engage within their communities and sought clarification on consultation outside of the RDA membership	Goldcorp will continue to provide Project updates during the monthly RDA Consultation Committee meetings. Goldcorp will continue to work towards the extension of the Dome Mine life, while creating a little environmental impact as possible.
November 9, 2017	RDA – Consultation Committee Meeting	Wahgoshig First Nation, RDA Coordinator, Goldcorp	Goldcorp provided a preliminary presentation on the Century Gold Project.	-
January 17, 2018	RDA – Consultation Committee Meeting	Wahgoshig First Nation, Mattagami First Nation, RDA Coordinator, Goldcorp	Goldcorp provided a summary on the status for the Century Gold Project regarding planning for the 2018 environmental and social baseline fieldwork. Field studies include: air quality, sound, vibration, hydrology, hydrogeology, and geochemistry building on the existing monitoring network. Additional fieldwork will include: aquatics (benthic and fish), vegetation and wildlife (bird, bat, mammals, raptor, amphibian, and turtle), archaeology, heritage buildings, socio-economic and traditional knowledge.	Goldcorp remains committed to ensuring the proposed Century Gold Project in the most environmentally responsible way possible. Environmental baselines study results will be shared with our Indigenous partners when they are available and there will be opportunities scheduled for discussion and idea sharing.
January 17, 2018	Mattagami First Nation Community Open House	Mattagami First Nation community members, RDA Coordinator, Goldcorp	Open House was hosted by the Mattagami First Nation leadership. Century Gold Project introductory information and comment forms were provided with Goldcorp site updates and recruitment opportunities.	Goldcorp provided clarification community members on the location of the Dome Mine and Century Gold Project. Employment and procurement opportunities will be made available through the existing channels of communication. Goldcorp will continue to provide opportunities for input and discussion with the community at a later date.

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
February 5, 2018	Open House - Mattagami First Nation	Mattagami First Nation community members, RDA Coordinator, Goldcorp	<p>Goldcorp hosted a community Open House and dinner.</p> <p>The focus of the evening was to update the community members on Goldcorp Operations, Cyanide Code, RDA and Century Gold Project.</p> <p>Community members raised questions throughout the presentation regarding environmental related components.</p> <p>Questionnaires were provided to address such questions. Feedback from the Open House focused on environmental components, employment and the request for a Goldcorp site tour. Feedback from the community highlighted that open houses and newsletters were the preferred methods of contact for future engagement.</p>	<p>Goldcorp remains committed to open, respectful dialogue and values the input of all our Indigenous community partners. While still in very early stages, Goldcorp continues to request for community feedback in the planning stages and incorporate Indigenous knowledge and traditional values as the Project moves forward.</p> <p>Environmental baselines data is currently being collected and will be made available to the community once the results are available. Employment and training opportunities will continue to be offered by PGM throughout the planning process through existing channels.</p>
February 15, 2018	Open House - Flying Post First Nation	Flying Post First Nation community members, RDA Coordinator, Goldcorp	<p>Goldcorp hosted a community open house and dinner.</p> <p>The focus of the evening was to update community members on PGM Operations, Cyanide Code, the RDA and the Century Gold Project.</p> <p>Community members raised questions regarding employment opportunities with Goldcorp.</p> <p>Questionnaires were provided to address such questions. Feedback from the Open House focused on employment and training opportunities. Feedback highlighted that the band office and newsletters were the preferred methods of contact for future engagement.</p>	<p>Employment and training opportunities will continue to be offered by PGM throughout the planning process through existing channels. Goldcorp remains open to feedback regarding the employment and training process for the Century Gold Project as the Project progresses.</p>

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
February 22, 2018	Open House - Matachewan First Nation	Matachewan First Nation community members, RDA Coordinator, Goldcorp	<p>Goldcorp hosted a community open house and dinner. The focus of the evening was to update community members on PGM Operations, Cyanide Code, RDA and Century Gold Project.</p> <p>Community members raised questions throughout the presentation related to environmental components, employment and training and requests for more information.</p> <p>Questionnaires were provided to address such questions. Feedback from the Open House focused on environmental components, training and employment and the request for a Goldcorp site tour. Feedback highlighted that open houses, the band office and newsletters were the preferred methods of contact for future engagement.</p>	Employment and training opportunities will continue to be offered by PGM throughout the planning process through existing channels. Goldcorp remains open to feedback regarding the employment and training process for the Century Gold Project as the Project progresses.
February 22, 2018	RDA – Consultation Committee Meeting	Matachewan First Nation, Wahgoshig First Nation, Mattagami First Nation, Flying Post First Nation, RDA Coordinator	<p>Goldcorp provided an update on the Project environmental and social baseline studies and ongoing progression of the Project.</p> <p>Goldcorp also presented preliminary feedback from the open houses and meetings that occurred to date.</p>	From the results of the previous Community Open Houses Goldcorp will be developing a newsletter and scheduling additional open houses for information sharing. Environmental and social baselines studies are ongoing, and results will be shared once they become available.
March 28, 2018	RDA – Consultation Committee	Mattagami First Nation, Wahgoshig First Nation, Flying Post First Nation, RDA Coordinator, Goldcorp	Goldcorp provided an update regarding the Traditional Knowledge (TK) Project and the tendering process.	Goldcorp is committed to ensuring that Traditional Ecological Knowledge and Traditional Land Use is taken into consideration throughout the planning process of the Century Gold Project. We will continue to work closely with the RDA committees and RDA Coordinator to ensure that a Traditional Knowledge study is carried out for the Century Gold Project.
April 4, 2018	RDA – Collaboration Committee	Mattagami First Nation, Flying Post First Nation, Wahgoshig First Nation, Matachewan First Nation, Goldcorp	Goldcorp provided advanced notice of the submission of the Draft Project Description to the RDA Consultation Committee members, including a brief summary of consultation conducted to date.	Advance notice provided

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
April 6, 2018	RDA – Consultation Committee	Mattagami First Nation, Flying Post First Nation, Wahgoshig First Nation, Matachewan First Nation, Goldcorp	E-mail distribution of the Draft Project Description for Century Gold Project to RDA Consultation Committee Members.	Draft Project Description sent
April 19, 2018	Métis Nation of Ontario, Timmins	Metis Nation of Ontario – Timmins, Goldcorp	Goldcorp met with the Mineral Development Advisor from Métis Nation of Ontario. Goldcorp was introduced along with a high level description of the Century Gold Project and team. A presentation was requested to be provided to the Métis Nation of Ontario Consultation Committee to formally introduce Goldcorp and the proposed Century Gold Project.	Goldcorp remains committed to open, respectful dialogue throughout the Century Gold Project permitting process. Goldcorp anticipates that the Draft Project Description will be submitted in May 2018 and can be provided to the MNO for review.
April 25, 2018	RDA – Consultation Committee meeting	Wahgoshig First Nation, Mattagami First Nation, Flying Post First Nation, RDA Coordinator, Goldcorp	Presentation of a summary of the Draft Project Description for the Century Gold Project.	-
April 26, 2018	RDA – Consultation Committee / Third-Party Reviewer	RDA Coordinator, Third-Party Reviewer (Zhashazi - Blue Heron), Goldcorp	Presentation of a summary of the Draft Project Description for Century Gold Project to better inform the third-party review of the document on behalf of the RDA Consultation Committee members.	-
April 26, 2018	RDA Collaboration Committee	Flying Post First Nation, Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp	Goldcorp sent an invitation for up to 20 community residents to attend a Mine Site Tour of the Goldcorp Porcupine Gold Mines property.	Invitation sent
May 6, 2018	RDA Collaboration Committee	Flying Post First Nation, Matachewan First Nation, Mattagami First Nation, Wahgoshig First Nation, RDA Coordinator, Goldcorp.	Goldcorp sent an invitation for a small number of community residents to attend a Century Gold Project Layout and Alternatives Workshop.	Invitation sent

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Date	Purpose of Meeting	Meeting Participants	Related Content	Goldcorp Responses
May 10, 2018	RDA – Consultation Committee / Matachewan	Matachewan First Nation	Presentation of a summary for the Draft Project Description for Century Gold Project, as the RDA Consultation Committee member was not present on April 25, 2018.	-

Notes:

Accurate to June 15, 2018.

