



TECHNICAL SUPPORTING DOCUMENT

PUBLIC AND AGENCY CONSULTATION

PROPOSED NEW POST CREEK HYDROELECTRIC PROJECT

Submitted To:

**Coral Rapids Power Inc.
and Ontario Power Generation Inc.**

Prepared By:

SENES Consultants

November 2013


**TECHNICAL SUPPORT DOCUMENT
PUBLIC AND AGENCY CONSULTATION
PROPOSED NEW POST CREEK HYDROELECTRIC PROJECT**

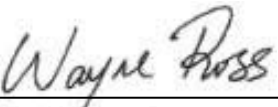
Submitted to:


<p style="text-align: center;">Coral Rapids Power Inc. 11 Elm Street North Timmins, Ontario P4N 6A3</p>	<p style="text-align: center;">Ontario Power Generation Inc. 700 University Avenue Toronto, Ontario M5G 1X6</p>
---	---

Prepared by:
SENES Consultants

Prepared by:  November 2013
Mr. Phil Shantz Date
EA Consulting Team
SENES Consultants

Reviewed by:  November 2013
Ms. Gillian MacLeod Date
Environmental Lead
Ontario Power Generation Inc.

Approved by:  November 2013
Mr. Wayne Ross Date
President
Coral Rapids Power Inc.

Approved by:  November 2013
Mr. Matt MacDonald Date
Project Manager
Ontario Power Generation Inc.

EXECUTIVE SUMMARY

Ontario Power Generation Inc. (OPG) and its partner Coral Rapids Power Inc. (CRP), a wholly owned corporation of the Taykwa Tagamou Nation (TTN), are proposing the development of the New Post Creek Hydroelectric Project (New Post Creek Project or Project). The proposed Project is located in the District of Cochrane within the Geographic Township of Pinard, approximately 75 km north of the Town of Smooth Rock Falls and 15 km north of the former small community of Fraserdale.

The proposed New Post Creek Project was identified by the Ontario Ministry of Energy (2010) as being under consideration as a clean, renewable, cost-effective hydroelectric generation project in “Ontario’s Long-Term Energy Plan”.

In 1963, Ontario Hydro constructed the New Post Creek Diversion Dam on the Little Abitibi River in order to supply additional generating capacity at its Otter Rapids Generating Station (GS). The Otter Rapids GS is now owned and operated by OPG under the authority of a Water Power Lease. The dam allows flows to be diverted along the constructed New Post Creek Diversion Channel and New Post Creek to the Abitibi River upstream of Otter Rapids GS. The New Post Creek Project would take advantage of a portion of this diverted flow descending approximately 66 m between New Post Creek and the Abitibi River, all within TTN Traditional Territory to generate approximately 25 MW of electricity.

The proposed New Post Creek Project is subject to the “Class Environmental Assessment for Waterpower Projects” (OWA, 2012) under the Ontario *Environmental Assessment Act*. This Public and Agency Technical Support Document (TSD) was prepared as part of this Class Environmental Assessment process.

This TSD provides a summary of the public and agency consultation undertaken as part of the Environmental Assessment (EA) of the construction and operation of the proposed New Post Creek Project.

The consultation program included two sets of public open houses held in Smooth Rock Falls and Cochrane (2011 and 2012), public notices and newsletters, a Project website, and the provision of opportunities for on-going consultation. Generally, public interest has been modest with approximately 30 people attending each round of open house.

The two open houses demonstrated that the vast majority of individuals that attended indicated their support for the proposed Project. Two outfitters have expressed concerns about the proposed operating regime. They have submitted their concerns in writing and the CRP/OPG team has provided a response. At least one other individual indicated a concern about the proposed Project but was less concerned following the answers provided. This individual did not submit a Comment Sheet.

Government agency consultation was initiated in 2006, becoming more formal once the EA commenced in 2011. Consultation has been on-going throughout the proposed Project and has focused particularly around issues associated with deregulation of a small area of the Little Abitibi Provincial Park and the proposed GS operating regime.

The public and agency consultation process for the proposed New Post Creek Project has been comprehensive and inclusive of all interested individuals and government representatives. In general, the public has been very supportive of the proposed Project recognizing its energy and economic benefits, as well as its importance to TTN.

No individual has indicated an outright opposition to the proposed Project. A few individuals have expressed some questions and concerns and efforts have been made to address these questions and concerns.

It is our opinion that all public comments raised have been addressed and that comprehensive consultation has taken place with relevant agency and government regulators.

TABLE OF CONTENTS

	<u>Page No.</u>
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION.....	1-1
2.0 REGULATORY FRAMEWORK, PROJECT DESCRIPTION AND PROJECT ACTIVITIES.....	2-1
2.1 Regulatory Framework	2-1
2.2 Project Description	2-2
2.2.1 Alternatives Analysis.....	2-2
2.2.2 Preferred Alternative.....	2-6
2.2.3 Proposed General Layout.....	2-6
2.3 Project Activities	2-25
2.3.1 Construction.....	2-25
2.3.1.1 Inundation and Total Cleared Areas	2-31
2.3.1.2 Requirements for Off-site Land Use and Other Ancillary Features	2-32
2.3.1.3 Construction Schedule and Strategy.....	2-35
2.3.2 Operation.....	2-35
2.3.2.1 Proposed New Post Creek Hydroelectric GS.....	2-35
2.3.2.2 Operating Regime	2-37
2.3.2.3 Transmission Facilities.....	2-40
2.3.3 Decommissioning	2-40
3.0 GENERAL CONSULTATION APPROACH.....	3-1
3.1 Public Consultation Plan	3-1
3.2 Database	3-1
3.3 Project Website	3-1
3.4 Notices and Newsletters.....	3-2
3.5 Other CRP/OPG Consultation	3-3
4.0 PUBLIC CONSULTATION OPEN HOUSES.....	4-1
4.1 Public Open House #1	4-1
4.2 Public Open House #2	4-4
4.3 Summary Of Public Open Houses.....	4-8
5.0 GOVERNMENT AGENCY CONSULTATION	5-1
6.0 SUMMARY AND CONCLUSIONS.....	6-1
7.0 REFERENCES.....	7-1
8.0 ACRONYMS AND ABBREVIATIONS.....	8-1
9.0 GLOSSARY	9-1

APPENDIX A – PUBLIC NOTIFICATIONS

APPENDIX B – NEWSLETTERS

APPENDIX C – PRESENTATION PANELS FROM OPEN HOUSE ROUND #1

APPENDIX D – PRESENTATION PANELS FROM OPEN HOUSE ROUND #2

APPENDIX E – LETTERS OF SUPPORT

LIST OF TABLES

		<u>Page No.</u>
Table 2.1	Proposed New Post Creek Project Hydraulic Characteristics	2-24
Table 2.2	Proposed New Post Creek Project Components.....	2-24
Table 2.3	Quantification of Areas Affected by Proposed Project Components	2-31

LIST OF FIGURES

		<u>Page No.</u>
Figure 1.1	Proposed Project Location	1-2
Figure 1.2	Proposed Project Site Location	1-3
Figure 2.1	Location of Deregulated Area and Replacement Lands.....	2-3
Figure 2.2	Alternative Hydroelectric Development Locations on New Post Creek	2-5
Figure 2.3	Project Location, Site Area Plan and Transmission Line Route	2-7
Figure 2.4	General Arrangement Project Site and Temporary Facilities	2-8
Figure 2.5	General Arrangement and Penstock Profile	2-10
Figure 2.6	Intake, Spillway and Dam General Arrangements.....	2-12
Figure 2.7	Forebay Extent for FSL = 187 m.a.s.l.....	2-14
Figure 2.8	Penstock Profile	2-16
Figure 2.9	Powerhouse General Arrangement.....	2-17
Figure 2.10	Alternative Transmission Line Routes	2-20
Figure 2.11	Proposed Transmission Line Route	2-21
Figure 2.12	Transmission Line Plan and Profile/Interconnection General Arrangement.....	2-23
Figure 2.13	Preliminary Fencing, Signage and Safety Boom Locations.....	2-26
Figure 2.14a	Phase I – Excavations	2-27
Figure 2.14b	Phase II – Removal of Rock Plug.....	2-27
Figure 2.14c	Phase III – Construction of Earth Dam	2-28
Figure 2.14d	Phase IV – Removal of Cofferdam	2-29
Figure 2.15	Powerhouse Excavation behind Earth Plug and Sheet Piling Cofferdam	2-30
Figure 2.16	Proposed Project Access	2-33

LIST OF PHOTOGRAPHS

		<u>Page No.</u>
Photograph 2.1	Bedrock Outcrop	2-11
Photograph 2.2	View Along the Abitibi River Shoreline in the Vicinity of the Proposed Tailrace.....	2-18

1.0 INTRODUCTION

In April 2006, a Memorandum of Understanding (MoU) was signed between Ontario Power Generation Inc. (OPG) and the Taykwa Tagamou Nation (TTN) to jointly explore hydroelectric development opportunities within the Abitibi River drainage basin, north of Highway 11. As a result of this initiative, a potential waterpower generation location was identified on New Post Creek, a tributary of the Abitibi River.

In 1963, Ontario Hydro constructed the New Post Creek Diversion Dam on the Little Abitibi River in order to supply additional generating capacity at its Otter Rapids Generating Station (GS). The Otter Rapids GS is now owned and operated by OPG under the authority of a Water Power Lease. The dam allows flows to be diverted from the Little Abitibi River along the constructed New Post Creek Diversion Channel and New Post Creek to the Abitibi River upstream of Otter Rapids GS. With a drainage area increase of approximately 9.5 times (from 319 to 3,025 km²), mean flow in New Post Creek has increased from approximately 4.4 to 42 m³/s (based on 1975-2012 data), with a 1:100 year flood event flow of 296 m³/s. The New Post Creek Hydroelectric Project (New Post Creek Project or Project), proposed by OPG with its partner Coral Rapids Power Inc. (CRP), a corporation wholly owned by the TTN, would take advantage of a portion of this diverted flow descending approximately 66 m between New Post Creek and the Abitibi River, all within TTN Traditional Territory, to generate approximately 25 MW of electricity, or about 125 GWh annually.

The proposed New Post Creek Project was identified by the Ontario Ministry of Energy (2010) as being under consideration as a clean, renewable, cost-effective hydroelectric generation project in “Ontario’s Long-Term Energy Plan”.

The proposed New Post Creek Project provides some unique opportunities for economic and social development for TTN and its members. TTN’s equity share in the proposed Project will provide a steady flow of revenue to use as a source on which to build future development within TTN Traditional Territory. There will also be opportunities for employment during the Construction Phase of the proposed Project.

The utilization of water resources and the establishment of a GS in an area already manipulated by human influence represent a preferred option over a project proposed on an unaffected watercourse.

The proposed Project is located in the District of Cochrane within the Geographic Township of Pinard, approximately 75 km north of the Town of Smooth Rock Falls and 13 km northeast of Abitibi Canyon GS (Figure 1.1). The proposed New Post Creek Hydroelectric GS tailrace would be located on Abitibi River shore lands with the intake at New Post Creek approximately 3 km southwest of its outlet to the Abitibi River (Figure 1.2). The actual creek channel length between its outlet and the proposed intake location is approximately 5.7 km.

Figure 1.1 Proposed Project Location

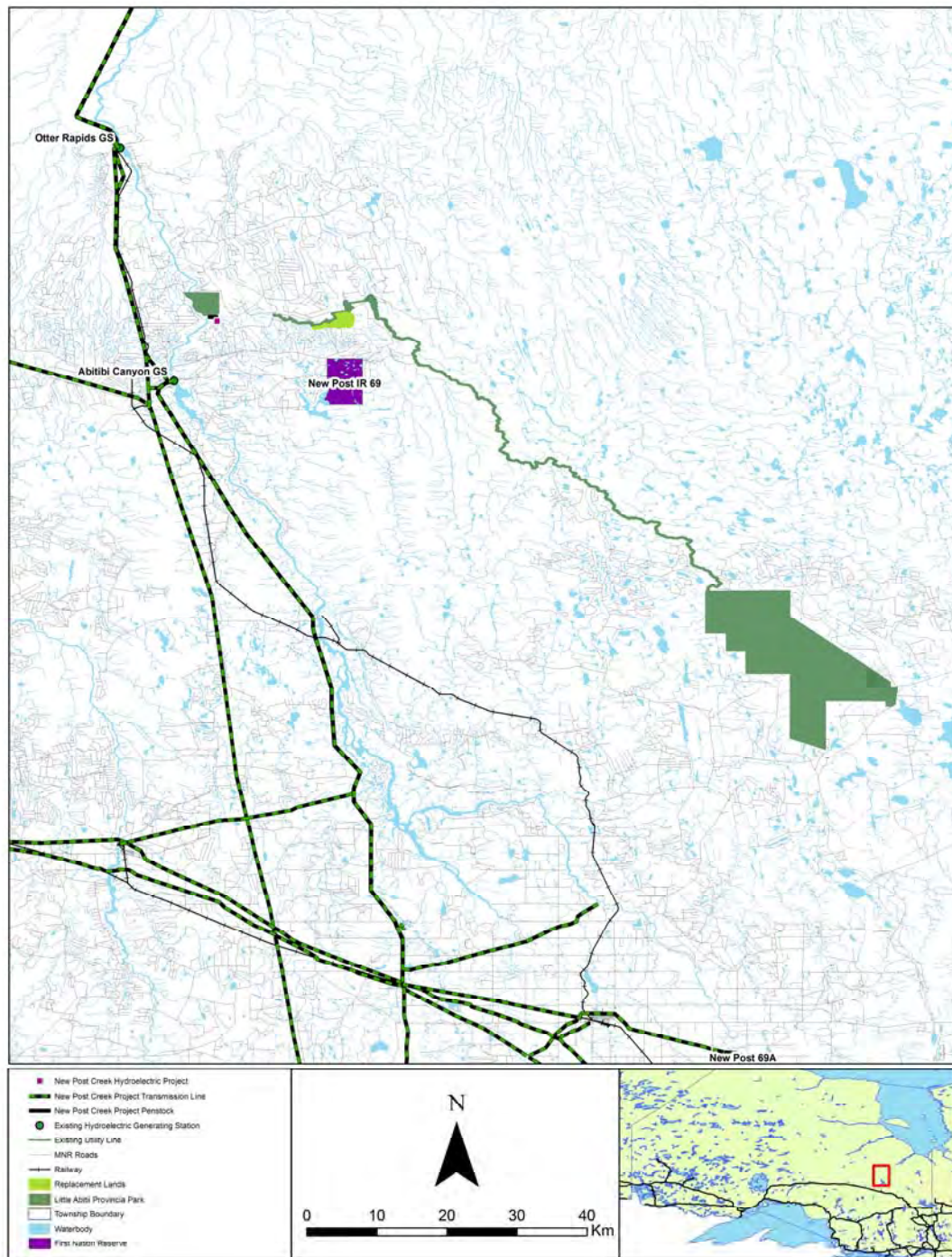
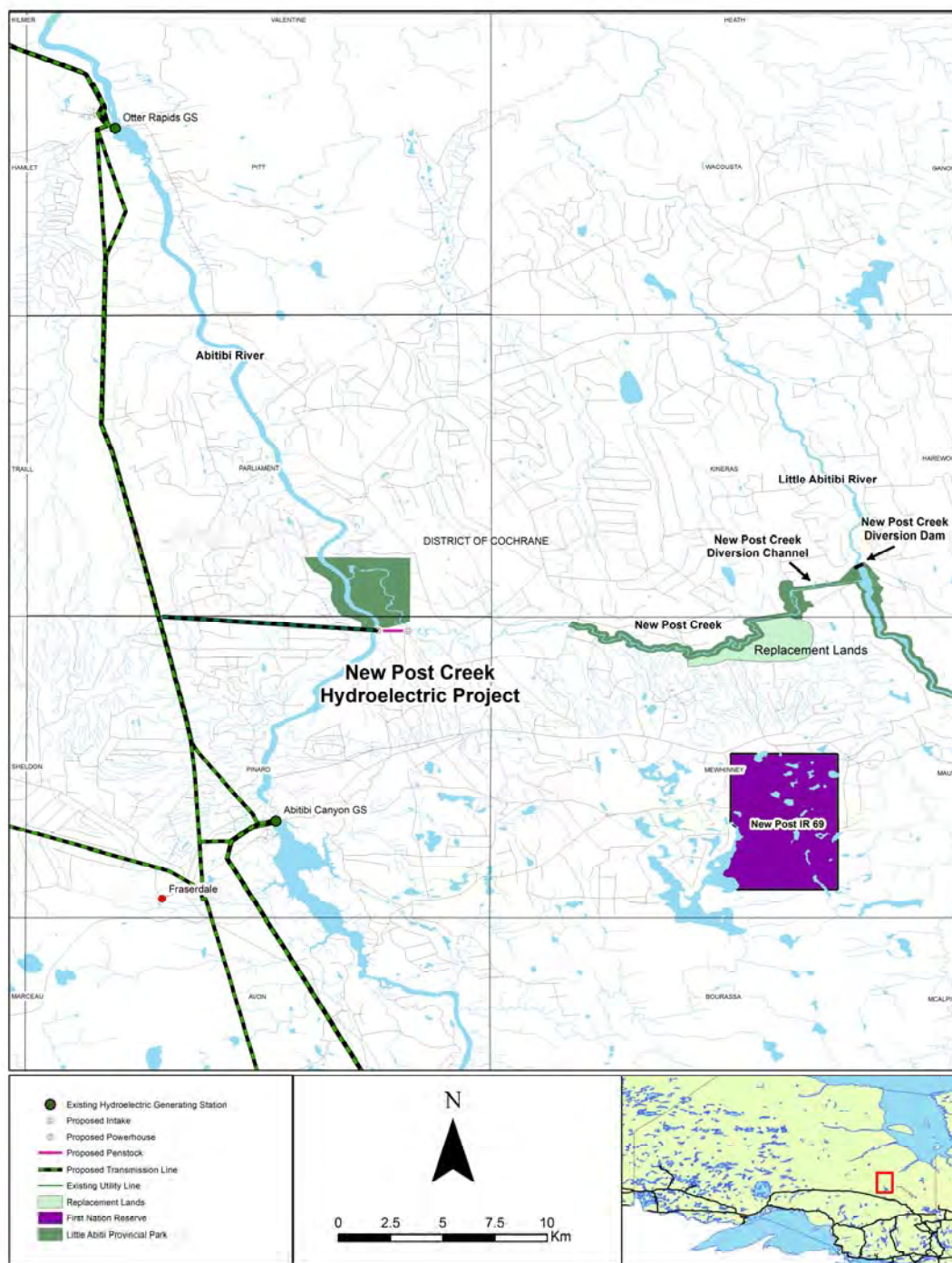


Figure 1.2 Proposed Project Site Location



This Technical Support Document (TSD) provides a summary of the public and agency consultation undertaken as part of the environmental assessment of the construction and operation of the proposed New Post Creek Project. Other TSDs address the aquatic environment, terrestrial environment, cultural heritage, socio-economics and land-use, and First Nations and Métis interests and consultation.

This report was prepared by SENES Consultants (SENES) as a TSD to the Environmental Report (ER), prepared according to the requirements of the Ontario Waterpower Association (OWA, 2012), Class Environmental Assessment for Waterpower Projects (OWA Class EA) under the Ontario *Environmental Assessment Act (EA Act)*. The ER provides a description of the proposed Project, summarizes the overall baseline environmental setting and anticipated environmental effects, recommends appropriate mitigation measures to minimize or obviate these effects, and describes agency, public, and First Nation and Métis consultation.

This Public and Agency Consultation TSD is organized into six chapters:

- Chapter 1.0 **Introduction** – this section;
- Chapter 2.0 **Regulatory Framework, Project Description and Project Activities** – outlines the Environmental Assessment (EA) process and describes the proposed Project in detail;
- Chapter 3.0 **General Consultation** – outlines the consultation plan that was prepared, databases developed and newsletters and notices that were produced;
- Chapter 4.0 **Public Consultation Open Houses and Meetings** – summarizes the various public consultation activities;
- Chapter 5.0 **Government Agency Consultation** – summarizes government agency consultation; and
- Chapter 6.0 **Summary and Conclusions** – outlines the summary conclusions with respect to the proposed Project and public and agency consultation.

Chapters 7.0, 8.0 and 9.0 provide the References, Acronyms/Abbreviations and Glossary, respectively.

The Appendices provide supporting documentation showing the notifications, newsletters and presentation panels.

2.0 REGULATORY FRAMEWORK, PROJECT DESCRIPTION AND PROJECT ACTIVITIES

2.1 REGULATORY FRAMEWORK

In Ontario, proposed waterpower facilities are subject to the *EA Act*. The OWA (2012) developed the OWA Class EA process which was approved by the Ontario Minister of the Environment and the Lieutenant Governor in Council in 2008. The *EA Act* formally recognizes the OWA Class EA process which outlines the requirements for EA approval.

Under the OWA Class EA, the proposed New Post Creek Project is classified as a “New Project on Managed River System”. Provided the requirements of the OWA Class EA planning process are met and a Part II Order request for a “bump-up” to an Individual EA is not made (or denied), a project is considered approved under the *EA Act*.

This Public and Agency Consultation TSD for the proposed Project ER was prepared as part of this OWA Class EA process.

Prior to July 2012, projects like the proposed New Post Creek Project that were subject to the Ontario *EA Act* may also have been subject to the federal EA process under the *Canadian Environmental Assessment Act (CEAA)* if they required federal funding, were located on federal lands and/or required any federal authorization, permit or approval (“triggers” of the federal EA process) enabling the project to be carried out in whole or in part. A “Project Description for Federal Agency Review – New Post Creek Hydroelectric Project” (SENES, 2011) was submitted to the Canadian Environmental Assessment Agency in July 2011 for determination of the applicability of the federal EA process. As part of the federal government plan for Responsible Resource Development, which seeks to modernize the regulatory system for project reviews, the *CEAA* (S.C. 1992, c.37) was repealed when the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)* came into force. The permit as “trigger”-based approach under *CEAA* has been replaced with a project list approach set out in regulation. As the proposed New Post Creek Project has not been listed under *CEAA 2012*, a federal EA is not required. All other applicable federal legislative, regulatory and constitutional requirements must still be fulfilled.

The generation of electricity is not permitted within a Provincial Park as stipulated by the *Provincial Parks and Conservation Reserves Act (PPCRA)*. Since part of the proposed New Post Creek Project was located within Little Abitibi Provincial Park (LAPP), a deregulation of a small area of the specific Project site from LAPP accompanied by a concurrent regulation of suitable “Replacement Lands” was proposed and accepted in accordance with section 9(5)(c) of the *PPCRA*, and the agreed to Ontario Ministry of Natural Resources (MNR) processes for the deregulation. Section 9(5)(c) of the *PPCRA* enables the Lieutenant Governor in Council to dispose of an area in a provincial park that is 50 ha or more if the disposition is being made as part of a transaction that increases the size of the provincial park and enhances ecological integrity. MNR and TTN participated in the identification of Replacement Lands that compensated for the removal of the small portion of land related to the proposed Project. OPG,

CRP and TTN had been working with MNR and Ontario Parks since 2006 to (i) discuss mechanisms for allowing the hydroelectric facility to be built on lands currently within LAPP, and (ii) discuss the required site release process since the existing MNR Site Release Process does not allow for this. OPG, CRP and TTN came to an agreement with MNR and Ontario Parks for a coordinated process to deregulate a small portion out of LAPP and regulate the proposed Replacement Lands into LAPP. This required that the OWA Class EA for the proposed New Post Creek Project be coordinated with the MNR (2005) “Class Environmental Assessment for Provincial Parks and Conservation Reserves” (MNR Class EA). Figure 2.1 shows the location of the Replacement Lands.

Through consultations between MNR, Ontario Parks and the TTN Community, an approximately 440 ha area, immediately south of LAPP in the vicinity of the New Post Creek Diversion Dam, was proposed as the Replacement Lands (Figure 2.1). The transaction was consistent with the provisions of the *PPCRA* that would allow for the deregulation of land to facilitate the proposed New Post Creek Project. The approximately 228 ha of land along New Post Creek within LAPP that was deregulated represents approximately 1.1% of the total LAPP area (20,296 ha). Basically, approximately 228 ha of land (including the creek bed and 120 m on either side of the high water mark) has been removed from LAPP and exchanged for an approximately 440 ha parcel of land referred to as the Replacement Lands. An Ecological Integrity Assessment was undertaken by Beacon (2010) which compared the land removed from LAPP and the Replacement Lands proposed by the TTN Community. Beacon (2010) concluded that the land exchange would increase the size of LAPP and enhance its ecological integrity. However, land deregulation resulted in the disjunction of LAPP as the waterway class portion is no longer a continuous system.

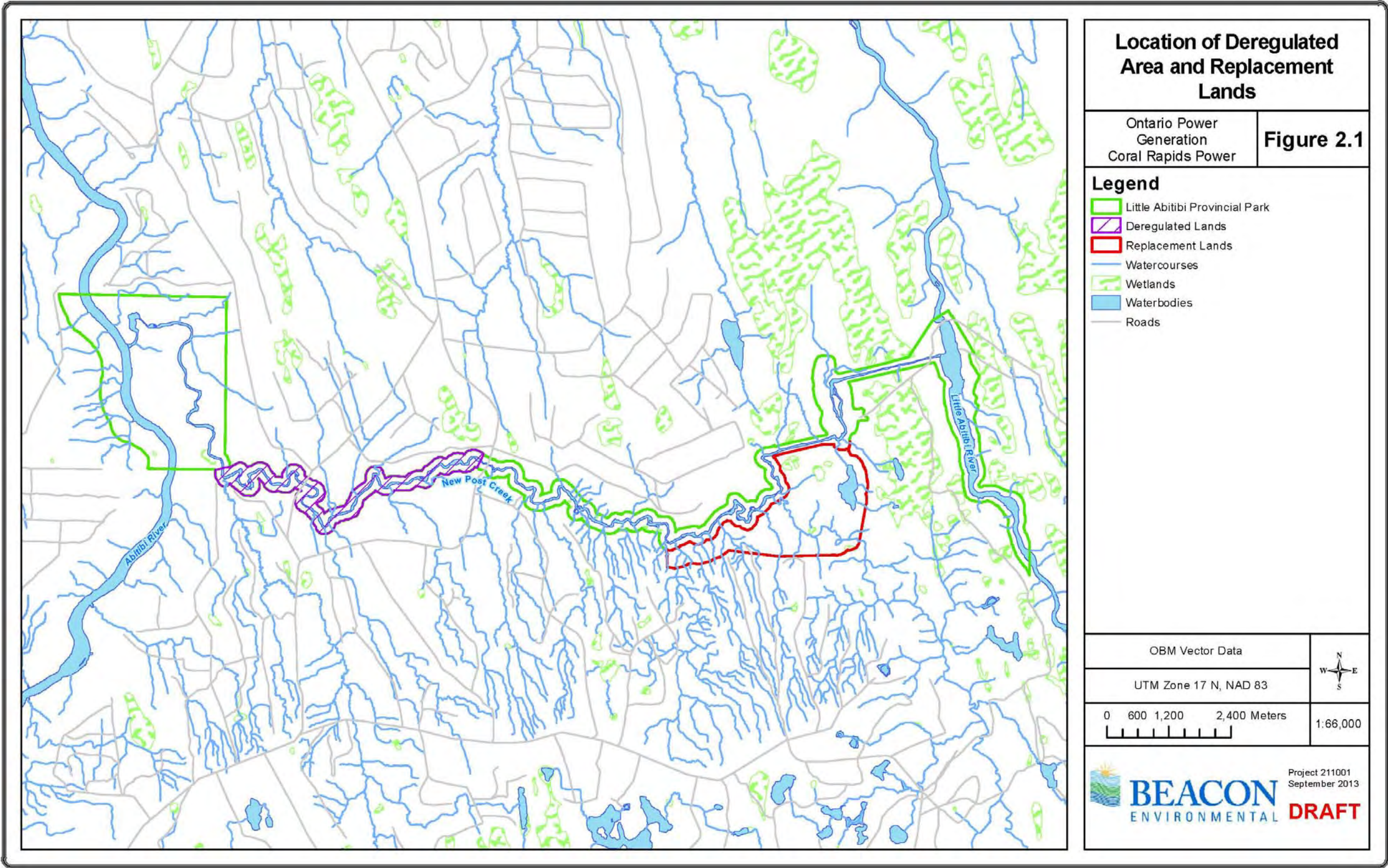
On November 21, 2011, MNR posted a policy proposal on the Environmental Registry for a major land use amendment to re-designate portions of LAPP and the adjacent Northern Resource and Commercial Recreation General Use Area to enable a boundary regulation change. Provincial, regional and local stakeholders were notified by mail of this policy proposal. No comments were received during this involvement opportunity. The land use amendment was approved on April 13th, 2013 and a decision has been posted on the Environmental Registry to reconfigure the park boundary that will increase the overall size and enhance ecological integrity of the park. The MNR boundary amendment process is proceeding internally with an expected date for regulation early in 2014.

2.2 PROJECT DESCRIPTION

2.2.1 Alternatives Analysis

In 1982, Ontario Hydro carried out an assessment of the hydroelectric potential of the diverted flows on New Post Creek. The study focussed on two sections of the creek below the diversion dam, one of which was similar to that presently proposed.

Figure 2.1 Location of Deregulated Area and Replacement Lands



In 1996, Ontario Hydro revisited the site and conducted another review. This study used a head of 68 m, with a plant capacity of 26.4 MW and annual energy production of 175.8 GWh. The location is believed to have been near the New Post Creek waterfalls, located approximately 4.5 km downstream of the proposed Project intake weir location and 1.2 km upstream of the creek outlet to the Abitibi River, but few supporting details are currently available.

In 2006, following the signing of the MoU between OPG and TTN to jointly explore hydroelectric development opportunities within the Abitibi River drainage basin, a concept study was performed for four potential hydroelectric development options (alternatives) on New Post Creek near the waterfalls and within LAPP (KGS Group, 2006). The previous studies maximized the available head by going to local topographic maximums using dykes up to 8 m in height, altering a portion ($<1 \text{ km}^2$) of the watershed and shoreline. The 2006 concept study reduced the proposed forebay elevation to minimize flooding of the existing creek shoreline and the flooded shore area within LAPP, thereby also reducing potential impacts on those portions of the creek with erodible silt and sand banks. The locations of the four alternatives assessed by KGS Group (2006) are presented in Figure 2.2.

A summary description for each alternative is provided below:

- **Alternative 1:** Most of this option is located south of LAPP with only the intake and a small section of penstock located in the Park. The in-stream spillway and intake are located at a bedrock outcrop extending across the creek approximately 4.4 km upstream from the waterfalls.
- **Alternative 2:** Farther north of Alternative 1, Alternative 2 is entirely within LAPP. Compared to Alternatives 3 and 4, a smaller area of the Park would require deregulation. The spillway and intake for Alternative 2 are conceptually identical to Alternative 1. However, there is no exposed bedrock and the presence of an old river meander and oxbow indicates the bank and channel are erodible at this location.
- **Alternative 3:** This option required a smaller length of penstock; however, its location in the middle of LAPP and its proximity to the culturally significant Hudson's Bay Company (HBC) New Post site made it unattractive. The spillway and intake for Alternative 3 are conceptually identical to Alternative 1 and would be located on exposed bedrock.
- **Alternative 4:** This option is located at the northernmost section of the Park, adjacent to the New Post Creek waterfalls. This option had the smallest footprint, but was eliminated due to adverse impact to waterfalls aesthetics. In addition, this option would have required the deregulation of the largest area of LAPP. The spillway and intake for Alternative 4 are conceptually similar to that of Alternative 1.