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Table 6-3: Comments from Indigenous Communities and Goldcorp Responses

Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
February 7, 2018	Mattagami First Nation Community Open House – Introduction to Century Gold Project.	Is arsenopyrite in the rock? Is there a potential for leaching arsenic into the water?	Goldcorp explained that there is no arsenopyrite found at the Dome Mine Site. Ongoing geochemistry testing will confirm rock type, mineralogy and chemical composition. A Waste Rock Management Plan has been developed for current operations and will be amended as part of the Project.
February 7, 2018	Mattagami First Nation Community Open House – Introduction to Century Gold Project.	Is there the option for a mine site tour for those community members interested?	Goldcorp is open to planning a community site tour. Sign-up sheets were distributed to the communities along with the individual's contact information.
February 7, 2018	Mattagami First Nation Community Open House – Introduction to Century Gold Project.	Goldcorp should look at what will be released into the air; not just soil and water.	Goldcorp explained that there is currently a monitoring network of air quality, noise and vibration stations as part of the baseline Studies along with current Dome Mine operations. This will be used to describe existing conditions. Air emissions will be part of the environmental impact assessment. Goldcorp will provide this information with the community as part of the EA process.
February 15, 2018	Flying Post First Nation Community Open House – Introduction to Century Gold Project	Will there be employment opportunities for students and youth? The challenge with working in Timmins is living arrangements; it is a long way from Nipigon.	Goldcorp encourages students to submit resumes and apply for positions for the current operations. This experience could lead to fulltime employment and skills that could be used in other opportunities, if members of the community apply, in particular students.
February 22, 2018	Matachewan First Nation Community Open House – Introduction to Century Gold Project	Is this just going to be an open pit mine? No underground mining?	Goldcorp confirmed that at this point in time the Project is expected to be the redevelopment of the existing Dome Open Pit.
February 22, 2018	Matachewan First Nation Community Open House – Introduction to Century Gold Project	Is the mill going to be in the same place? Will there be changes to how the mill will operate? Is there any talk of making the mill larger?	Goldcorp explained that the mill will be replaced with a larger facility. At this point in time, Goldcorp is identifying the preferred location for the new processing facility. Goldcorp explained that the new mill will be similar in nature, but will be more efficient than the existing mill. Goldcorp explained that the mill capacity will increase from approximately 12,000 tpd to approximately 50,000 tpd production. However, the mill capacity may change as the project progresses.

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Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
February 22, 2018	Matachewan First Nation Community Open House – Introduction to Century Gold Project	How big is the new tailings facility going to be?	Goldcorp explained that it is anticipated to build onto the existing tailings with an expansion cell. The dimension of the area is not currently finalized.
February 22, 2018	Matachewan First Nation Community Open House – Introduction to Century Gold Project	How often do you anticipate being in the community?	Goldcorp explained that pre-set dates have not been established. As new information is provided Goldcorp will return to the communities for comments and feedback. Once the Project Description is submitted, Goldcorp will be actively involved in community discussions. Goldcorp will continue to meet with the RDA Consultation Committee on a monthly basis separate from the community meetings to update on all of PGM operations.
April 19, 2018	Metis Nation of Ontario – Timmins Office. Introduction and Century Gold Project Overview	Why is a Federal EA needed for Century?	Goldcorp explained that due to the size of the proposed processing facility, this is likely to be determined as a designated project which triggers a Federal EA.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	The Project Description mentions the United Nations Women’s Empowerment Principals and other national and international sustainability commitments, does Goldcorp align with the United Nations Declaration on the Rights of Indigenous Peoples?	Goldcorp remains committed to ensuring open, respectful dialogue as it is at the heart of everything that we do. As such, Goldcorp aligns with the United Nations Declaration on the Rights of Indigenous Peoples. To ensure that we are aligned, Goldcorp maintains a membership with the International Council of Mining and Metals (ICMM) and adheres to the ICMM Position Statement on Mining and Indigenous Peoples. In 2015, Goldcorp updated a Human Rights Policy in order to address an approach to Free, Prior & Informed Consent (FPIC). Additionally, Goldcorp implemented the Sustainability Excellence Management Systems (SEMS) which includes a Human Rights Standard on FPIC for all operations and projects.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	In reference to Baseline Studies, why was no Indigenous Technical Assistant hired to support the RDA communities?	Goldcorp remains committed to continuously improving relations with our Indigenous partners. An Indigenous Technical Assistant position is being considered for the Feasibility Stage of the Century Gold Project. This position would look to support the ongoing environmental baseline studies and consultation process.

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Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	Regarding baseline studies, what work is being done to identify culturally significant species (aquatic, bird, mammal, amphibian, reptile and vegetation) and is there an opportunity for indigenous community input?	Through Goldcorp's partnership with the RDA communities and input from the RDA Coordinator, a Traditional Knowledge and Traditional Land Use Study is being initiated. Outside of this study, Goldcorp remains committed to keeping the channels of communication open. While community feedback is welcome any time through the community RDA Consultation Committee representative and RDA Coordinator, Goldcorp will ensure there is plenty of opportunities for indigenous input. Additional community open houses, mine site tours and workshops will continue to occur as the Century Gold Project progresses.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	Is Goldcorp able to provide baseline environmental information collected on Simpson Lake?	While baseline environmental studies are ongoing, Goldcorp will ensure that the results of all baseline studies, including on Simpson Lake, are provided to the RDA Communities. Open houses, workshops and communication material have been planned to ensure the opportunity for indigenous community feedback.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	The Diversion channel will require a values assessment (under the Traditional Knowledge Study) along the proposed corridor.	Goldcorp confirms that the proposed diversion channel is included within the Traditional Knowledge Study area.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	The proposed Diversion channel is being run through two TMA. What are the potential impacts on water quality with this diversion?	As part of pre-feasibility, ongoing baseline and engineering studies are currently in progress for the proposed diversion channel. Goldcorp is committed to keeping the doors of communication open and will present the results of these studies as they are completed.
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	The proposed Diversion channel is being run through two TMA. What potential impacts on tailings stability could happen with this diversion?	As part of the pre-feasibility, ongoing baseline and engineering studies are currently in progress for the proposed diversion channel. Goldcorp is committed to keeping the doors of communication open and will present the results of these studies as they are completed.

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Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	With the mention of cogeneration as an option to provide power, will Goldcorp be doing an Air Quality Assessment?	<p>As a part of the pre-feasibility study, all options for the Century Gold Project are reviewed and assessed, including cogeneration. Although no decision has been made at this point in time regarding the construction of this facility, air quality is currently being assessed as part of the 2018 Environmental Baseline Study program.</p> <p>Goldcorp will build on the existing network of air quality testing equipment to incorporate the proposed Century footprint. For more information on what the existing air quality program tests for please refer to the live monitoring system located around the Hollinger Open Pit.</p> <p>https://sentinel.bksv.com/goldcorp/porcupine#Live Monitoring 2024</p>
May 23, 2018	RDA Draft Project Description Submission – Preliminary Comments from RDA Consultation Committee via the RDA Coordinator	RDA identified the opportunity to create a training/work program for community members to support RDA/Century Gold Project. Example provided was the creation of the Indigenous Technical Assistant role.	Goldcorp remains committed to continuously improving relations with our current Resource Development Agreement communities. While the opportunity did not present itself during the pre-feasibility phase, Goldcorp is currently working to include an Indigenous Technical Assistant role beginning in the feasibility stage of the Project.

Note:

Accurate to June 15, 2018; does not include comments on Draft Project Description.

7.0 PROPONENT CONSULTATION WITH STAKEHOLDERS

7.1 Potentially Affected and Interested Stakeholders

Goldcorp is committed to actively communicating information regarding the Century Gold Project and engaging with the government agencies, local stakeholders, and other interested parties. These activities were initiated during 2017 and are anticipated to expand considerably now that Project design concepts have progressed sufficiently to support public consultation efforts.

7.1.1 Government Agencies Engaged to Date

The primary stakeholders involved in the Century Gold Project to date have been Federal, Provincial and Municipal government agency representatives and similar. Key government agencies that have been engaged to date regarding environmental aspects, and introduced to the Century Gold Project through discussions, meetings and/or site tours, are listed below.

Federal Government Agencies:

- CEA Agency.

Provincial Government Ministries:

- MENDM;
- MNRF;
- MECP; and
- Ministry of Economic Development and Growth.

Local Government:

- City of Timmins.

Public and Other Stakeholders:

- Hydro One; and
- Union Gas.

7.1.2 Government Agencies Anticipated to be Engaged

Goldcorp anticipates that the government stakeholder list will evolve and expand through the various project stages to reflect varying levels of interest and involvement over time. The summary the follows lists the additional government agencies anticipated to be actively engaged on the environment-related aspects of the Century Gold Project, based on experience with other Ontario mining projects. Continued engagement is expected to continue to occur with the government agencies already involved with the Century Gold Project.