Figure 2.2 Alternative Hydroelectric Development Locations on New Post Creek



The gross head available for each alternative decreases as one proceeds north along New Post Creek, with the riverbed at Alternative 1 being +59 m above the Abitibi River, while the riverbed at Alternative 4 is in the order of 53 m above the Abitibi River. Based on the technical and environmental data collected and presented in the KGS Group (2006) concept study, preliminary ranking indicated that constructing a project at or just south of the Park (Alternative 1) was the preferred development alternative, with a transmission line built to the west of the proposed powerhouse to connect with the Otter Rapids GS to Abitibi Canyon GS transmission line.

In 2009, a study was performed to update and refine the technical feasibility of the Alternative 1 option based on updated topography and surveys, field exploration and reconnaissance of the proposed site, updated project costs, and updated energy production estimates (KGS Group, 2010). On the basis of the 2009 geotechnical investigation (KGS Group, 2013a, b), as well as the feasibility update and review, the project layout was revised and updated. It confirmed that the hydroelectric development potential of New Post Creek at the preferred alternative location (the current proposed New Post Creek Project) appears technically and economically feasible. In addition to technical benefits, this preferred option (Alternative 1) required the least amount of footprint to be located in LAPP, therefore having the least impact on the Park when compared to the other alternatives.

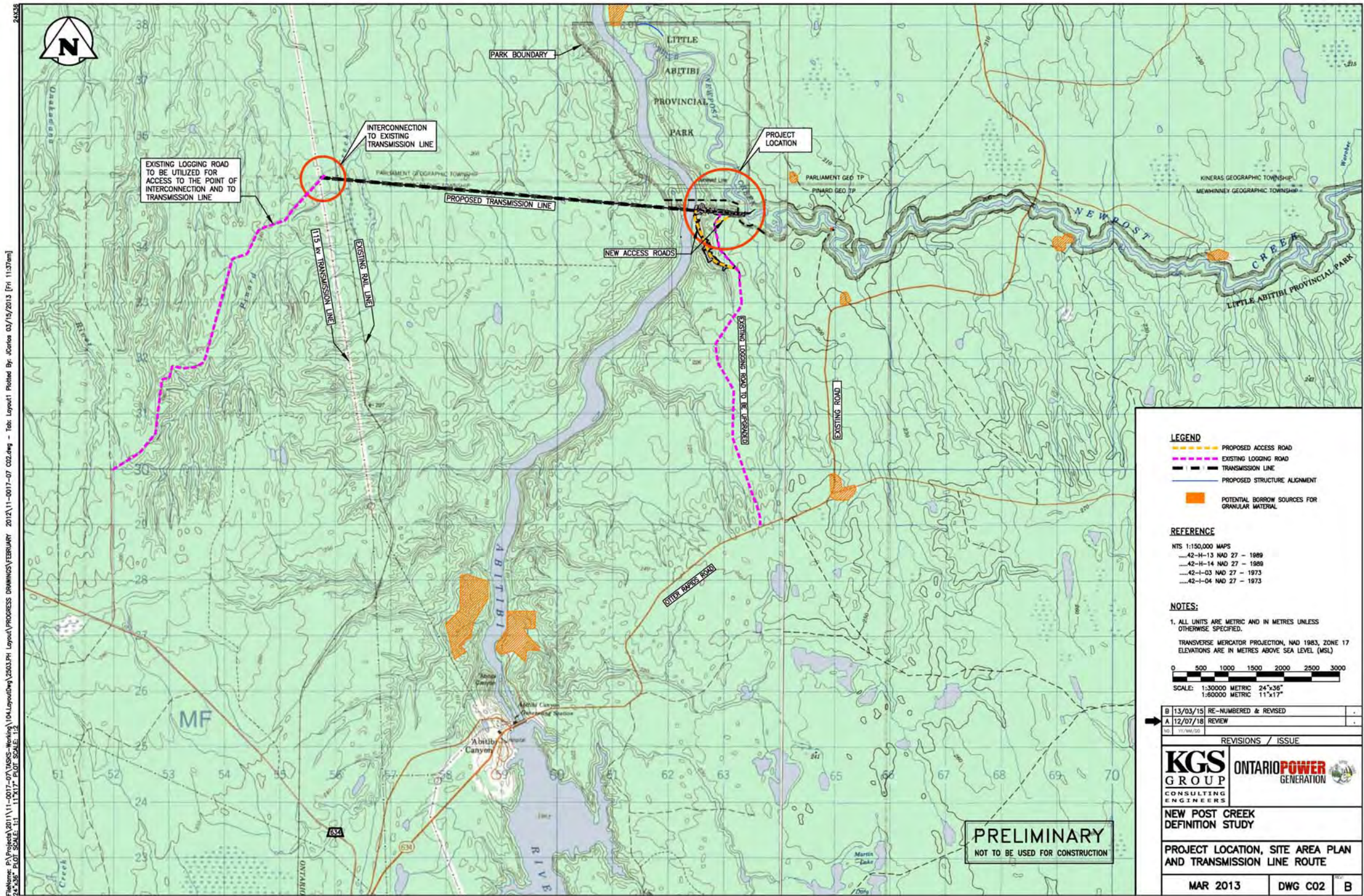
2.2.2 Preferred Alternative

As indicated in Section 2.2.1, Alternative 1 is the preferred alternative. The proposed New Post Creek Project is a 25 MW facility utilizing historic flows diverted from the Little Abitibi River into New Post Creek by the New Post Creek Diversion Dam constructed in 1963 to augment hydroelectric generation at Otter Rapids GS, as well as the natural inflow originating within the New Post Creek catchment area. A small portion of the proposed Project was located within LAPP; however, with subsequent land deregulation and incorporation of the Replacement Lands, all of the proposed Project is located outside of LAPP (see Section 2.1). A transmission line approximately 7 km long will be constructed to the west of the proposed powerhouse to connect to the existing Hydro One Networks Inc. (Hydro One) 115 kV transmission line extending from Otter Rapids GS to Abitibi Canyon GS. The proposed transmission line is also located outside of LAPP.

2.2.3 Proposed General Layout

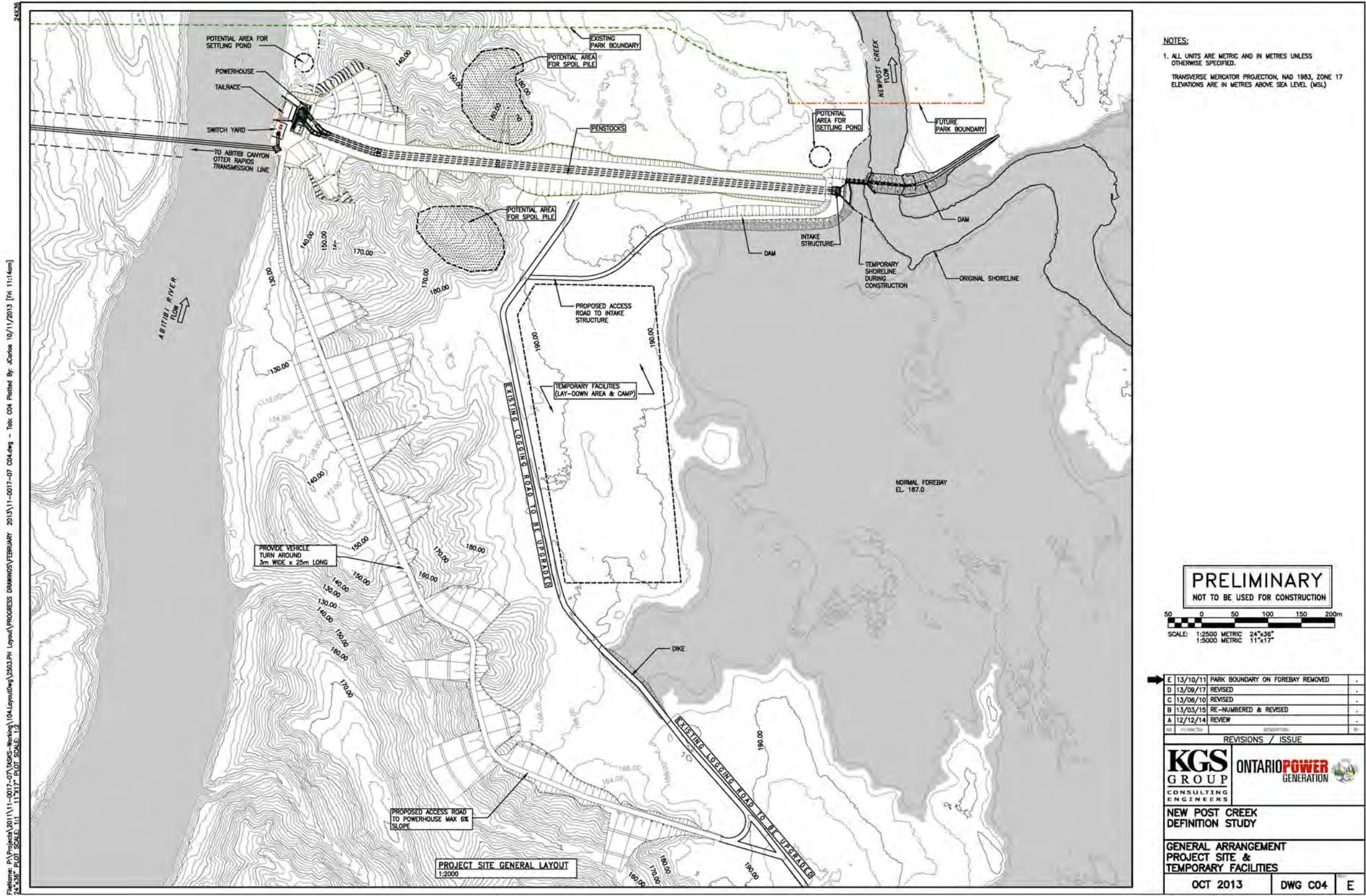
The location of and general arrangement for the proposed Project are shown in Figures 2.3 and 2.4, respectively. However, it should be noted that the final layout of the proposed Project would be selected by the successful Design Build Contractor (DBC), who is chosen based on a competitive bidding process.

Figure 2.3 Project Location, Site Area Plan and Transmission Line Route¹



¹ It should be noted that Figure 2.3 shows the previous LAPP boundary prior to land deregulation and replacement (see Section 2.1).

Figure 2.4 General Arrangement Project Site and Temporary Facilities



The layout will consist of the following primary Project components/structures:

- intake headworks, spillway structures and earth embankments;
- water conveyance system that includes two shallow buried penstocks and potentially a portion of open water canal;
- powerhouse structures equipped with two Francis turbine units;
- tailrace between the powerhouse and the Abitibi River;
- cofferdams at the intake and tailrace during construction;
- substation adjacent to the powerhouse;
- transmission line; and
- interconnection switchyard.

The proposed Project general arrangement, i.e., from the intake structure to the powerhouse, and penstock profile are presented in Figure 2.5.

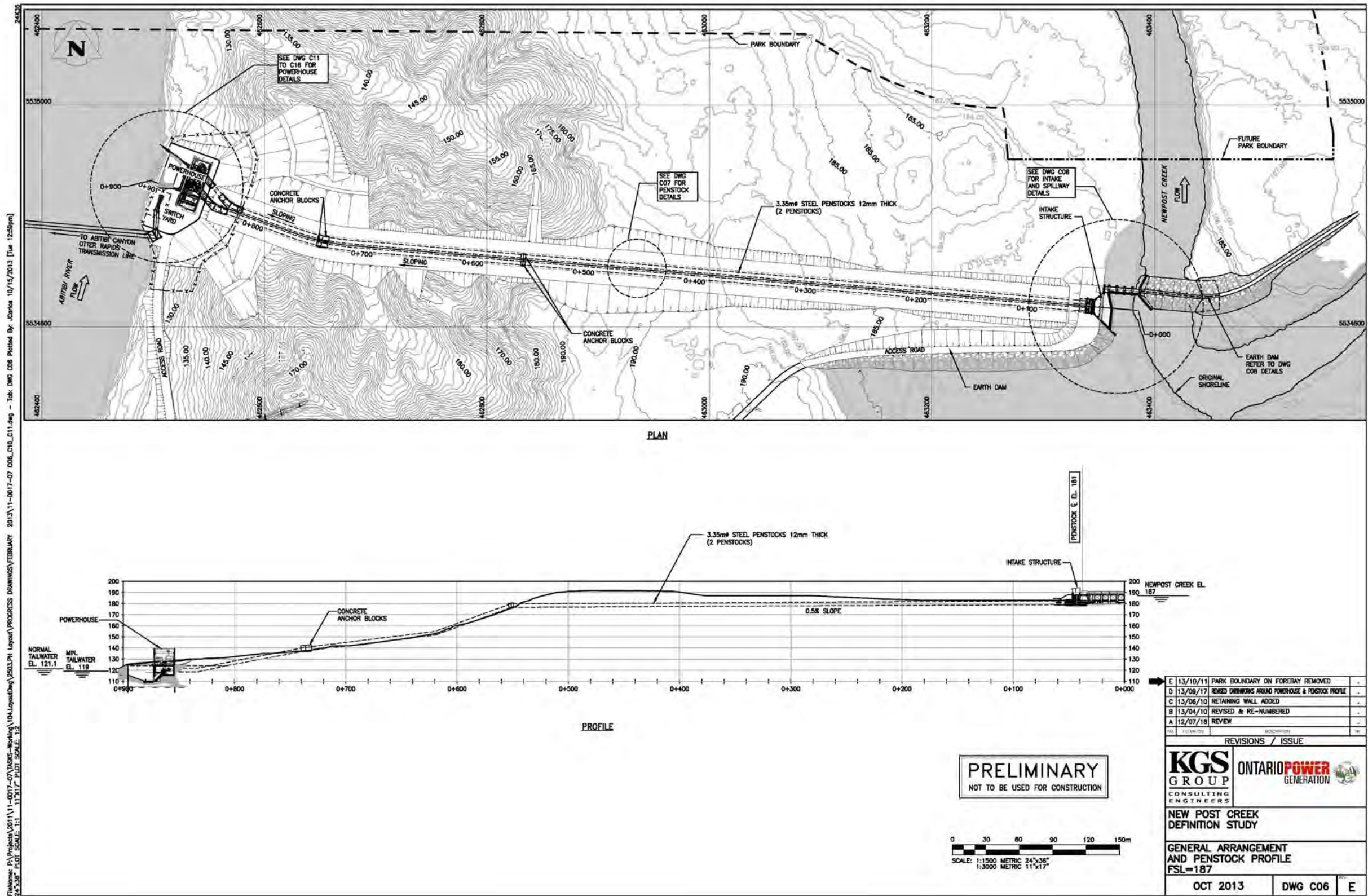
From the intake the flow will be carried by underground penstocks, or with a combination of a power canal and underground penstocks, and discharged through the powerhouse located on the east side of the Abitibi River. The anticipated powerhouse location is approximately 850 m west of the intake and just south of the Park boundary. Over 80% of the penstocks length (and potential power canal), the powerhouse and tailrace will be founded on sands, gravels and till, with bedrock located +15 m below the powerhouse draft tubes and tailrace.

Flow that is not utilized for power production will be discharged over the proposed spillway, taking into account prescribed minimum flow commitments downstream (see Section 2.3.2.2 and Aquatic Environment TSD for a full discussion), particularly at the base of the waterfalls. The proposed Project would utilize the flows and the head drop of approximately 66 m between the forebay elevation upstream of the spillway and the Abitibi River to generate sustainable power in the order of 125 GWh annually.