Federal Government Agencies:

The following Federal agencies are anticipated to be involved with the Century Gold Project based on the conceptual project design:

- Environment and Climate Change Canada;
- Fisheries and Oceans Canada;
- Health Canada;
- Crown-Indigenous Relations and Northern Affairs Canada;
- Natural Resources Canada; and
- Transport Canada.

Provincial Government Ministries:

While the following Provincial Ministries do not typically issue approvals for mining projects, they may be involved in environmental approvals process for Ontario mines:

- Ministry of Indigenous Relations and Reconciliation;
- Ministry of Municipal Affairs; and
- Ministry of Tourism, Culture and Sport.

Local Government:

The Century Gold Project is located within City of Timmins, and accordingly, Goldcorp anticipates that consultation with Municipal government agencies and representatives will be important. Various departments of the Municipal government are anticipated to be involved in the environmental-related aspects of the Century Gold Project including:

- Mayor and Council;
- Timmins Chamber of Commerce;
- Timmins Economic Development Corporation; and
- MRCA.

7.1.3 Other Stakeholders Anticipated to be Engaged

There is a relatively lengthy list of stakeholders which Goldcorp is currently engaging or has previously engaged regarding its other Timmins area projects. It is expected that a number of these stakeholders will also be interested in the Century Gold Project and will be actively engaged by Goldcorp to gain a better understanding of their issues and interests.

The list that follows provides a subset of the existing Goldcorp Timmins stakeholder list that are expected to have an interest in the environmental aspects of the Century Gold Project, expanded in consideration of the following criteria:

- Proximity to the Project; if the stakeholders are resident in or near the area in which the project is proposed or has the potential to affect; and/or
- Anticipated to have a stake / interest in the potential biophysical and socio-economic environmental effects of the Project.

The following stakeholders were identified based on government agency guidance, experience, local knowledge and background research:

- Local residential property owners;
- Local land and resource users;
- Porcupine Ski Runners;
- Hollinger Project Community Advisory Committee;
- Timmins Snowmobile Club;
- Timmins Golden Hawks (model aeronautics club);
- Timmins Fur Council;
- Ducks Unlimited;
- General public; and
- Environmental non-government organizations (such as Porcupine Watchful Eye).

The range of stakeholders is expected to increase and evolve throughout Project development to reflect varying levels of interest and issues over time.

7.2 Overview of Stakeholder Consultation Activities to Date

The consultation program that has been completed to date was designed primarily to introduce various government stakeholders to the Century Gold Project. Consultation methods to date include in-person meetings, site tours, telephone conversations and e-mail communications. Table 7-1 provides an overview of the meetings and site tours held to the June 15, 2018 regarding the environmental aspects of the Century Gold Project.

7.3 Key Comments and Concerns by Stakeholders

Interest has been expressed regarding environmental and social aspects of the Century Gold Project as briefly described below. There has also been a large number of the comments requesting additional information regarding the preliminary design. Table 7-2 outlines the key stakeholder comments along with Goldcorp responses to date.

Employment and Benefits:

- The majority of queries received by Goldcorp regarding the Century Gold Project have related to potential employment and contracting / procurement opportunities that would arise with extending the mine life.

Air Quality, Noise and Vibration:

- Concern regarding potential impacts on South Porcupine and other residences on Gold Mine Road.

Water Resources:

- Concern about water and the need for diversions.

Environmental Management:

- EA and environmental approval requirements; and
- Regulatory design requirements.

Project Components:

- Requirements to realign roadways;
- Consideration of other brownfield sites for mine waste storage;
- Ore sources and mine waste management;
- Requirements to dewater and for seepage collection;
- Approach to backfilling; and
- Life of mine and the mining process generally.

7.4 Overview of Ongoing and Proposed Stakeholder Consultation Activities

The focus of the early consultation and engagement efforts to date has been to introduce stakeholders to the Century Gold Project, and to indicate that there would be future consultation opportunities as engineering progresses. Goldcorp is already very well known in the Timmins area having operated the Dome Mine and Processing Plant, Hollinger Mine and Hoyle Pond Mine, as well as other closed or inactive sites. As a result, an introduction to the Company is generally not needed.

Goldcorp proposes to inform and involve stakeholders in the Century Gold Project in a variety of ways going forward, appropriate for the individual stakeholder. Future activities will be structured to ensure opportunities for open discussion and collection of feedback. A Stakeholder Engagement Plan is in preparation to help guide stakeholder consultation and engagement on the Century Gold Project in accordance with regulatory needs. The plan will be finalized once greater certainty is available regarding regulatory requirements.

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The following stakeholder engagement activities are proposed, subject to stakeholder feedback and revision:

- Continue to engage and provide more information to the Federal and Provincial agencies to facilitate the EA / environmental approval processes.
- Provide updates and hold meetings with appropriate City of Timmins departments to ensure alignment on long-term development objectives and obtain information regarding any local government needs.
- Work to reinstate a community advisory liaison group (and potentially work with other local groups), as a means of querying specific community interests in the Project development.
- Hold ongoing discussions with stakeholder organizations (as requested) to provide updated information about the Century Gold Project and gather feedback.
- Distribute notices of community information events (such as by posting in the Timmins Press and the Goldcorp website / Century Gold Project page, or other means).
- Provide updates to the community through open house sessions and individual land owner meetings.
- Creation and distribution of a quarterly newsletter which will provide project updates, timeline updates and information on a variety of aspects of the Century Gold Project. Frequently Asked Questions and Fact Sheets will also be created as appropriate, and provided to key stakeholders and made available at meetings.
- Update and maintain the Goldcorp website to include information about the Century Gold Project regulatory and environmental aspects, and provide the link for direct feedback (<https://feedback.porcupinegoldmines.ca/en/feedback/detail.aspx>).
- Make publicly available the public e-mail, social media and telephone number already in place for complaints or information requests associated with PGM projects.

Goldcorp is maintaining a database of its consultation and engagement activities with stakeholders for the Century Gold Project using the Enablon system. This system includes:

- Who was engaged and consulted;
- When, where and by what method the activity took place;
- What comments and concerns were shared; and
- Need for follow-up actions or commitments arising from consultation activities.

All comments and concerns received for the Century Gold Project will be tracked, and responses will be provided in a timely manner, in accordance with Goldcorp's formal response policy and

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timeframe. The goal of responses will be to help clarify any aspects and/or assist in issue resolution. Any concerns expressed will be fully considered by Goldcorp as the project design progresses, and all comments from stakeholders (written or verbal) will be considered in the environmental approval process where applicable. It is recognized that some comments may not be addressed to a stakeholder's satisfaction and any outstanding issues will be documented.

All regulatory requirements for consultation and engagement, including provision of opportunities for public review of documents will be met as a minimum. Hard copies documents for public review will be made available at convenient and strategic public locations such as the: Timmins Public Library, Charles M. Shields Centennial Library (South Porcupine), Goldcorp Toronto and South Porcupine offices, and applicable government office(s).

Digital versions of documents for public review will also be available for downloading from the Goldcorp website.

7.5 Other Jurisdictions

The Century Gold Project is located within the Province of Ontario and must meet the regulatory requirements of the Provincial and Federal governments. As indicated in Section 1.4.2, Provincial EA processes which could potentially apply to the Century Gold Project include:

- Ontario MNRF Class EA for Resource Stewardship and Facility Development Projects to support issuance of environmental approvals under its regulatory review including in water work and watercourse diversions.
- In addition, a Class EA for Minor Transmission Line Facilities may be required to support the environmental approvals for the construction of a short transmission line connection (nominal 230 kilovolt or less of less than 10 km), to the regional hydroelectric grid at the Timmins Transformer Station.

Goldcorp proposes to work closely with the Federal and Provincial governments to coordinate any required consultation and engagement needs under both CEEA, 2012 and the Ontario *Environmental Assessment Act* in order to minimize the effort required by stakeholders (and Indigenous communities) to be effectively engaged.

Based on the location of the project and feedback to date, Goldcorp does not intend to consult or engage with stakeholders outside of Ontario.

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Table 7-1: Related Meetings / Communications with Government Agencies

Date	Meeting Participants	Purpose of Communication
June 13, 2017	MECP (Minister's office)	Introduction to the Century Gold Project
June 14, 2017	MECP (Toronto, Approvals Branch)	Introduction to the Century Gold Project
June 14, 2017	MENDM (Toronto, Sudbury)	Introduction to the Century Gold Project
June 14, 2017	MENDM and MECP (Timmins)	Introduction to the Century Gold Project
June 26, 2017	CEA Agency (Toronto)	Written response to CEA Agency May 26 letter that provide information regarding CEAA 2012 and associated regulations
June 28, 2017	Ministry of Energy (Minister's office)	Presentation including information on greenhouse gas reduction action plan
July 19, 2017	MENDM (Timmins)	Introduction to the Century Gold Project
July 20, 2017	CEA Agency (Toronto)	Introduction to the Century Gold Project
July 28, 2017	CEA Agency (Toronto)	Introduction to the Century Gold Project; designated project consultation
August 23, 2017	MENDM (Timmins and Region)	Introduction to the project and site tour
August 24, 2017	City of Timmins	Introduction / update for project and preliminary land requirements
September 27, 2017	CEA Agency (Toronto)	E-mail response to request for additional information to clarify the Century Gold Project and Indigenous groups
September 28, 2017	MENDM, MNRF and MECP (Timmins)	Introduction / update on the project
October 24, 2017	MENDM, MNRF and MECP (Timmins)	Site tour of the Century Gold Project footprint
November 2, 2017	MNRF (Timmins)	Introduction to Century Gold Project and clarification on local land uses
November 7, 2017	MECP (Approvals)	PGM discussion, including introduction to Century Gold Project
November 20, 2017	City of Timmins	Letter requesting access for baseline monitoring
December 9, 2017	CEA Agency (Toronto)	Discussion of Century Gold Project and next steps
December 13, 2017	MECP (Toronto)	E-mail response to request for information
January 8, 2018	MECP (Toronto)	Introduction to the project and discussion of potential Provincial EA process(es)
January 11, 2018	City of Timmins	Presentation to City Council, including the Century Gold Project
January 29, 2018	MECP (Toronto)	Letter with additional information sent regarding the Century Gold Project
January 30, 2018	CEA Agency (Toronto)	E-mail response provided to request for information
February 28, 2018	MECP (Toronto)	Meeting to discuss Century Gold Project and information provided
March 2, 2018	MNRF (Timmins)	Land use discussion
April 24, 2018	MECP (Timmins)	Monthly operational update meeting. Request was made to provide monthly Century Gold Project updates going forward.
May 2, 2018	MENDM (Timmins)	Meeting to review MENDM authorization requirements for geotechnical drilling / test pitting activities for 2018.
May 3, 2018	CEA Agency (Toronto)	E-mail provided notice that the Draft Project Description would be submitted to CEAA on May 4, 2018.
May 4, 2018	CEA Agency (Toronto)	E-mail confirming that the Draft Project Description was successfully downloaded. CEAA confirmed that they would be providing comments in the coming weeks.

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Date	Meeting Participants	Purpose of Communication
May 10, 2018	MECP (Toronto)	E-mail confirming that the Draft Project Description was successfully downloaded. MECP confirmed that they would review and reach out if they have questions.
May 22, 2018	City of Timmins – Community Development Council	Meeting to introduce the Century Gold Project, including the Draft Project Description.
May 22, 2018	MECP (Toronto)	E-mail indicating that the Draft Project Description had been reviewed and there were no questions or concerns at this time.
May 23, 2018	Mattagami Region Conservation Authority	Presentation to provide the overview of the Century Gold Project and Draft Project Description.
May 25, 2018	MENDM (Timmins)	Presentation to provide the overview of the Century Gold Project and Draft Project Description.
May 25, 2018	MECP (Timmins)	Presentation to provide the overview of the Century Gold Project and Draft Project Description.
May 25, 2018	MNRF (Timmins)	Presentation to provide the overview of the Century Gold Project and Draft Project Description.
May 28, 2018	City of Timmins – Community Development Council	E-mail providing notice of submission of Draft Project Description by large file transfer.
May 28, 2018	Mattagami Region Conservation Authority	E-mail providing notice of submission of Draft Project Description by large file transfer.
May 28, 2018	MDNM (Timmins)	E-mail providing notice of submission of Draft Project Description by large file transfer.
May 28, 2018	MECP (Timmins)	E-mail providing notice of submission of Draft Project Description by large file transfer.
May 28, 2018	MNRF (Timmins)	E-mail providing notice of submission of Draft Project Description by large file transfer.

Notes:

Accurate to June 15, 2018. For ease of reference current names for Provincial Ministries utilized.

Listing does not include engagement with the CEA Agency with respect to the Project Description content.

Table 7-2: Comments from Non-Indigenous Stakeholders and Goldcorp Responses

Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
September 28, 2017	Provincial Multi-Agency Introduction to Century Gold Project	Are you looking to combine both closure plans (Dome and Dome Century)?	Goldcorp explained that at this point in time, they are being managed separately. However, further into the process this decision is subject to change.
September 28, 2017	Provincial Multi-Agency Introduction to Century Gold Project	Are you planning on backfilling the Dome underground?	Goldcorp explained that the Dome underground workings will be allowed to fill with water after operations ceases in December 2017.
October 24, 2017	Provincial Multi-Agency Fall Proposed Century Footprint Tour	Is there going to be an opportunity for those who are working directly with the Century Gold Project to visit the site (tailings specifically) in greater detail?	Goldcorp indicated that there will be opportunity for small groups to visit the site at a later point in time. The suggestion was made for a Spring 2018 tour once the base case and single option was confirmed.
December 9, 2017	CEA Agency Meeting – Century Gold Project Update	Commented that Goldcorp will need to clarify within the Project Description what is the Dome operations and what is proposed Century Gold Project.	Goldcorp explained that this has been provided in the current Draft Project Description. The Draft Project Description is prepared, however Goldcorp has determined that it will be held pending the land acquisition process.
December 9, 2017	CEA Agency Meeting – Century Gold Project Update	What Environmental Assessment has the Province raised? What type of Class EA?	Goldcorp explained that an Individual EA is not triggered by the current proposed components and activities, but a Class EA is anticipated for Provincial applications, ECA and CoAs amendments. The construction of onsite roads and electrical corridors are not long enough to trigger a Provincial EA. Class EAs will be aligned with CEAA impact assessment, anticipated Class C.
December 9, 2017	CEA Agency Meeting – Century Gold Project Update	Requested clarification on what the membership and roles of the collaboration and consultation committees are.	The RDA Collaboration Committee membership consists of the leadership of the four RDA signatory communities and two Goldcorp representatives. This committee oversees the implementation of articles under the RDA. The Consultation Committee membership consists of representatives of the four RDA signatory communities that the leadership has appointed and two representatives of Goldcorp. This committee meets monthly and is focused on consultation requirements outlined in the RDA.
December 9, 2017	CEA Agency Meeting – Century Gold Project Update	Is traditional knowledge (TK) included within the PD?	Goldcorp explained that no TK studies are currently available but the site is currently reaching out to the communities for their interest in providing TK work. Goldcorp noted that the Dome Mine has been operating for over 100 years and TK studies will not be similar to other “greenfield” projects and will be unique to this project and area.
February 28, 2018	MECP EA Services Century Gold Project Follow-Up Call	MECP requested clarification on the anticipated class EA level.	Goldcorp anticipates that a level C would be sufficient. Project will also be assessed under CEAA.

Date	Information Presented by Goldcorp	Key Comment and/or Concern Expressed	Goldcorp Response
May 24, 2018	Mattagami River Conservation Authority - Overview of Century Gold Project	Mattagami River Conservation Authority asked if Gold Mine Road would be realigned with the Century Gold Project.	Goldcorp indicated that the current design criteria and project plans are based on maintaining Gold Mine Road.
May 24, 2018	Mattagami River Conservation Authority - Overview of Century Gold Project	Has the Century Gold Project considered the impacts to the South Porcupine residents?	Goldcorp indicated that the site was currently expanding the existing monitoring network to determine existing conditions.

Notes:

Accurate to June 15, 2018; does not include comments on Draft Project Description.
 For ease of reference current names for Provincial Ministries utilized.