As presented in Figure 2.3, there are existing access roads south and east of the site that would be upgraded and extended (approximately 2,500 m) to the powerhouse and intake site. The access road to the intake will also serve as a water retaining dyke under high flood flow conditions.

As shown on Figure 2.4, the site will require some areas to be used for construction purposes. This includes settling ponds in the vicinity of the proposed powerhouse and intake for the dewatering of the excavations, an area to be used for lay down, trailers, equipment maintenance and possibly the batch plant, space to accumulate the extra excavated material, and new and upgraded access roads.

Figure 2.5 General Arrangement and Penstock Profile



Intake and Spillway Structures

The proposed intake and spillway structures are located approximately 4.5 km upstream of the New Post Creek waterfalls near a bedrock (granitic gneiss) outcrop that extends across New Post Creek (Photograph 2.1). Due to its competence and good quality, the bedrock will provide an excellent foundation for the intake and spillway, with no settlement concerns

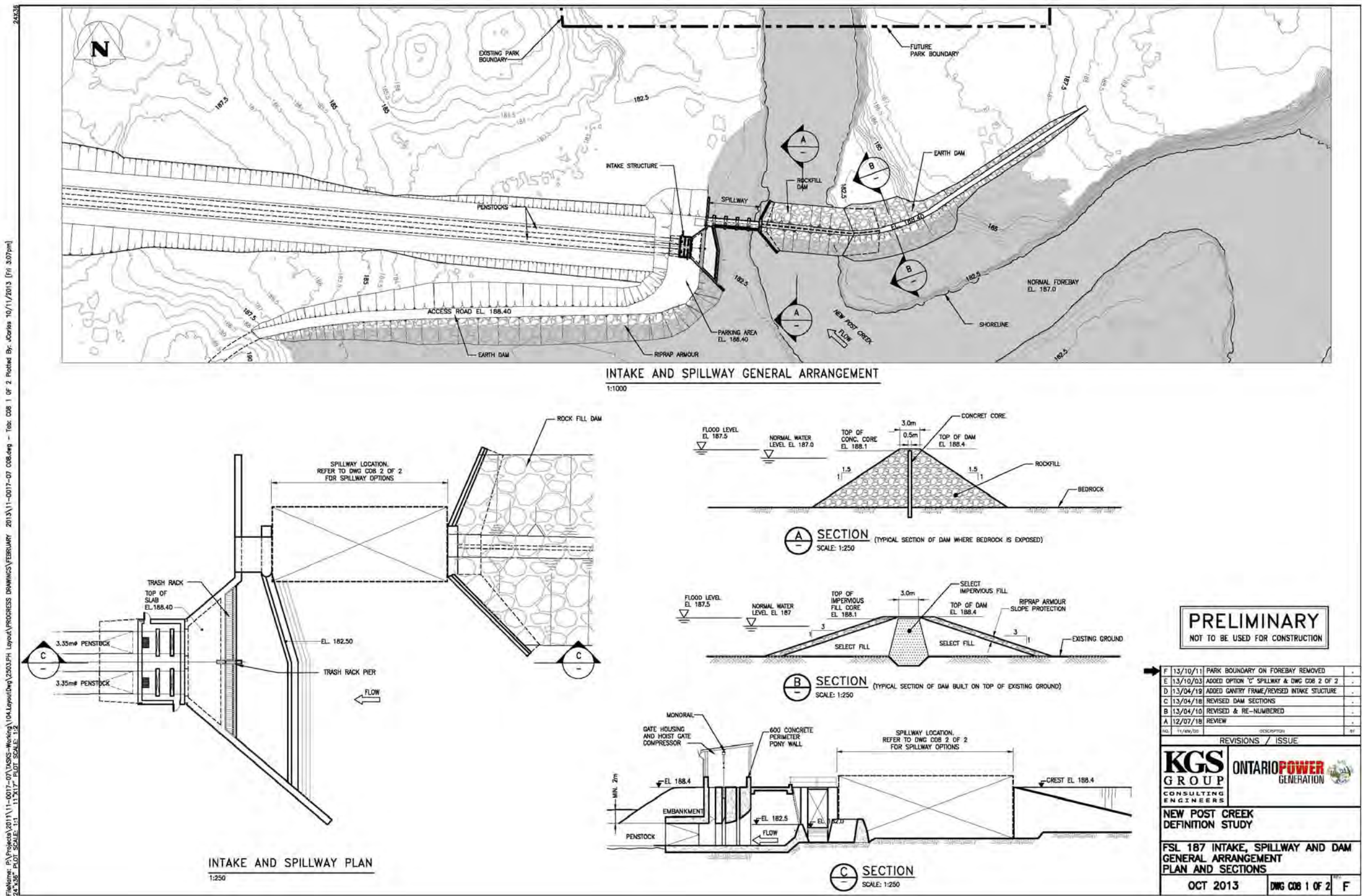
The proposed intake and spillway structures are separate but immediately adjacent to each other. The general arrangement of the spillway and intake structures is presented in Figure 2.6. The intent of the spillway and intake layout selected is to minimize inundation upstream while still ensuring flow withdrawals during all flow periods.

Photograph 2.1 Bedrock Outcrop



The spillway structure consists of gates to maintain minimum flow requirements, gates or devices to manage high flow periods and maintain forebay levels and possibly an additional gate to provide means to evacuate sediment accumulation. The final choice of the type of equipment used will be determined by the DBC but the current concepts consist of either a series of stop logs (see Figure 2.6) or of an in-stream low (3.7 m high) steel crest gate section and an uncontrolled (fixed) concrete weir. The steel crest gate would be an Obermeyer type, which is operated by a pneumatic bladder. The combination of a gated or rubber dam section with a fixed concrete weir results in minimal incremental inundation upstream.

Figure 2.6 Intake, Spillway and Dam General Arrangements



Control of the forebay water level is somewhat different when different types of spillways are considered. In the case of inflatable weirs (Obermeyer style equipment) the forebay water level is maintained automatically by the station controller by establishing a defined water level setpoint. The operator does have access to override the automatic control if necessary from a remote location. The water level is controlled by instrumentation which monitors the elevation of the weir crest and forebay water levels with the relative difference maintained by the operator by adjusting the inflation of the bladders. This difference controls the flows over the spillway to maintain the forebay level.

In case of stop logs the forebay level is maintained by the manual addition and removal of stop logs as required. In this approach the water levels are monitored remotely by the operator and instructions are issued when flows change sufficiently to warrant an adjustment in order to remain within the operating range of the forebay.

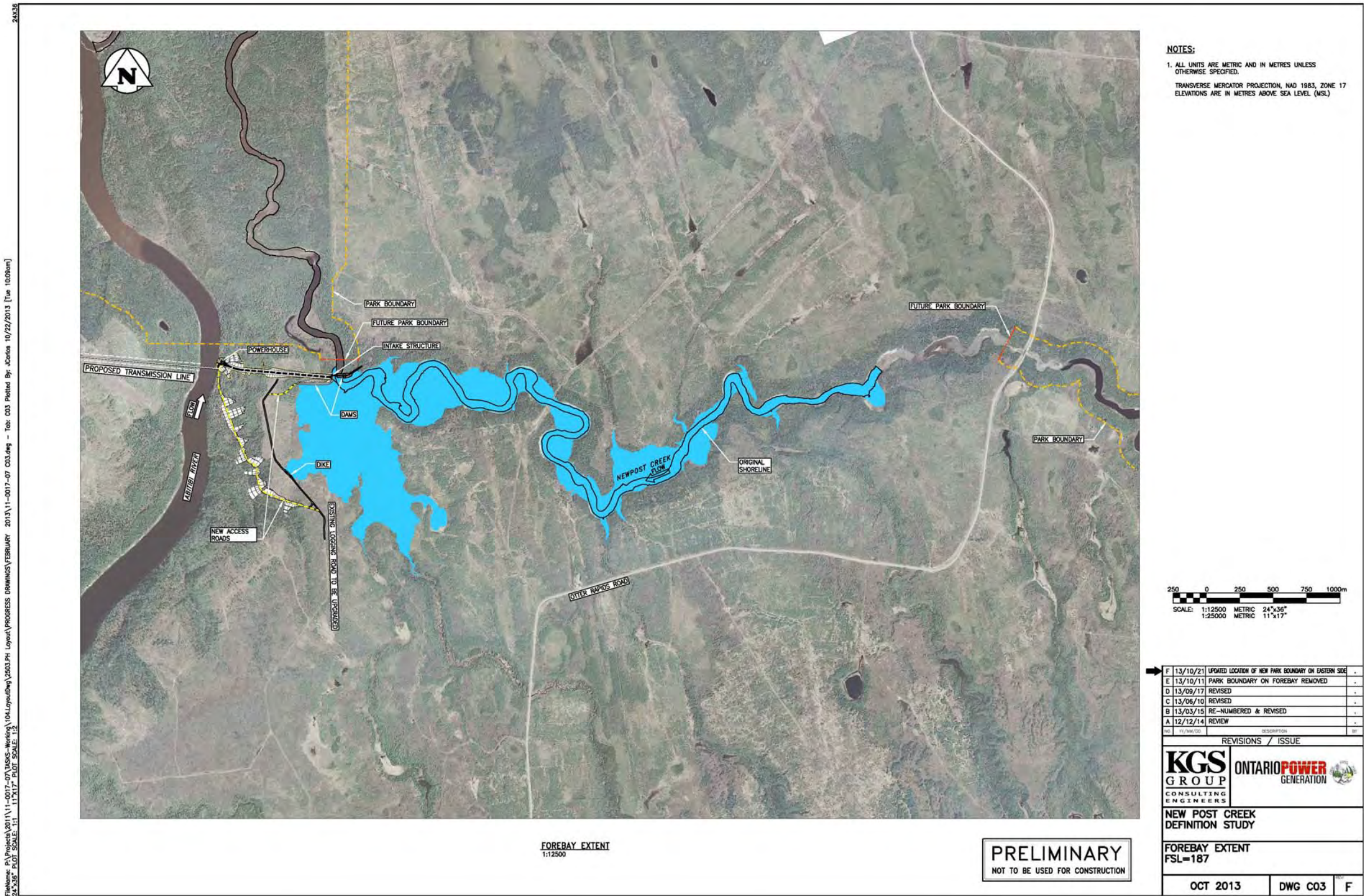
Normal operation of the proposed Project will increase the water level in New Post Creek by 5 m at the intake to a Full Supply Level (FSL) of 187.00 metres above sea level (m.a.s.l.), resulting in a total inundated area of approximately 170 ha (KGS Group, 2012). The upstream extent of the inundated area (approximately 7,166 m from the proposed intake weir location) is limited by the rather steep gradient at the rapids (see Figure 2.7). Under normal operating conditions, the inundated area will occur within the deregulated park area of approximately 228 ha upstream of the proposed Project spillway (Figure 2.1). Most of the flooding outside of the deregulated park area within Crown lands will encompass the unnamed tributary (MNR ID#523) that discharges to New Post Creek approximately 150 m upstream of the proposed Project intake location (Figure 2.7).

Considering the planned dimensions of the spillway the 1:100 year flood levels would be expected to rise by 0.5 m to 187.50 m.a.s.l. The corresponding discharge to the 1:100 year event is 296 m³/s.

A low head earth dam will be constructed on the eastern shore adjacent to the fixed concrete weir to contain flow within the creek channel. The access road and parking areas at the intake and at a location approximately 800 m south of the penstock will also serve as water-retaining dykes under high flow flood conditions. The western edge of the excavation downstream of the spillway will be in rock and not susceptible to erosion. Grouting of the bedrock may be required in areas where the tie-ins for the proposed low head earth dams and spillway structures are on bedrock to minimize the potential of groundwater seepage through the abutments.

The proposed spillway structure will include a gravel trap and a sluice consisting of either a set of stop logs or an Obermeyer style crest gate. In addition, another gate may be required as a sediment sluice and outlet for continued minimum flow requirements downstream to the waterfalls (see Section 2.3.2.2).

Figure 2.7 Forebay Extent for FSL = 187 m.a.s.l.



The intake structure to the two shallow buried penstocks will be protected by trash racks and set to submerge the intake to the penstocks to minimize potential vortex problems. A sediment trap and a low level sluice gate may be included in the design to reduce the potential for suspended sediment and bedload entrainment in the diverted flow to the powerhouse. The sluice gate will allow for flushing of any sediment deposits at the intake during high flows downstream into the existing creek channel with appropriate permits and approvals.

The operation of the sediment gate will consist of opening the gate, likely manually. The actual need to clear the sediment trap would be with a frequency in the order of years if not decades. However, CRP/OPG has considered this issue and is suggesting that a yearly flushing occur during near the start of the freshet. A yearly flushing would reduce the effect of a larger less frequent (e.g., every 10 years) flushing event and may also help in providing sediment bank stabilization for the by-pass reach that otherwise may be starved of sediment.

Water Conveyance System

The proposed water conveyance system includes two buried penstocks with the potential of a portion of open water canal. The two side by side buried steel penstocks, each 3.35 m in diameter, would extend approximately 820 m from the intake structure to the powerhouse. The twin penstock will extend from the intake area sloping very gently for about 650 m with minimal submergence below the forebay level and then drop approximately 61 m over 290 m down to the powerhouse at the Abitibi River shore. A head drop of just over 66 m occurs from the intake on New Post Creek to the Abitibi River. Figure 2.8 shows the penstock profile.

Due to shallow overburden, the penstock would be founded on competent bedrock along its first 150 m length from the intake structure with the remaining portion constructed within overburden. As the overburden sands and silts are erosion prone, the penstock system will be provided with granular drainage layers and drains that can be monitored for leak detection.

The proposed penstocks may be equipped with manhole access along the route near the end of the shallow sloping section and above the steeper portion. Impressed current or sacrificial anode cathodic protection will be provided along the penstock.

Powerhouse Structures

The proposed powerhouse will have a concrete substructure for the turbine draft tubes, with potentially the two identical horizontal Francis turbine/generator sets (approximately 12.5 MW each) and all required ancillary equipment mounted on the powerhouse floor. Each turbine is expected to have Francis type runners with 13 blades operating at nominal speeds between 277 to 360 rpm depending on the final runner dimensions. The turbine units may be mounted near or below the normal tailwater level. The turbine shutoff valves will have gravity trip counterweights located within the powerhouse. The layout and details of the powerhouse facility are presented in Figure 2.9.

Figure 2.8 Penstock Profile

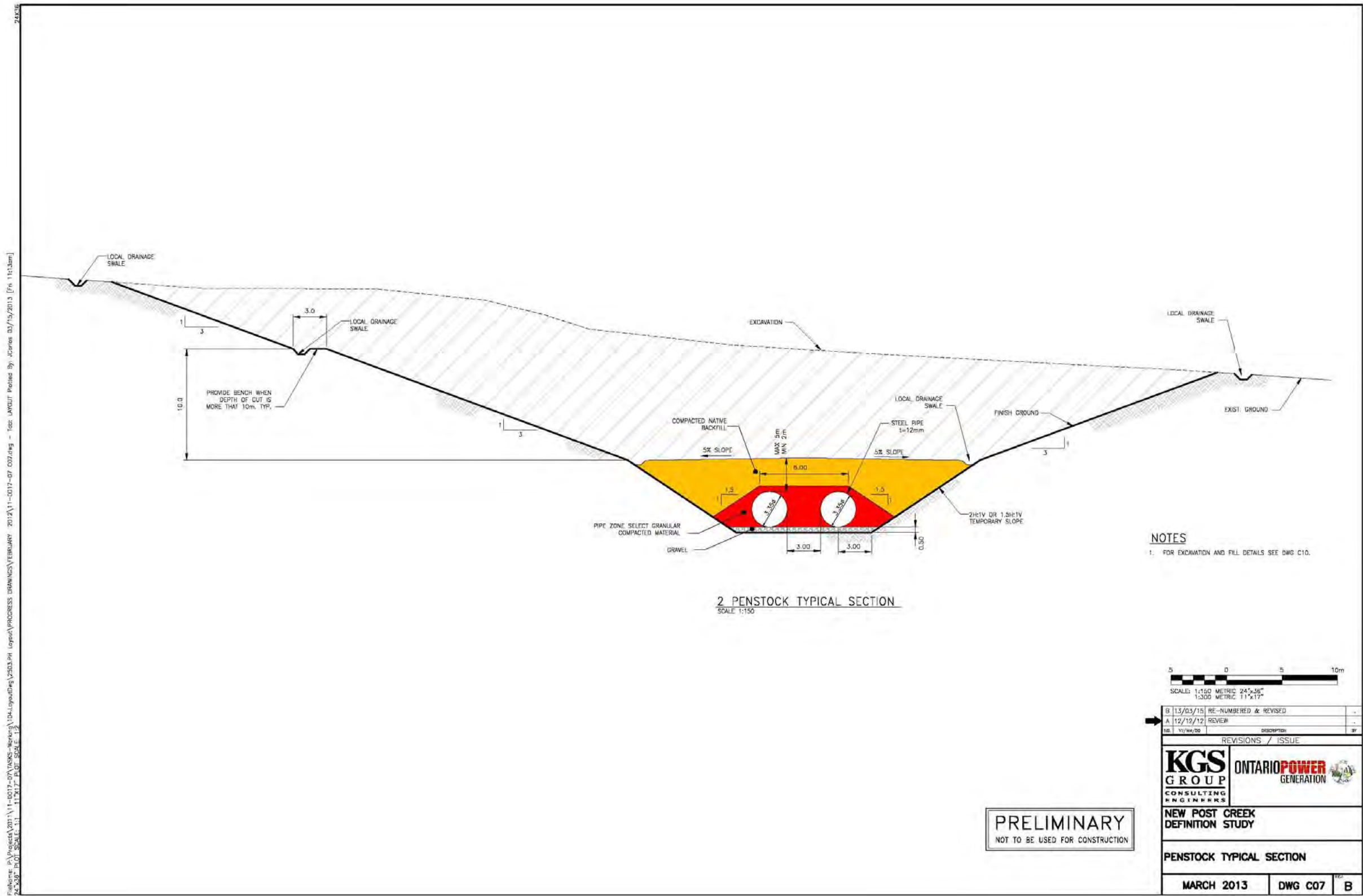
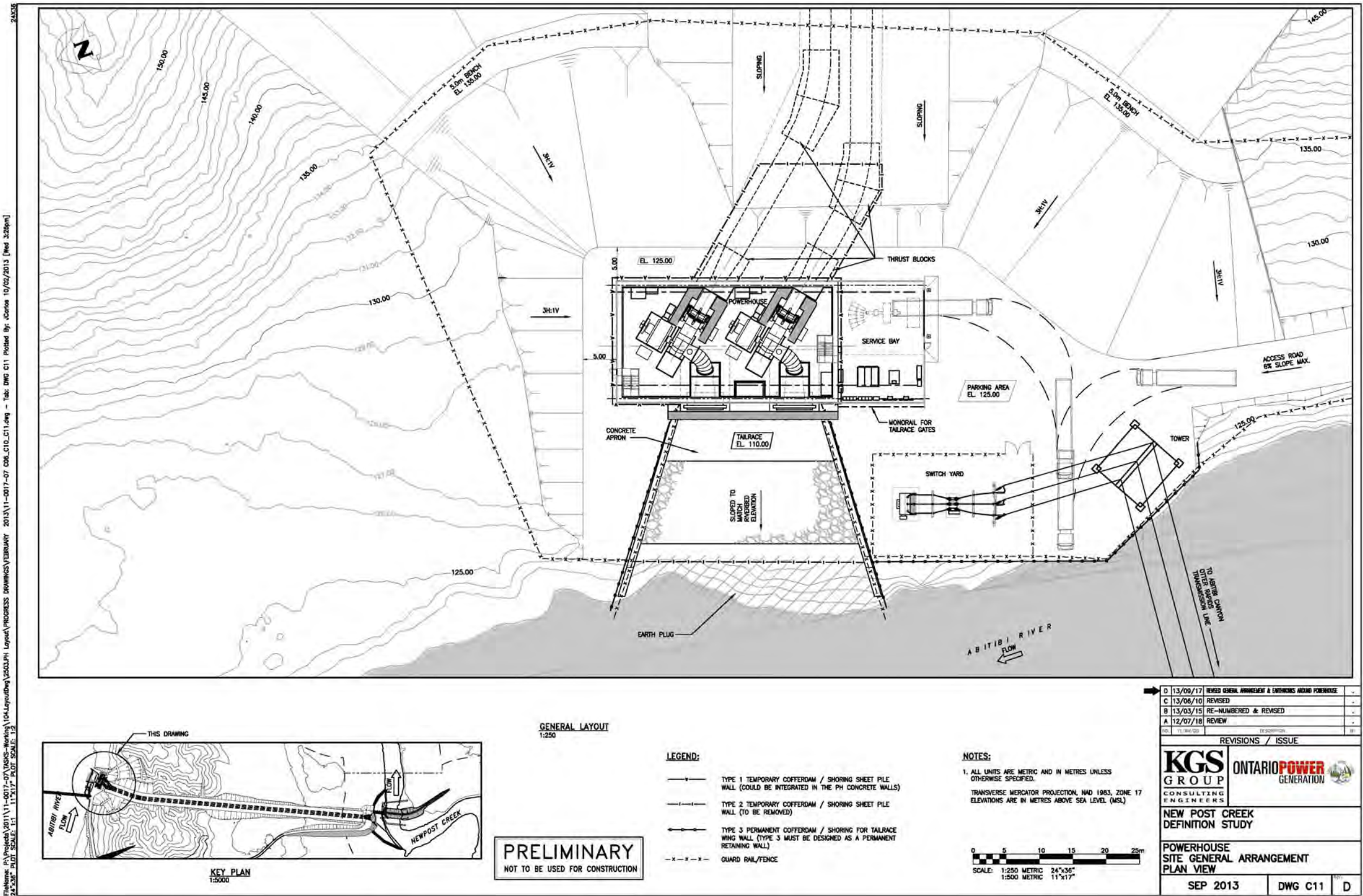


Figure 2.9 Powerhouse General Arrangement



The powerhouse foundation structure will be constructed on a dense sand deposit with sufficient load bearing capacity. The powerhouse and tailrace area will be excavated and founded on dense sands and gravels (Photograph 2.2), with bedrock located more than 15 m below the powerhouse draft tubes and tailrace. The surficial overburden material above the water table is relatively firm and can be excavated and temporarily sloped back at a 2H:1V slope angle, or 3H:1V for slope height higher than 10 m (KGS Group, 2013a). The firm sand deposit will be saturated below the water table reflecting the proximity to the Abitibi River. Therefore, it will be necessary to dewater the area prior to excavating below the water table. Temporary construction shoring will be required due to the depth of the required excavation and groundwater condition, and to minimize the footprint that would be disturbed. The sand deposit can be excavated using standard soil excavation equipment such as bucket excavators, bulldozers and similar equipment, in combination with an appropriate and effective dewatering procedure. A properly designed sheet pile wall, diaphragm wall and/or contiguous bored pile wall can be used to support and dewater the excavation. Groundwater depressurization/dewatering will be required for powerhouse foundation excavation below the river water level. In addition, long-term seepage control, if necessary, can be provided by the use of cut-off walls, low maintenance gravity drains and relief wells.

Photograph 2.2 View Along the Abitibi River Shoreline in the Vicinity of the Proposed Tailrace



Cofferdams

A series of cofferdams will be required during construction at both the intake/spillway structure and at the powerhouse tailrace.

The cofferdams will generally be low structures (1.5 to 2 m) and will be constructed utilizing several methods. The tailrace and powerhouse excavation is expected to be done behind a cofferdam consisting of an earth plug or a section of unexcavated shoreline with sheet piling to improve the water barrier given the existing soil conditions.

At the intake the cofferdams will also be low structures consisting of either rock plugs of unexcavated shoreline on the west side of the creek or rock fill berms that may include some membranes or grouting to improve imperviousness.

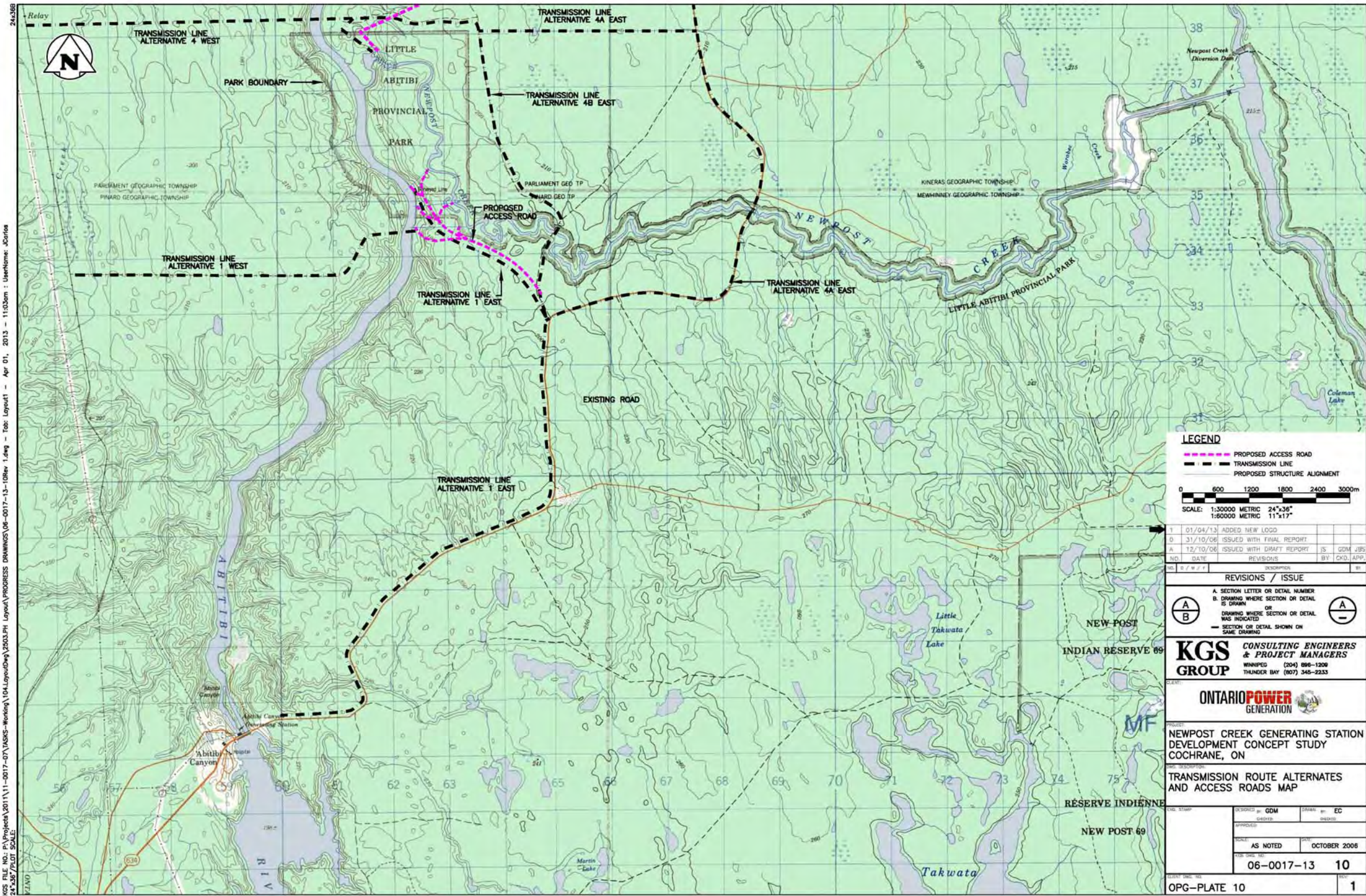
Transmission Line

A number of alternative transmission routes were assessed before selecting the preferred route (see Figure 2.10). The alternate routes shown correspond to the alternative powerhouse locations assessed in 2006 (see Section 2.2.1 and Figure 2.2). Both alternative “east” and “west” routes were considered. The “east” routes would follow access roads back to Abitibi Canyon GS, whereas the “west” routes would cross the Abitibi River and mainly recently harvested forest areas to the existing Hydro One 115 kV transmission line between Abitibi Canyon GS and Otter Rapids GS.

Once Alternative 1 had been selected for the powerhouse location (see Section 2.2.1), a “west” route was selected on the basis that it was the shortest route with fewer bends. The route of this alternative, designated as “Transmission Line Alternative 1 West” in Figure 2.10, was later modified to locate the point of interconnection with the existing Hydro One transmission line at an existing road (see Figure 2.11). The proposed transmission line right-of-way (ROW) is located outside of LAPP.

The proposed single-circuit 115 kV transmission line extending from the powerhouse switchyard directly west over a distance of approximately 7 km to the existing 115 kV Otter Rapids GS/Abitibi Canyon GS transmission line is the technically preferred connection option (see Figure 2.11). Based on available information, the preferred interconnection would involve a T-tap direct with protection provided by a circuit breaker at the new switchyard outside the powerhouse. Based on a System Impact Assessment (SIA) by the IESO (2010), the proposed connection to the existing 115 kV transmission line is acceptable conditional on a number of requirements that have been incorporated by KGS Group (2013c). Based on the Customer Impact Assessment, Hydro One (2010) concluded that the proposed New Post Creek Project can be incorporated with minor impact to Hydro One customers conditional on adherence to the requirements identified in the IESO (2010) SIA.

Figure 2.10 Alternative Transmission Line Routes¹



¹ It should be noted that Figure 2.10 shows the previous LAPP boundary prior to land deregulation and replacement (see Section 2.1).

Figure 2.11 Proposed Transmission Line Route



The proposed transmission line begins at the substation located adjacent to the powerhouse on the east bank of the Abitibi River (see Figure 2.12). The proposed transmission line will cross the Abitibi River and extend in a direct route to a point near the intersection of the existing Hydro One transmission line and access road. The western shoreline of the Abitibi River has a fairly rapid rise in elevation with few changes in elevation to the interconnection point. The proposed transmission line will cross over land that has been subject to previous forest harvesting, some wet areas and the Ontario Northland Railway (ONR) rail line.

The proposed transmission line will be constructed within a minimum 30.5 m (100 feet) wide ROW (KGS Group, 2013d). Any non-compatible trees outside of the 30.5 m ROW will also be removed to prevent their fall over the transmission line conductors. The remaining vegetation (compatible trees, shrubs, understory) will remain intact. The transmission line will consist of untreated wood (likely cedar) poles, aluminum conductor steel reinforced cables, polymer insulators, and optical ground wire, as well as guy-wire and anchors, as necessary. The aerial cable crossing of the Abitibi River is approximately 150 m wide.

Access for transmission line construction is provided by an existing road network between the interconnection point and the west bank of the Abitibi River (see Figure 2.11) considered to be adequate for construction equipment use.

A small switchyard is to be constructed at the point of interconnection which will require the construction of a small access area from the existing road (see Figure 2.12). No permanent roads will be constructed to or along the remainder of the proposed transmission line route. It is expected that the DBC selected for this work will execute the construction of the transmission line in the same manner as other such work in this region with the work likely being done in the winter to minimize the impact on the natural environment, particularly wet areas.

A fibre optic cable will be installed by trenching directly west from the point of interconnection switchyard (see Figure 2.12) to the Ontera-owned fibre optic communications trunk, located within the existing Hydro One transmission line ROW.