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APPENDIX A

PROJECT DESCRIPTION CONTENT GUIDE

PROJECT DESCRIPTION CONTENT GUIDE

	Required Information	Regulation	Project Description Reference
1.	General information and contact(s)		S1
1.1	Describe the nature of the designated project, and proposed location (2 to 3 paragraphs; note that additional location details are to be provided in Section 3).	1 PDR	S1.1 F1-1, F1-2, F1-3
1.2	Proponent contact information	2 PDR	S1.2
1.2.1	Name of the designated project	1 PDR	S1.2
1.2.2	Name of the proponent	2 PDR	S1.2
1.2.3	Address of the proponent	2 PDR	S1.2
1.2.4	Chief Executive Officer or equivalent	2 PDR	S1.2
1.2.5	Principal contact person for purposes of the project description (include name, official title, email address and telephone number).	2 PDR	S1.2
1.3	Provide a list of any jurisdictions and other parties including Aboriginal groups and the public that were consulted during the preparation of the project description. (A description of the result of any consultations undertaken is to be provided in sections 7 and 8).	3 PDR	S1.3
1.4	Other relevant information:		S1.4
1.4.1	Provide information on whether the designated project is subject to the environmental assessment and regulatory requirements of another jurisdiction(s).	4(a) PDR	S1.4.2, S1.4.3 T 1-1, T1-2
1.4.2	Provide information on whether the designated project will be taking place in a region that has been the subject of a regional environmental study. Proponents are advised to contact the Agency during the preparation of the project description for information regarding any regional environmental studies that may be relevant.	4(b) PDR	S1.5
2.	Project Information		S2
	Provide the following information to the extent that it is available or applicable.		
2.1	Provide a general description, including the context and objectives of the project	5 PDR	S2.1
2.2	Indicate the provisions in the Regulations Designating Physical Activities setting out the designated activities that describe the project in whole or in part.	6 PDR	S2.2
2.3	Components and activities Provide a description of the components associated with the proposed project, including:	7, 8, 9 PDR	S2.3
2.3.1	Physical works associated with the designated project (e.g., large buildings, other structures, such as bridges, culverts, dams, marine transport facilities, mines, pipelines, power plants, railways, roads, and transmission lines) including their purpose, approximate dimensions, and capacity. Include existing structures or related activities that will form part of or are required to accommodate or support the designated project.	7 PDR	S2.3.1, S2.3.4 F2-3
2.3.2	Anticipated size or production capacity of the designated project, with reference to thresholds set out in the Regulations Designating Physical Activities, including a description of the production processes to be used, the associated infrastructure, and any permanent or temporary structures.	8 PDR	S2.3.2 T2-1
2.3.3	If the designated project or one component of the designated project is an expansion, the percent of increase in size or capacity from the existing project (relative to the thresholds set out in the Regulations Designating Physical Activities).	6 PDR	S2.3.3 F2-1 to F2-3
2.3.4	A description of all activities to be performed in relation to the designated project.	9 PDR	S2.3.5
2.4	Emissions, discharges and waste Provide a description of any solid, liquid, gaseous or hazardous wastes likely to be generated during any phase of the designated project and of plans to manage those wastes, including the following:	10 PDR	S2.5

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	Required Information	Regulation	Project Description Reference
2.4.1	Sources of atmospheric contaminant emissions during the designated project phases (focusing on criteria air contaminants and greenhouse gases, or other non-criteria contaminants that are of potential concern) and location of emissions.	10 PDR	S2.5.1
2.4.2	Sources and location of liquid discharges.	10 PDR	S2.5.2
2.4.3	Types of wastes and plans for their disposal	10 PDR	S2.5.3
2.5	Construction, operation, and decommissioning and abandonment phases and scheduling. Provide a description of the timeframe in which the development is to occur and the key project phases, including the following:	11 PDR	S2.6
2.5.1	Anticipated scheduling, duration and staging of key project phases, including preparation of the site, construction, operation, and decommissioning and abandonment.	11 PDR	S2.6.1 F2-4, 2-5
2.5.2	Main activities in each phase of the designated project that are expected to be required to carry out the proposed development (e.g. activities during site preparation or construction might include, but are not limited to, land clearing, excavating, grading, de-watering, directional drilling, dredging and disposal of dredged sentiments, infilling, and installing structures).	9 PDR	S2.6.2
3.0	Project Location		S3
3.1	Provide a description of the designated project's location including:	12 PDR	S3.1
3.1.1	Coordinates (i.e., longitude/latitude using international standard representation in degrees, minutes, seconds) for the centre of the facility or, if for a linear project, provide the beginning and end points.	12(a) PDR	S3.1.1
3.1.2	Site map/plan(s) depicting location of the designated project components and activities. The map/plan(s) should be at an appropriate scale to help determine the relative size of the proposed components and activities.	12(b) PDR	S3.2 F2-3
3.1.3	Map(s) at an appropriate scale showing the location of the designated project components and activities relative to existing features, including but not limited to:	12(b) PDR	S3.1.3
	<ul style="list-style-type: none"> watercourses and waterbodies with names where they are known; 		F3-6, F3-7
	<ul style="list-style-type: none"> linear and other transportation components (e.g., airports, ports, railways, roads, electrical power transmission lines and pipelines); 		F1-2, F3-2
	<ul style="list-style-type: none"> other features of existing or past land use (e.g., archaeological sites, commercial development, houses, industrial facilities, residential areas and any waterborne structures); 		F3-1, F3-2
	<ul style="list-style-type: none"> location of Aboriginal groups, settlement land (under a land claim agreement) and, if available, traditional territory; 		F3-4 Appendix C
	<ul style="list-style-type: none"> Federal land including, but not limited to National parks, National historic sites, and reserve lands; 		F1-1 T3-1
	<ul style="list-style-type: none"> nearby communities; 		F1-1, F1-2, F1-3, F3-3a,b, F3-4
	<ul style="list-style-type: none"> permanent, seasonal or temporary residences; 		F3-1
	<ul style="list-style-type: none"> fisheries and fishing areas (i.e., Aboriginal, commercial and recreational); 		F3-7
	<ul style="list-style-type: none"> environmentally sensitive areas (e.g., wetlands, and protected areas, including migratory bird sanctuary reserves, marine protected areas, National Wildlife areas, and priority ecosystems as defined by Environment Canada); and 		F3-8, F3-9 T3-1
	<ul style="list-style-type: none"> Provincial and international boundaries. 		F1-1 T3-1
3.1.4	Photographs of work locations to the extent possible.	12(b) PDR	S3.1.4 Appendix B
3.1.5	Legal description of land to be used for the designated project, including the title, deed or document and any authorization relating to a water lot.	12(c) PDR	S3.2.2

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	Required Information	Regulation	Project Description Reference
3.1.6	Proximity of the designated project to:		
	<ul style="list-style-type: none"> any permanent, seasonal or temporary residences; 	12(d),(e), (f) PDR	S3.1.5 F3-1
	<ul style="list-style-type: none"> traditional territories, settlement land (under a land claim agreement) as well as lands and resources currently used for traditional purposes by Aboriginal peoples; and, 		S3.2.4 F3-4 Appendix C
	<ul style="list-style-type: none"> any Federal lands. 		S3.1.5 T3-1
3.2	Land and Water Use To the extent that is known at this time, describe the ownership and zoning of land and water that may be affected by the project, including the following:		S3.2
3.2.1	Zoning designations.	12(c) PDR	S3.2.1 F3-3a,b
3.2.2	Current land ownership, including sub-surface rights.	12(c) PDR	S3.2.2
3.2.3	Any applicable land use, water use (including ground water), resource management or conservation plans within and near the project site.	12 PDR	S3.2.3
3.2.4	For the proposed construction, operation, decommission and abandonment of a marine terminal, state whether or not the lands are routinely, and have been historically, used as a marine terminal, or are designated for such use in a land use plan that has been the subject of public consultation.	6 PDR	Not applicable
3.2.5	If the project is to take place within the waters or lands administered by a Canada Port Authority under the Canada Marine Act and its regulations. Describe applicable land status and zoning under the Port Land Use Plan.	14 PDR	Not applicable
3.2.6	If the designated project is going to require access to, use or occupation of, or the exploration, development and production of lands and resources currently used for traditional purposes by Aboriginal peoples.	12(e) PDR	S3.2.4 Appendix C
4.0	Federal Involvement – Financial Support, Lands and Legislative Requirements		S4
4.1	Describe if there is any proposed or anticipated Federal financial support that Federal authorities are, or may be, providing to the designated project.	13 PDR	S4.1
4.2	Describe any Federal lands that may be used for the purpose of carrying out the designated project. This is to include any information on any granting of interest in Federal land (i.e., easement, right of way, or transfer of ownership).	14 PDR	S4.2
4.3	Detail any Federal legislative or regulatory requirements that may be applicable, including a list of permits, licences or other authorizations that may be required to carry out the designated project.	15 PDR	S4.3 T1-1
5.0	Environmental Effects The information to be provided in this section is meant to be a brief assessment of the environmental interactions of the project. A detailed examination of the potential environmental effects of the project does not need to be included in the project description. Using existing knowledge and available information provide an overview of the following:		S5
5.1	A description of the physical and biological setting, including the physical and biological components in the area that may be adversely affected by the project (e.g., air, fish, terrain, vegetation, water, wildlife, including migratory birds, and known habitat use).	16 PDR	S5.1 F5-1, F5-2, F5-3

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	Required Information	Regulation	Project Description Reference
5.2	A description of any changes that may be caused as a result of carrying out the designated project to:	17(a),(b), (c) PDR	S5.3.1, T5-1, T5-2, T5-3
	(a) fish and fish habitat, as defined in the <i>Fisheries Act</i> ;		S5.1.7 T5-3
	(b) aquatic species, as defined in the <i>Species at Risk Act</i> ; and,		S5.3.2 T5-2, T5-3
	(c) migratory birds, as defined in the <i>Migratory Birds Convention Act, 1994</i> .		
5.3	A description of any changes to the environment that may occur, as a result of carrying out the designated project, on Federal lands, in a province other than the province in which the project is proposed to be carried out, or outside of Canada.	18 PDR	S5.4
5.4	A description of the effects on Aboriginal peoples of any changes to the environment that may be caused as a result of carrying out the designated project, including effects on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.	19 PDR	S5.5 T5-2, T5-3
6.0	Proponent Engagement and Consultation with Aboriginal Groups Provide the following information to the extent that it is available or applicable:		S6
6.1	A list of Aboriginal groups that may be interested in, or potentially affected by, the designated project, including contact information (location, name, mailing address, email address, and fax and telephone numbers).	19 PDR	S6.1
6.2	A description of the engagement or consultation activities carried out to date with Aboriginal groups, including: names of Aboriginal groups engaged or consulted to date with regard to the project; date(s) each Aboriginal group was engaged or consulted; and, means of engagement or consultation (e.g., community meetings, mail or telephone).	19 PDR	S6.2 T6-1, T6-2, T6-3
6.3	An overview of key comments and concerns expressed by Aboriginal groups identified or engaged to date, including any responses provided to these groups.	3 PDR	S6.2, S6.3
6.4	An overview of information on current use of lands and resources for traditional purposes by Aboriginal groups or peoples (e.g., information provided verbally or in writing, and past or present studies).	19 PDR	S3.2.4 Appendix C
6.5	A consultation and information-gathering plan that outlines the ongoing and proposed Aboriginal engagement or consultation activities, the general schedule for these activities and the type of information to be collected (or, alternatively, an indication of why such engagement or consultation is not required). The proponent is encouraged to provide background information on Aboriginal groups' potential or established Aboriginal or treaty rights. The proponent is also encouraged to provide information on the impact area of the designated project and how it overlaps with uses by Aboriginal groups that have potential or established Aboriginal or treaty rights. This information will be used to facilitate the Agency's understanding of the scope of Aboriginal interests in relation to the designated project, including the potential for impacts on Aboriginal rights and issues of concern.		S6.4 S3.2.4

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	Required Information	Regulation	Project Description Reference
7.0	Consultation with the Public and Other Parties (other than Aboriginal consultation included above) Provide the following information to the extent that it is available or applicable:		S7
7.1	A list of stakeholders that may be interested and potentially affected by the carrying out of the designated project. In addition, please describe consultation activities carried out to date with stakeholders, including: <ul style="list-style-type: none"> names of stakeholders previously consulted; date(s) each stakeholder was consulted; and means of consultation (e.g., community meetings, mail or telephone). 	3 PDR	S7.1, S7.2 T7-1
7.2	An overview of key comments and concerns expressed to date by stakeholders and any responses that have been provided.	3 PDR	S7.3 T7-2
7.3	An overview of any ongoing or proposed stakeholder consultation activities.	3 PDR	S7.4
7.4	A description of any consultations that have occurred with other jurisdictions that have environmental assessment or regulatory decisions to make with respect to the project.	3 PDR	S7.5
8.0	Executive Summary Proponents are to include as part of the project description an executive summary that summarizes the information identified in Sections 1 to 7 of this Guide.		Issued as a separate document
	... the executive summary is to be prepared and submitted to the Agency in both English and French.		-
	1. The project's name, nature and proposed location.		PDS 1.0, 5.0,
	2. The proponent's name and contact information and the name and contact information of their primary representative for the purpose of the description of the project.		PDS 5.0
	3. A description of and the results of any consultations undertaken with any jurisdictions and other parties including Aboriginal peoples and the public.		PDS Tables S-7, S-8
	4. Other relevant information, including (a) the environmental assessment and regulatory requirements of other jurisdictions; and		PDS 10.0
	(b) information concerning any environmental study that is being or has been conducted of the region where the project is to be carried out.		PDS 10.0
	5. A description of the project's context and objectives.		PDS 1.0
	6. The provisions in the schedule to the Regulations Designating Physical Activities describing the project in whole or in part.		PDS 10.0
	7. A description of the physical works that are related to the project including their purpose, size and capacity.		PDS 2.0
	8. The anticipated production capacity of the project and a description of the production processes to be used, the associated infrastructure and any permanent or temporary structures.		PDS 2.0
	9. A description of all activities to be performed in relation to the project.		PDS 2.0
	10. A description of any solid, liquid, gaseous or hazardous waste that is likely to be generated during any phase of the project and of plans to manage those wastes.		PDS 4.0
	11. A description of the anticipated phases of and the schedule for the project's construction, operation, decommissioning and abandonment.		PDS 2.0
	12. A description of the project's location, including (a) its geographic coordinates;		PDS 1.0
	(b) site maps produced at an appropriate scale in order to determine the project's overall location and the spatial relationship of the project components;		PDS Figures S-1 to S-4

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	Required Information	Regulation	Project Description Reference
	(c) the legal description of land to be used for the project, including the title, deed or document and any authorization relating to a water lot;		PDS 3.0
	(d) the project's proximity to any permanent, seasonal or temporary residences;		PDS 3.0
	(e) the project's proximity to reserves, traditional territories as well as lands and resources currently used for traditional purposes by Aboriginal peoples; and		PDS 3.0
	(f) the project's proximity to any Federal lands.		PDS Table S-3, PDS 6.0
	13. A description of any financial support that Federal authorities are, or may be, providing to the project.		PDS 6.0
	14. A description of any Federal land that may be used for the purpose of carrying out the project.		PDS 6.0
	15. Any Federal legislative or regulatory requirements that may be applicable including a list of permits, licences or other authorizations that may be required in order to carry out the project.		PDS 6.0
	16. A description of the physical and biological setting.		PDS 4.0
	17. A description of any changes that may be caused, as a result of carrying out the project, to		PDS 6.0
	(a) fish as defined in section 2 of the Fisheries Act and fish habitat as defined in subsection 34(1) of that Act;		
	(b) aquatic species, as defined in subsection 2(1) of the Species at Risk Act; and		PDS 6.0
	(c) migratory birds, as defined in subsection 2(1) of the Migratory Birds Convention Act, 1994.		PDS 6.0
	18. A description of any changes to the environment that may occur, as a result of carrying out the project, on Federal lands, in a province other than the province in which the project is proposed to be carried out or outside of Canada.		PDS 6.0
	19. Information on the effects on Aboriginal peoples of any changes to the environment that may be caused as a result of carrying out the project, including effects on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes or on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.		PDS 7.0

Notes:

- F Figure number in Project Description
- PDR Project Description Regulations
- PDS Section / Figure / Table number in Project Description Summary
- S Section number in Project Description
- T Table number in Project Description

APPENDIX B

PHOTOGRAPHIC RECORD



Plate 1: Dome Open Pit and Dome Crusher / Administrative Complex looking northeast
(Porcupine Lake and South Porcupine community in far background)



Plate 2: Dome Administrative / Crusher Complex looking southwest
(Dome Open Pit and Dome Processing Plant in background)



Plate 3: Dome Ore Stockpiles, Dome Administrative / Crusher Complex and Partially Reclaimed Dome East Waste Rock Stockpile looking north (community of South Porcupine in far background)



Plate 4: Reclaimed East Waste Rock Stockpile looking northwest (Dome Open Pit, Dome Processing Plant and Gold Mine Road in background)



Plate 5: Dome Processing Plant looking northwest (Open Pit in foreground; Gold Mine Road and historic reclaimed TMA No. 2 and 3 in background)



Plate 6: Dome TMA No. 6 (north dam), Effluent Treatment Plant and South Waste Rock Stockpile looking northwest (South Porcupine River and main Dome site in background)



Plate 7: View southwest across South Porcupine River valley, towards TMA Area No. 6 and Effluent Treatment Plant (proposed West TMA Cell in far background)



Plates 8a,b: South Porcupine River at Pamour Haul Road Crossing looking southeast
(between Dome Ore Stockpiles and South Waste Rock Stockpile)