The selected DBC will be responsible to secure the necessary licences and permits including those for timber removal along the ROW, watercourse crossing installations and overhead crossing of the ONR rail line. Amendments to the *Navigable Waters Protection Act* under Bill C-38 has resulted in the exemption of construction of any works in, on, over, through or across of water bodies from the provisions of the new *Navigation Protection Act* with the exception of those listed in Schedule 2 of the new Act. The Abitibi River is not listed in Schedule 2.

Proposed New Post Creek Project Technical Summary

The technical details of the proposed New Post Creek Project are summarized in Tables 2.1 and 2.2.

Figure 2.12 Transmission Line Plan and Profile/Interconnection General Arrangement

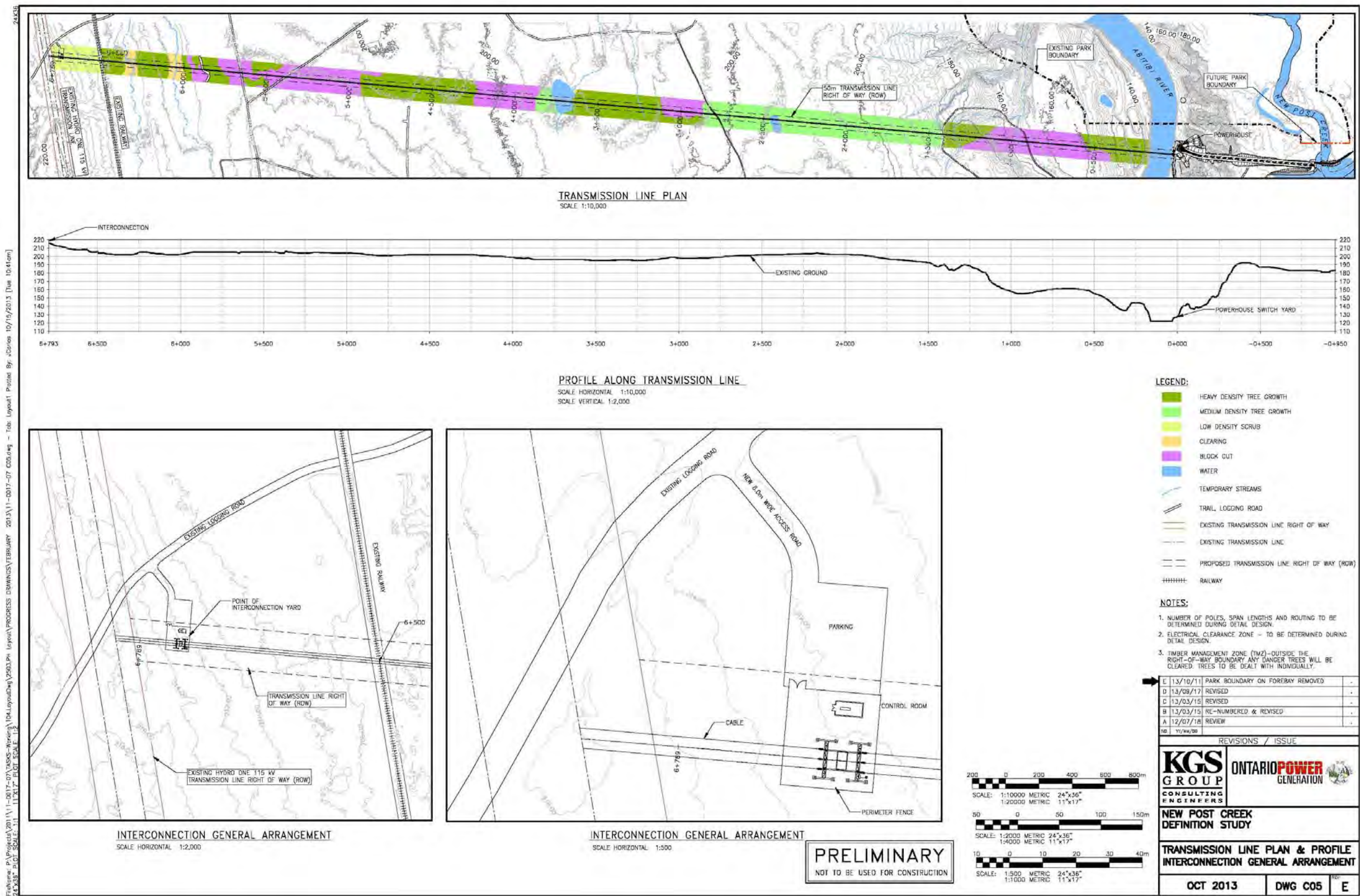


Table 2.1 Proposed New Post Creek Project Hydraulic Characteristics

Gross Head	66 m
Average Annual Flow	~42 m ³ /s (based on 1975-2012 data)
Rated Plant Flow	50 m ³ /s
Minimum Flow: ¹	
<i>May 1 to mid-June</i>	15 m ³ /s
<i>Mid-June to August 31</i>	7.5 m ³ /s
<i>September 1 to 30</i>	5 m ³ /s
<i>October 1 to April 30</i>	2 m ³ /s
Installed Capacity	25 MW
Average Annual Energy Output	125 GWh
Inundation	170 ha

¹ See Section 2.3.2.2 for more details.

Table 2.2 Proposed New Post Creek Project Components¹

<u>Earth Dam</u>	
Type	Earthfill
Crest height	Approximately 7.1 m (varies)
Crest length	Approximately 500 m
Base width	Approximately 76 m
Crest width	3.0 m
Core height	Approximately 6.8 m (varies)
<u>Headpond</u>	
New inundation area	170 ha (extending 7,166 m upstream of dam)
<u>Spillway Structure</u>	
Type	Steel crest gate section with an uncontrolled (fixed) concrete weir or stop logs
Crest height	3.7 m
Length	32 m
<u>Intake</u>	
Number of intakes	Dual
Type	Concrete
Gates/intakes	2
<u>Penstock</u>	
Number of penstocks	2
Type	Steel
Diameter	3.35 m
Length of each penstock	Approximately 820 m
<u>Powerhouse</u>	
Type	Surface
Turbine-generator units	2 x 12.5 MW
<u>Tailrace</u>	
Type	Cut in overburden
Length	30 m

¹ Note: All dimensions provided are approximate and will be finalized during the detailed design of the proposed Project.

The spillway structure will facilitate year-round minimum flow requirements downstream of the spillway to the waterfalls (see Section 2.3.2.2).

Safety devices, such as booms and buoys, will be placed in the water upstream and downstream of the spillway, and downstream of the tailrace. A risk assessment exercise will be undertaken to identify requirements and locations for signs, booms and buoys prior to operations. Figure 2.13 provides preliminary fencing, signage and safety boom locations, but is subject to change based on the risk assessment results.

2.3 PROJECT ACTIVITIES

2.3.1 Construction

It is assumed that a temporary construction camp will be needed to accommodate the workers for the approximate 2 to 3 year construction period. It is anticipated that this construction camp could house up to 100 workers depending on the particular phase of the proposed Project. Workers at the construction camp will not be permitted to fish, hunt or use ATVs while they are working at the camp. A concrete batch plant is also likely to be required in the vicinity of the proposed Project.

Work areas will be cleared of trees and the camp, construction, laydown and concrete batch plant areas would be grubbed and levelled. After construction, the temporary work areas would be re-planted with native tree species and allowed to re-vegetate naturally.

As indicated in Section 2.1, the proposed intake and spillway structures will be constructed adjacent to each other on competent bedrock. At the intake and spillway location, New Post Creek is currently 1 to 4 m deep and approximately 50 m wide.

An initial perspective on what might be the intake and spillway construction method that would be employed by the DBC is presented below. However, it should be noted that the final sequencing of excavations, cofferdams, construction and dewatering methods used would be defined by the successful DBC on the basis of environmental requirements and constraints outlined in the tender documents.

The intake and spillway are integrated, and consequently construction of the two works requires close coordination. The initial intake and west portion of the spillway could be excavated in “dry” conditions behind a rock plug serving as a cofferdam (Figure 2.14a). This rock plug may be topped with a low level berm to achieve the desired freeboard. The access road will form a permanent berm along the west creek edge when completed.

Figure 2.13 Preliminary Fencing, Signage and Safety Boom Locations

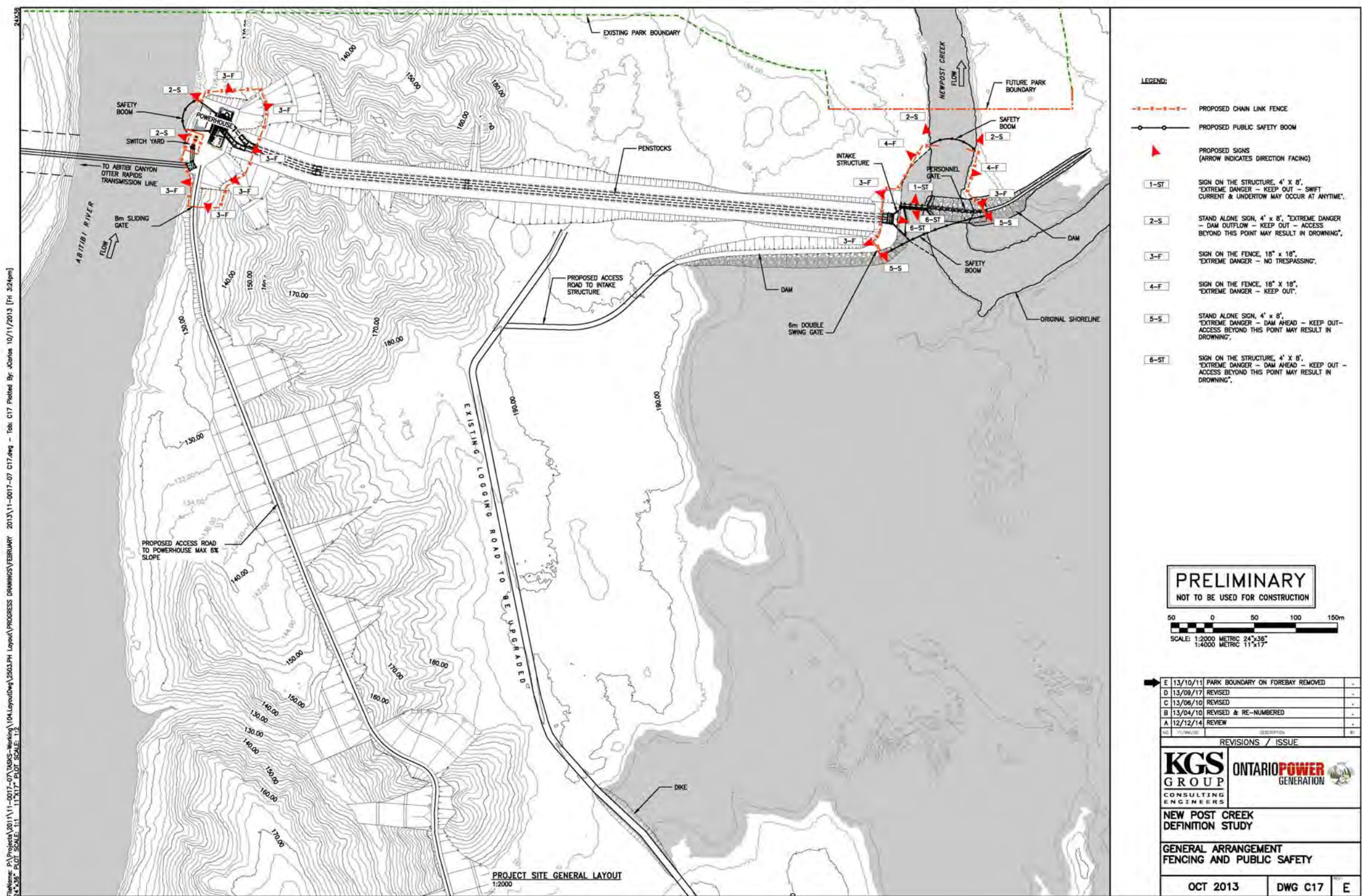
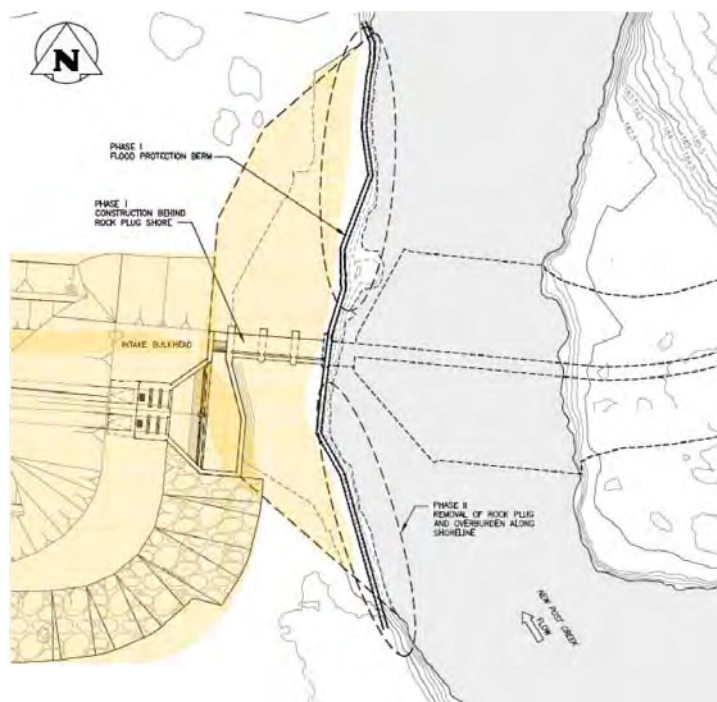


Figure 2.14a Phase I – Excavations



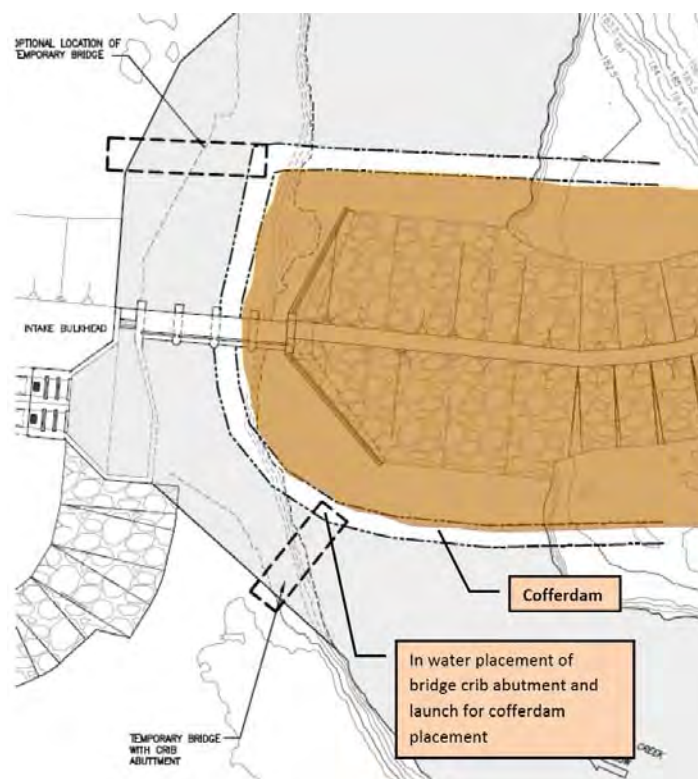
Upon completion of the intake and the concrete spillway work, the cofferdam and remaining rock plug would be removed and the new spillway bay on the west side will be used to pass creek flows downstream (Figure 2.14b).