Plate 9a,b,c: Typical headwater area west of Dome TMA No. 6
(in area of proposed West TMA Cell)



Plate 10: Simpson Lake North Basin looking east (Preston Waste Rock Stockpile background)



Plate 11: Simpson Lake North Basin looking east and South Basin looking southeast
(West Waste Rock Stockpile in background)



Plate 12: Gold Mine Road at Hollinger Haul Road Overpass looking northeast



Plate 13: Edwards Lake looking east (Dome Processing Plant in background)



Plates 14a.b: Porcupine River east of Dome Mine Site (at South Porcupine and upstream of Porcupine Lake)





Plate 15: South Porcupine River east of Dome Mine Site (upstream of junction with Porcupine River which is upstream of Porcupine Lake)

APPENDIX C

**ONTARIO FIRST NATIONS AND TREATIES MAP
AND MÉTIS TRADITIONAL HARVEST AREAS**



First Nations - Grid Coordinates - Reserves or Settlements	First Nations - Grid Coordinates - Reserves or Settlements
Aamjiwnaang - M8 - Sarnia 45	Michipicoten - H7, I6, I7 (Inset C) - Chapeau 61, Gros Cap 49, Gros Cap Indian Village 49A, Mississauga 62
Albany - E3 - Fort Albany 67	Mishkeegogamang - F3, F4 - Grandburgh 63A, B
Alderville First Nation - L10 - Alderville First Nation, Sugar Island 37A	Mississauga Cree - H7 - Mississauga Transfer Lands
Algonquins of Pikwakanagan First Nation - J11 - Pikwakanagan	Mississauga of the Credit - M9 - Now Credit 40A
Anishnabeg of Wabigoon First Nation - G5 - Wabigoon	Mitaingamang First Nation - H2 - Agency 1, Rainy Lake 18C
Anishnabeg of Wauzhushk Onigum - Inset A - Agency 30, Kenora 36B	Mohawks of Akwesasne - K12 - Akwesasne 15, 59
Anishnabeg of Neungashish - Inset A - Agency 30, Big Island 31D, E, F, Big Island Mainland 93, Lake of the Woods 31B, C, G, H, Neungashish 31A, Saug-A-Gaw-Sing 1, Shoal Lake 31J	Mohawks of the Bay of Quinte - L11 - Tyendinaga Mohawk Territory
Aroland - G5 - Aroland Indian Settlement	Moose Cree First Nation - F8, F9 - Factory Island 1, Moose Factory 65
Atikamekw of Anishnawbek - J8 - Whitefish Lake 6	Moose Deer Point - K9 - Moose Point 79
Attawapiskat - D6, D7 - Attawapiskat 91, 91A	Moranav of the Thames - M8 - Moranav 47
Aundock-Orni-Kaning - Inset B - Sucker Creek 23	Munsee-Delaware Nation - Inset D - Munsee-Delaware Nation 1
Batchewana First Nation - J6 - Goulds Bay 15A, Obadjiwan 15E, Rankin Location 15D, Whitefish Island	Muskatam Lake - D3 - Muskrat Dam Lake
Bay of Quinte Mohawk - M9 - Giebe Farm 40B, Six Nations 40	Nalacachewenin - H1, H2 - Agency 1, Rainy Lake 17A, B
Bearfoot Onondaga - M8 - Giebe Farm 40B, Six Nations 40	Naokamegwaning - Inset A - Agency 30, Sabaskong Bay 32C, Whitefish Bay 32A, Yellow Girl Bay 32B
Bearskin Lake - C3 - Bearskin Lake	Neskanaga First Nation - E5 - Neskanaga, Summer Beaver Settlement
Beausoleil - K9 - Chippewa Island, Christian Island 30, 30A	Nibiwanik First Nation - D4 - Summer Beaver Settlement
Big Grassy - Inset A - Agency 30, Assabaska, Big Grassy River 35G, Lake of the Woods 35J, Neungashish 35A, Obabikong 35B	Nigigooiminkaaning First Nation - H2 - Agency 1, Rainy Lake 26A, B, C
Blighgong Nishnaabeg (Pic River) - H5 - Pic River 50	North Caribou Lake - D3 - Weagamon Lake 87
Blindlywabik Zaging Anishnawbek - G4 - Rocky Bay 1	North Spirit Lake - D2 - North Spirit Lake
Bingwi Neysashi Anishnawbek - G4, G5 - Sand Point First Nation	Northwest Angle No.33 - Inset A - Agency 30, Northwest Angle 33B, Whitefish Bay 32A
Brunswick House - Inset C - Duck Lake 75B, Mounbatten 75A	Obashkaandagang - Inset A - Agency 30, Rat Portage 38A
Caldwell - M8, M9 - Subject to settlement signed by Canada March 2, 2011	Ochichagwe wabigooning First Nation - Inset A - Agency 30, The 2011
Cat Lake - E3 - Cat Lake 63C	Ojibway Nation of Saugeen - F3 - Ojibway Nation of Saugeen
Chapleau Cree First Nation - Inset C - Chapleau 75, Chapleau Cree First Nation	Ojibway Nation of Onigaming First Nation - Inset A - Agency 30, Onigaming 35C, D, E, F, H
Chapleau Ojibway - Inset C - Chapleau 61A, 74, 74A	Onelida - M9 - Giebe Farm 40B, Six Nations 40
Chippewas of Georgina Island - K9, L9, L10 - Chippewa Island, Chippewas of Georgina Island First Nation, Chippewas of Georgina Island First Nation Indian Reserve	Onondaga Clear Sky - M9 - Giebe Farm 40B, Six Nations 40
Chippewas of Kettle and Stony Point - M8 - Kettle Point 44	Paya Flat - H5 - Paya Flat
Chippewas of Nawash First Nation - K8, K9 - Cape Croker Hunting Ground 60B, Neysashingmang 27, Saugeen and Cape Croker Fishing Islands 1	Pic Mobert - H6 - Pic Mobert North, South
Chippewas of Rama First Nation - K9, K10 - Chippewa Island, Indian River, Chippewas of Rama First Nation	Pikangikum - E2 - Pikangikum 14
Chippewas of the Thames First Nation - Inset D - Chippewas of the Thames First Nation Indian Reserve	Poplar Hill - E1 - Poplar Hill
Constance Lake - F6, F7, G7 - Constance Lake 92, English River 66	Rainy River First Nation - H1 - Long Sault 12, Manitou Rapids 11
Couchiching First Nation - H2 - Agency 1, Couchiching 16A	Red Rock - H4 - Lake Helen 53A, Red Rock 53
Curve Lake - K10 - Curve Lake 35A, Curve Lake First Nation 35, Islands in the Trent Waters 36A	Sachigo Lake - C2, C3 - Sachigo Lake 1, 2, 3
Deer Lake - D2 - Deer Lake	Sagamok Anishnawbek - Inset B - Sagamok
Delaware - M9 - Giebe Farm 40B, Six Nations 40	Saugeen - K8, L8 - Chief's Point 28, Saugeen and Cape Croker Fishing Islands 1, Saugeen 29, Saugeen Hunting Grounds 60A
Dokis - J9 - Dokis 9	Seine River First Nation - H2 - Seine River 23A, B, Sturgeon Falls 23
Eabametoong First Nation - E5 - Fort Hope 84	Shawanaga First Nation - J9, K9 - Naiscotaung 17A, Shawanaga 17, 17B
Eagle Lake - G2 - Eagle Lake 27	Shelgandah - Inset B - Shelgandah 20
Flying Post - H8 - Flying Post 73	Sheshagwaning - Inset B - Sheshagwaning 20
Fort Severn - B5 - Fort Severn Indian Settlement, Fort Severn 89	Shoal Lake No.40 - Inset A - Agency 30, Shoal Lake 34B2, 40
Fort William - I4 - Fort William 52	Six Nations of the Grand River - M9 - Giebe Farm 40B, Six Nations 40
Garden River First Nation (Kotegunseebe) - J7 - Garden River 14	Slate Falls Nation - F3 - Slate Falls Indian Settlement
Ginoogaming First Nation - G5 - Ginoogaming First Nation	Taykw Tagamou Nation - G8, H8 - New Post 99, 99A
Grassy Narrows First Nation (Asubpeeschosewagong) - F1 - English River 21	Temagami First Nation - I9 - Bear Island 1
Gull Bay - G4 - Gull Bay 55	Tuscarora - M9 - Giebe Farm 40B, Six Nations 40
Henvey Inlet First Nation - J9 - French River 13, Henvey Inlet 2	Upper Cayuga - M9 - Giebe Farm 40B, Six Nations 40
Hiawatha First Nation - K10, L10 - Hiawatha First Nation, Islands in the Trent Waters 36A	Upper Mohawk - M9 - Giebe Farm 40B, Six Nations 40
Iakatewizagagan No.39 Independent First Nation - Inset A - Agency 30, Shoal Lake 34B2, 39, 39A	Wabeseemoong Independent Nations - F1 - Agency 30, One Man Lake 29, Swan Lake 29, Wabeseemoong
Kasabonika Lake - D4 - Kasabonika Lake	Wabosauk First Nation - F2 - Wabosauk 21
Kee-Way-Win - D2 - Keewaywin, Kee-Way-Win Indian Settlement	Wabigoon Lake Ojibway Nation - G2 - Wabigoon Lake 27
Kingfisher - D4 - Kingfisher 2A, 3A, Kingfisher Lake 1	Wahgoshig First Nation - H9 - Abitibi 70
Kitchenuhmaykoosib Inninuwag - C4, D4 - Kitchenuhmaykoosib Aak 84	Wahnapiet - J9 - Wahnapiet 11
Konadaha Seneca - M9 - Giebe Farm 40B, Six Nations 40	Wahta Mohawk - K9 - Indian River, Wahta Mohawk Territory
Lac Des Milles - H3 - Lac Des Milles 22A1, Seine River 22A2	Walker Mohawk - M9 - Giebe Farm 40B, Six Nations 40
Lac La Croix - H2 - Negaugon Lake 25D	Walpole Island - M8 - Walpole Island 46
Lac Seul - F2, G2 - Lac Seul 28	Wapakaka - C4, D4 - Wapakaka 1, 2
Long Lake No.58 First Nation - G5 - Long Lake 58	Wasausking First Nation - K9 - Fanny Island First Nation
Lower Cayuga - M9 - Giebe Farm 40B, Six Nations 40	Wawakapewin - D4 - Wawakapewin
Lower Mohawk - M9 - Giebe Farm 40B, Six Nations 40	Webequie - D5 - Webequie, Webequie Indian Settlement
Machewan - H9 - Machewan 22	Wewunisk - C5, B5 - Wewunisk 90, Pezawuk Indian Settlement
Magnatawan - J9 - Magnatawan 1	Whitefish River - Inset B - Whitefish River 4
Martin Falls - E8 - Martin Falls 65	Whitesand - F4 - Armstrong Settlement, Whitesand
Mattagami - I8 - Mattagami 71	Wikemikong - Inset B - Point Grondine 3, Wikemikong Unceded Reserve
McDowell Lake - E2 - McDowell Lake Settlement	Wunnumin - D4 - Wunnumin 1, 2
	Zhiibaahaasing First Nation - Inset B - Zhiibaahaasing 19, 19A

DISCLAIMER / INFORMATION NOTE

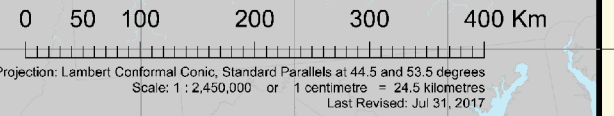
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LEGEND

- ◆ Settlements
- ◇ See First Nations List
- Provisional Algonquin Settlement Area
- First Nation Reserves
- Trans Canada
- Other Highway
- Canada - USA Border
- Provincial Border

NOTES:
 - Map extracted from Ontario First Nations Map.
<https://www.ontario.ca/page/ontario-first-nations-maps>

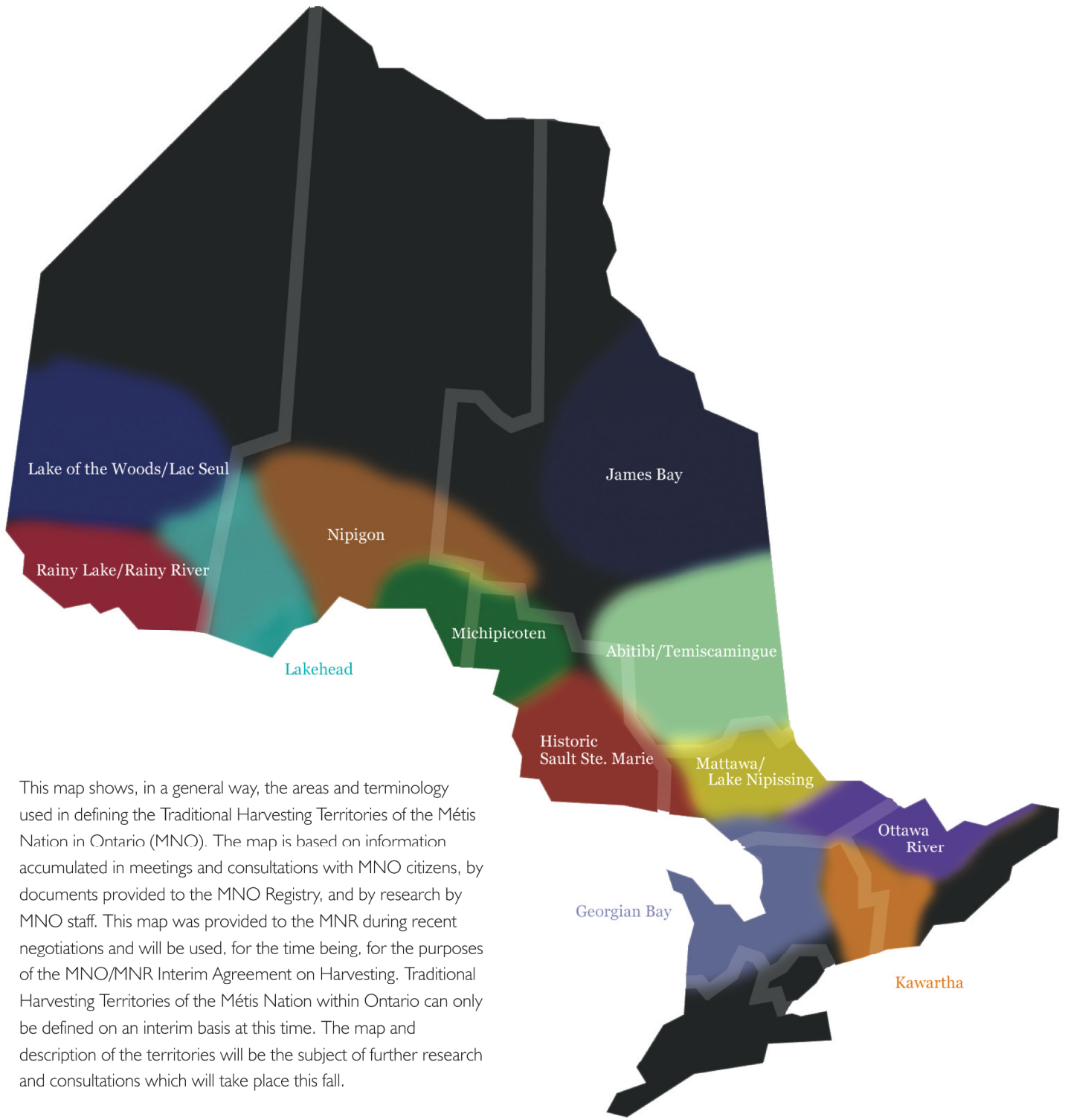


CENTURY GOLD PROJECT

First Nation Reserves and Treaty Lands

PROJECT N^o: TC170506A **FIGURE: App C-1**
 SCALE: AS SHOWN DATE: July 2018





This map shows, in a general way, the areas and terminology used in defining the Traditional Harvesting Territories of the Métis Nation in Ontario (MNO). The map is based on information accumulated in meetings and consultations with MNO citizens, by documents provided to the MNO Registry, and by research by MNO staff. This map was provided to the MNR during recent negotiations and will be used, for the time being, for the purposes of the MNO/MNR Interim Agreement on Harvesting. Traditional Harvesting Territories of the Métis Nation within Ontario can only be defined on an interim basis at this time. The map and description of the territories will be the subject of further research and consultations which will take place this fall.

LEGEND

NOTES:
 - This is the map that underlies the 2004 MNO-MNR Harvesting Agreement and was referred to by the Ontario Provincial Court of Justice in R. v. Laurin, 2007 ONCJ 265. It is what the MNO currently uses for the issuance of MNO Harvester Cards.
<http://www.metisnation.org/governance/reference-documents>



CENTURY GOLD PROJECT

**Métis Nation of Ontario
 Traditional Harvesting Territories**



PROJECT N°: TC170506A

FIGURE: App C-2

DATE: July 2018