Figure 2.14b Phase II – Removal of Rock Plug

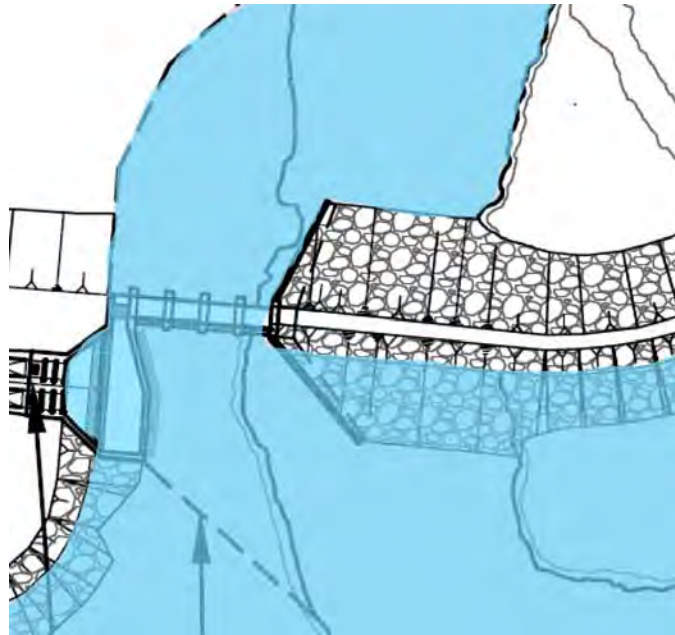


A small cofferdam for the construction of the earth dam could be constructed from the eastern shoreline (Figure 2.14c). It is anticipated that an access trail from Parliament Loop Road to the east abutment could be enhanced to facilitate construction (see Section 2.3.1.2). Alternatively, a temporary bridge could be used to cross the open portion of diverted flow, in combination with limited in-stream work for timber crib abutments. In either case the cofferdam would be quite small, with a dewatered river channel area in the order of 150 m by 50 m using a cofferdam in the order of 1.5 to 2 m high. The cofferdam selected by the DBC is anticipated to be either an in-stream water tight barrier (e.g., aquadam), or constructed of granular fill with a water retaining core (membrane or silty sand). In this phase of construction the spillway concrete components would be completed and the earth dam would be put in place.

Figure 2.14c Phase III – Construction of Earth Dam



In the final phase the cofferdam would be removed and the forebay eventually flooded as shown in Figure 2.14d. The material from the cofferdam may be used as part of the earth dam, or placed in designated spoil piles.

Figure 2.14d Phase IV – Removal of Cofferdam

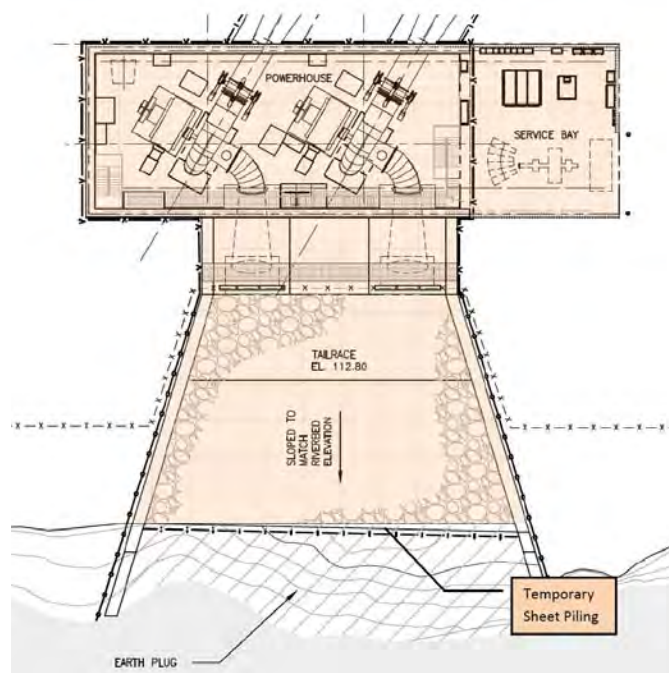
Existing slopes along the Abitibi River and inland at the proposed Project site are relatively steep. Some slope angles were near 1V:1H locally, with overall slopes of 1V:3H, reflecting fairly high strength materials in the *in-situ* sands, silts and tills and limited groundwater pressure influence. There was no evidence of deep-seated slumping or slides occurring at the proposed Project site. For preliminary design purposes, a slope angle of 1V:2H could be used for temporary construction excavations above the groundwater table. As the native soils are highly erodible, extensive stabilization works may be required to prevent vegetation removal, drainage pattern alteration and slope destabilization by heavy loads. Freshly exposed surfaces due to construction activities will require erosion control measures such as granular material placement over exposed surfaces, surface water diversion from slopes and French drain installation for water control in water-bearing granular areas.

The proposed penstocks will extend approximately 820 m from the intake to the powerhouse and will be buried with a minimum 2 m cover to provide thermal insulation during winter operation. Blasting of surface and near-surface bedrock along the initial 150 m distance from the intake will be required to facilitate penstock burial.

Groundwater depressurization/dewatering will be required for powerhouse foundation excavation. This may be achieved by installation of a pump well system or a low permeability seepage barrier such as sheet pile walls or slurry trench to reduce seepage gradients at the downstream face of the natural cofferdam (dyke) around the powerhouse foundation excavation.

Construction of the proposed powerhouse and a portion of the tailrace will be set back from the Abitibi River shoreline (see Figure 2.9). Due to the presence of sand, it is anticipated that a pumped dewatering system possibly combined with a trench cut-off and/or sheet pile cut-off will be required during excavation and construction (Figure 2.15).

Figure 2.15 Powerhouse Excavation behind Earth Plug and Sheet Piling Cofferdam



It is anticipated that tailrace construction in the channel involving overburden excavation would be undertaken after completion of the powerhouse substructure. Once the cofferdam is constructed, the area enclosed by the cofferdam will be pumped dry to facilitate nearshore sediment excavation and extension of the tailrace. The tailrace area will require rip-rap lining to protect against erosion and sloughing of the overburden. Portions of the Abitibi River bank in the immediate vicinity of the tailrace area may also require shoreline rip-rap protection to minimize toe erosion due to scouring and lower bank sloughing along the river bank. A retaining wall or a tied steel sheet pile wall will extend out from the powerhouse draft tube piers to assist in reducing the excavated quantities. After construction completion the final shoreline plug/sheet pile will be removed in the wet.

The final site grading and elevations will be designed to minimize erosion and manage stormwater in accordance with the Stormwater Management Plan prepared by the DBC based on the Ontario Ministry of the Environment (MOE, 2003) report "Stormwater Management Planning and Design Manual" and the conditions of the Environmental Compliance Approval under the *Ontario Water Resources Act*.

Upon construction completion, the site will be restored and re-vegetated based on the Site Rehabilitation Plan.

CRP/OPG currently envisions hiring a DBC that will be responsible for the detailed design and construction of the proposed New Post Creek Project. The DBC would also be responsible for obtaining construction-related permits and approvals that would be required for the proposed Project dependent on the final designs prepared by the DBC. The ER provides a list of anticipated permits and approvals required during construction and operation phases.

Construction is anticipated to last up to 30 months.

2.3.1.1 Inundation and Total Cleared Areas

As indicated in Table 2.2, the proposed Project is projected to result in an estimated inundated area of 170 ha. The inundation is limited to the portion of waterway and land upstream of the proposed spillway structures. The inundated areas associated with the proposed Project are a combination of riparian shoreline and moist forest-covered areas (see Figure 2.7). The total area affected by the proposed Project has been calculated from mapping and by adding up the areas of the various proposed Project components. The total area affected was apportioned into three categories:

1. Permanent Loss of Area – this is a permanent loss of existing habitat to facilities and structures such as a road, dam, powerhouse and transmission line ROW.
2. Temporary Loss of Area – this is a temporary loss of existing habitat associated with land required for the construction period of the proposed Project.
3. New Water Area – is the total loss of terrestrial habitat due to the reservoir inundation and creation of aquatic habitat.

The areas affected by the proposed Project components are presented in Table 2.3.

Table 2.3 Quantification of Areas Affected by Proposed Project Components

Project Component	Permanent Loss of Area (ha)¹	Temporary Loss of Terrestrial Area (ha)¹	Creation of New Water Area (ha)
Camps (maximum)	NA ²	8	NA
Borrow Areas (maximum)	NA	NA	NA
Access Roads	15	9	NA
Intake and Spillway Structures	<1	<1	
Power Canal, Penstocks, Powerhouse and Tailrace	7	7	NA
Switchyards and Substations	<1	<1	NA
Inundation	170 ³	NA	131
Transmission Line ROW (maximum) ⁴	34	NA	NA
Total	225	24	131

¹ Includes New Post Creek, associated tributaries and land base.

² NA=not applicable.

³ Including permanent conversion of riverine habitat to lacustrine habitat.

⁴ Based on 50 m width.

The final total area to be cleared will be refined as detailed design of the proposed Project progresses. It is assumed that all temporary construction roads will be included in the footprint identified in Table 2.3. It also assumes that borrow areas would not be a permanent loss from the land base, since once the resources are depleted, site restoration will be undertaken by the borrow operators.

Vegetation clearing will involve a combination of manual and mechanical approaches. Based on commitments made to the Aboriginal communities, no chemical methods will be utilized for vegetation clearing.

2.3.1.2 Requirements for Off-site Land Use and Other Ancillary Features

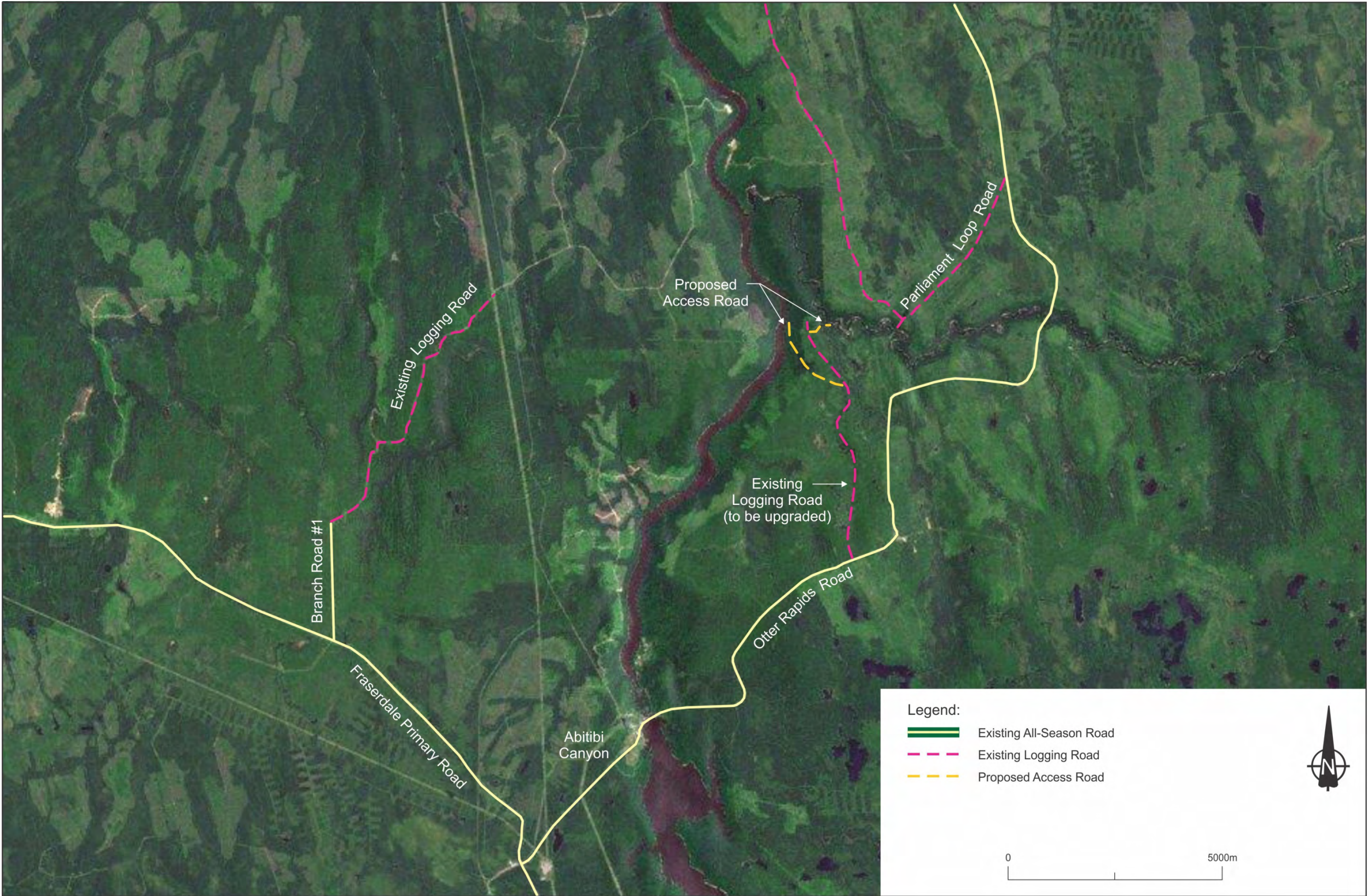
A number of ancillary facilities will be required for the proposed Project, including roads, camps for construction workers, lay-down/construction areas and borrow areas for construction materials.

Existing road access leading to the proposed GS Site is provided by Provincial Highway 634 to the Abitibi Canyon GS and a short section of the Otter Rapids Road (private road) which ends at the Otter Rapids GS (see Figure 2.3).

Further access to the proposed GS Site would be via a disused clay-topped forestry road, approximately 6.1 km in length, that would have to be substantially expanded and reinforced (see Figures 2.3 and 2.16). This is a single-lane road that was constructed by grubbing and heaping the clay soil to create a sub-grade, with portions topped with sand and/or gravel. This road is assumed to have been constructed in 1980 to provide access for harvesting and has subsequently not received maintenance. The existing road would have to be upgraded and extended approximately 530 m and 1,450 m to the proposed intake and powerhouse locations, respectively. This road traverses two permanent unnamed watercourses. In addition, there are six cross-drainage culverts along the operational road to facilitate seasonal water flows and avoid pooling along the road. Culvert replacement will require a permit from the MNR.

CRP/OPG presumes that access to the east bank of the New Post Creek, as may be necessary for the construction of the dam structures, will be provided with a temporary bridge across the creek at the intake area. Other old forestry roads north of the Otter Rapids Road bridge over New Post Creek such as Parliament Loop Road may also provide access to the east bank of the creek. Figure 2.16 shows the potential access route along Parliament Loop Road. These roads would require construction and environmental mitigation measures by the DBC prior to use, and would be upgraded in accordance with permit approvals from MNR.

Figure 2.16 Proposed Project Access



Access to the west bank of the Abitibi River for construction of the proposed transmission line is provided by an existing road network to the interconnection point with the existing Hydro One transmission line and is considered adequate for construction equipment traversal (see Figure 2.11). Proposed transmission line construction is expected to be carried out in winter with no additional access road creation. In any case, the DBC will have to secure permits and approvals regardless of the season of proposed transmission line construction.

The proposed interconnection point will be accessed using the Fraserdale Primary Road (#634), Branch Road #1 and an unnamed operational (logging) road (see Figures 2.3 and 2.16) that bisects the Pinard Moraine Conservation Reserve which was regulated by the MNR in 2005. Upon regulation, this road continues to be used by the forestry industry as per agreement with the MNR. An Area of Concern (AoC) prescription for use of this road during proposed Project construction may be required from the MNR.

A construction camp will likely be required to accommodate up to approximately 100 workers for the three-year duration of proposed Project construction. The DBC will decide the camp location and have responsibility for acquisition of relevant permits. It is anticipated that the camp would be constructed in the Abitibi Canyon GS area where OPG currently has a Water Power Lease and a Licence of Occupation.

Construction staging or lay-down areas will be required and are expected to be close to the main construction sites, e.g., intake and spillway structures, penstocks and powerhouse. These areas will be used for vehicle and equipment parking, materials storage, construction facilities (e.g., site office, security buildings/cabins) and construction access provision. CRP/OPG has identified from a practical perspective a number of areas that will likely be used during construction (see Figure 2.4). In some cases, the DBC will use areas that will be permanently lost to infrastructure for temporary uses. These opportunities can occur during proposed Project staging. The DBC will be required to obtain any land use permits and licences for temporary construction activities.

Borrow areas will be required primarily for the earth fill dam and dykes and other aggregate use. CRP/OPG anticipates that aggregate from the excavations would be used and supplemented from several nearby existing borrow areas for which the DBC would have to secure permits or procurement from those already holding the permits. Figure 2.3 shows the locations of potential borrow areas.

CRP/OPG will provide as much information as possible regarding the locations of borrow areas which might be used during the construction phase. Confirmation of the specific borrow areas is not possible for CRP/OPG to provide at the EA stage, as the final selection and permitting for use of these areas will be the responsibility of the DBC.

Any waste generated by the proposed Project will be disposed of in accordance with federal and provincial requirements.

2.3.1.3 Construction Schedule and Strategy

The proposed New Post Creek Project is currently completing the Definition Phase, which includes:

- completion of the OWA Class EA process;
- selection of a DBC for construction; and
- procurement of a revenue agreement or contract with the Ontario government.

When all Definition Phase tasks are complete, CRP/OPG will complete a final review of the proposed Project and make a decision to proceed into the “Execution Phase”. This phase includes CRP and OPG obtaining respective board approval to proceed.

The earliest time frame in which construction would start is 2014 and it is expected that construction phase will last approximately 30 months.

In the Execution Phase, CRP/OPG currently envisions hiring a third party contractor, i.e., DBC, who will be responsible for the detailed design and construction of the proposed Project. The DBC would be responsible for completing detailed final stamped designs and obtaining all construction-related permits and approvals, e.g., Permits-to-Take-Water for cofferdams and construction-related activities, road use and watercrossing approvals, aggregate permits, etc.

CRP/OPG is committed to working with federal and provincial agencies to address information requirements related to construction and operation approvals or authorizations.

At this point, CRP/OPG does not know the specific equipment that will be required for the proposed Project; however, it is likely that it will include typical construction equipment associated with large-scale civil works.

CRP/OPG anticipates that explosives will be required during construction. All necessary permits will be obtained by the DBC, who will also comply with all legal requirements in connection with the use, storage and transportation of explosives, including, but not limited to, the *Canadian Explosives Act* and the *Transportation of Dangerous Goods Act*. Environmental monitoring during construction will also occur to ensure commitments in the ER and other permits are being followed as intended.

2.3.2 Operation

2.3.2.1 Proposed New Post Creek Hydroelectric GS

Operation of the New Post Creek Diversion Dam has been designed in a manner which requires minimal intervention by OPG personnel. Since 1974, the dam has been operated by leaving the stop logs set at elevation 218.80 m to maximize diversion flow while eliminating the need for ongoing log operations at the dam (OPG *et al.*, 2006). When the headwater exceeds this

elevation, water spills over the stop logs and flows downstream along the old channel of the Little Abitibi River.

Operation of the proposed New Post Creek Hydroelectric GS will be unmanned. No permanent staff will be stationed at the facility. Operating and maintenance personnel will visit the site only to perform specific periodic routine inspection and servicing tasks, or to deal with necessary investigations and repairs, when these are required.

Once placed into service, the proposed GS will be operated from the OPG North East Control Centre (NECC) in Timmins. The station will be monitored on a continuous basis by OPG operators from a control room where all North East Plant Group units are controlled. As well as monitoring the operation of the station, the NECC control room operators will initiate such operations as starting, synchronizing and stopping the turbine generators and adjusting their loads, opening and closing sluice gates as required to manage the forebay operations and downstream flows, and responding to malfunctions of the equipment brought to their attention.

Maintenance of the trash rack and intake, such as removal of timber debris, will be performed manually or with mobile equipment from the intake deck. There is an option to add automated equipment for this activity in the future.

The intake bay for each penstock will have self-closing vertical lift gates to ensure that the penstocks and powerhouse can be safely isolated and dewatered under all conditions.

Maintenance of the draft tubes or turbines will require the use of a draft tube bulkhead system. Consequently, the powerhouse will be equipped with one set of draft tube bulkhead gates (for one unit at a time), with the gates to be installed using a monorail hoist travelling across the tailrace deck. The gates will be stored in the gate slots above tailwater level.

The base case operating scheme, as outlined in the feasibility update report (KGS Group, 2010), involves the passage of minimum flows downstream to the New Post Creek waterfalls and the remaining flow diverted from the creek and passed through the turbine units to generate electricity. During high flow periods, flow diversion will meet the maximum flow capacity of the turbines. Plant capacity will be 50 m³/s. During spring, significant flows will continue downstream of the intake weir to the waterfalls, as the estimated average New Post Creek flows for May and June are 131 m³/s and 71 m³/s, respectively. During the rest of the year, the minimum flows will first be released downstream of the weir with the remaining flow diverted to the turbines to generate electricity.

When the diverted creek flow is less than the lowest plant operating flow of the smallest turbine unit (typically 40% of the unit capacity for a Francis turbine), pulsed operation would occur. It is expected to occur primarily during the low flow winter periods and would use the limited storage available in the forebay to provide additional generation. Using a FSL of 187.00 m.a.s.l., sufficient storage would be available to augment low creek inflow in order to operate one turbine unit for several hours. This operation could be repeated throughout the day as flow permits,

thereby generating additional energy during a period when the plant would otherwise be shut down. The plant will release flow in any day equal to the volume of inflow. This pulsing operation provides additional technical (and cost) benefits such as ensuring continued flow through the penstocks and station heating in the winter months. For example, for two equal sized turbine units with a capacity of 25 m³/s each, the plant would operate in pulsed mode at riparian flows between approximately 2 and 12 m³/s during parts of February and March (based on a 2 m³/s minimum flow for this period). Pulsing will be undertaken during other times of the year when there is not enough flow to provide the minimum flow and run the turbines.

Annual water levels in New Post Creek vary by approximately 3 m. With pulsing, water level fluctuations will be less, but occur more frequently over short periods of time. Water level fluctuations will be limited to 0.5 m below the usual full headpond water level. Pulsing will be permitted at any time during the year within this operating range of 0.5 m provided minimum flows are directed over the spillway and no negative effects due to pulsing, that can not be otherwise mitigated, are observed (G. Funnell, MNR, 2013, pers. comm.).

2.3.2.2 Operating Regime

The existing Abitibi River Water Management Plan (WMP) (OPG *et al.*, 2006) will need to be amended through an Administrative Amendment. Flows and levels for the proposed New Post Creek Hydroelectric GS will comply with the amended Abitibi River WMP.

Operation will be constrained by the minimum flow required in the existing channel mandated as required for the waterfalls downstream. This minimum flow was agreed to with MNR, Ontario Parks and Department of Fisheries and Oceans (DFO) during the Definition Phase. All parties have been working towards the operating regime that:

- a) continues to provide important ecological functions;
- b) ensures that the proposed Project is economically viable;
- c) respects TTN's historic and modern day interests;
- d) ensures and enhances public safety; and
- e) ensures continual flow down New Post Creek and over the waterfalls to maintain aesthetic value.

As a pre-condition, it was agreed that the proposed Project will not change the total volume of water flowing into the Abitibi River, or the operating considerations for OPG's Abitibi Canyon GS and Otter Rapids GS. Total flows from New Post Creek into the Abitibi River will remain unchanged (except that there will now be two discharge locations, i.e., at the proposed GS tailrace and the existing New Post Creek outlet). As a result, flow magnitude, frequency, timing, duration and rate of change will be different than current flow conditions at the New Post Creek outlet.

The minimum flows that must be maintained downstream of the spillway structure at all times are provided below:

Period	Minimum Flow (m ³ /s)
Approximately May 1 to mid-June ¹ ; timing dependent on spring spawning and egg incubation period ²	15
Mid-June 1 to August 31	7.5
September 1 to 30	5
October 1 approximately to April 30; timing dependent on Walleye (<i>Sander vitreus</i>) spawning initiation	2

¹ To be expanded to include Lake Sturgeon spawning and egg incubation period if spawning occurrence is demonstrated.

² Brief transition of flows from 15 to 7.5 m³/s from the end of egg incubation (based on thermal units accumulated) with the rampdown rate (m³/s per day) to be determined in consultation with the MNR and DFO.

The proposed Project will have a relatively small headpond (approximately 170 ha) and will hold approximately 8,000,000 m³ of water. However, all of the water within the headpond is not available to the proposed facility to use for generation since the facility is only permitted to vary the headpond water level by 0.5 m. Therefore, the headpond will have limited ability to store water and the intended operation of the facility is to utilize the water as it comes down New Post Creek, while maintaining a minimum flow through the downstream creek reach and over the waterfalls. For clarity, the proposed headpond will not be drained for generation and replenished.

The forebay fluctuations are intended to provide operation during low flow periods primarily in late winter and late summer. This pulsing will be an automatic process and will involve the following:

1. The turbines are expected to require a minimum of approximately 10 m³/s to operate. Any time the total flow in New Post Creek is less than 10 m³/s plus the minimum downstream flow requirement, the turbine units will not be able to operate.
2. In such situations, the proposed GS will be allowed to draw down the forebay within the prescribed range at a flow rate that will optimize efficiency.
3. When the water level reaches its lower limit, the units will shut down until the forebay returns to its high level. This will not be co-ordinated with the time of day for increasing revenue but will be an automatic process.
4. The fluctuation is expected to be lower in the winter to maintain an ice cover on the forebay.
5. This cycle will repeat most frequently in situations when flows are just below the required 10 m³/s plus the minimum downstream flow requirement. The situation that would cause the most frequent starts/stops would be during the winter. In such cases the cycle could be expected to repeat every 8 to 48 h, depending upon riparian flow.

6. In the prescribed period where a 50 cm band is achievable, the cycle would be expected to repeat every 48 to 150 h, depending upon riparian flow.
7. The flows downstream of the dam would not change during this process as they will remain as the defined minimum flow requirement.

The 7.5 m³/s requirement between mid-June and August 31 is used as an example to better illustrate the minimum flow operation. Depending on the available inflow, there are basically three scenarios:

1. When there is not enough flow to provide the minimum flow of 7.5 m³/s **and** run the turbines (requires approximately 10 m³/s), the minimum flow of 7.5 m³/s will continue to be provided down New Post Creek and over the waterfalls. Any remaining water will be held back within the headpond. The headpond has limited capacity to hold water within the 0.5 m band. Therefore, once enough water has collected in the headpond to run the station for a reasonable duration, it will restart and begin generation. When the lower limit of the band is reached, generation will stop. This cycle could happen several times a day during a low flow period; however, the 7.5 m³/s minimum flow will be maintained.
2. For the majority of the summer period, it is expected that there will be enough flow to provide the 7.5 m³/s and operate the proposed GS continuously. The proposed GS will be designed in a manner to run in low flow situations so that operations can continue as frequently as practical in order to minimize any stop/start cycles for the equipment. In this scenario, a constant flow of 7.5 m³/s is provided down New Post Creek.
3. In situations where the flow exceeds the amount required to provide the 7.5 m³/s minimum flow and the maximum flow that the proposed GS can utilize (approximately 50 m³/s), the additional water will be spilled through New Post Creek increasing the flow above 7.5 m³/s.

In all cases (other than a natural drought condition in which all available flow will be released down the creek), a minimum flow of 7.5 m³/s will be provided during the summer period downstream in New Post Creek and over the waterfalls.

With respect to water levels, it is proposed that the upper FSL of 187.00 m.a.s.l. be used as the normal maximum operating level with a minimum operating level of 182.00 m.a.s.l. The proposed headpond water levels are summarized below:

- Maximum Operating Level (flood conditions): 187.50 m.a.s.l.
- Normal Maximum Operating Level: 187.00 m.a.s.l.
- Normal Minimum Operating Level: 186.50 m.a.s.l.
- Absolute Minimum Level: 182.00 m.a.s.l.
- Minimum Level for Periodic Headpond Maintenance: 182.30 m.a.s.l.

2.3.2.3 Transmission Facilities

The proposed transmission facilities would be inspected on an annual basis using a combination of aerial and/or ground reconnaissance. Additional inspections may be required after the occurrence of any harsh weather conditions or upon occurrence of any line faults. Emergency repairs could occur at any point in the year.

Vegetation control on the ROW will be required, involving a combination of manual and mechanical approaches. Based on commitments made to the Aboriginal communities, no chemical treatment will be utilized for vegetation management.

2.3.3 Decommissioning

The history of hydroelectric generating stations in Ontario is that they are typically not decommissioned. Rather, as the structures near the end of their engineered life, they are either re-developed or refurbished. The societal benefit of these hydroelectric assets and their associated infrastructure, e.g., transmission and distribution lines, is such that these re-investments are usually considered economically, socially and environmentally preferable to developing new energy projects. As such, no specific decommissioning activities have been identified. Rather, transmission and distribution structures and lines would be maintained and/or replaced as part of ongoing operations.

3.0 GENERAL CONSULTATION APPROACH

This chapter describes the general consultation approach undertaken as part of the proposed New Post Creek Hydroelectric Project.

3.1 PUBLIC CONSULTATION PLAN

A public consultation plan was prepared with the overall objective: “to provide the public with an opportunity to have meaningful input on the project and address public concerns where possible and feasible.”

The public consultation plan identified various tools and activities to ensure that the public was able to readily obtain information on the proposed Project. These tools included: open houses, project newsletters, a project website and management of on-going public inquiries associated with the proposed Project.

3.2 DATABASE

A database of public and agency stakeholders who were to be notified about the proposed Project, open houses and newsletters was developed. The database includes a total of 58 stakeholders, including:

- business owners and contractors with an interest in the construction of the proposed Project;
- general public;
- government agency stakeholders;
- outfitters;
- Aboriginal individuals and organizations;
- other energy and resource (e.g., mining and forest products) companies;
- resource users (e.g., canoeists); and
- municipal interests.

This database was modified and updated regularly during the course of the proposed Project.

All individuals on the database received notifications (primarily via e-mail) about newsletters and open houses.

3.3 PROJECT WEBSITE

A website was created for the proposed Project and can be found at www.newpostcreek.com. This website was active by October 2011 for the public and its operation has been on-going. Contact information is provided to facilitate inquiries.

The website pages include:

- Home Page;
- Frequently Asked Questions;
- Project Information;
- Notices/Decisions;
- Supporting Documents;
- Newsletters;
- Open House Information; and
- Contact Page.

From May 2012 to April 2013 there had been over 5,700 visits to the website.

3.4 NOTICES AND NEWSLETTERS

Public notices were circulated prior to each series of open houses and for the commencement of the proposed Project. They were as follows:

- Notice of Commencement and First Open House - November 2011; and
- Notice of Final Open House – November 2012.

The first Open House was advertised in:

- The Cochrane Times Post (English) (November 16 and 23, 2011);
- Kapuskasing Northern Times (English) (November 16 and 23, 2011);
- Kapuskasing L'Horizon (French) (November 16 and 23, 2011); and
- Kapuskasing Weekender (French and English) (November 17 and 24, 2011).

The second Open House was advertised in:

- Cochrane Times Post (English) on November 15 and 22, 2012;
- le Weekender (French and English) on November 15 and 22, 2012; and
- Kapuskasing Northern Times (English) on November 14 and 21, 2012.

Note that because the OWA Class EA was coordinated with the MNR Class EA, MNR also included information on the proposed Project in their mailout.

All individuals, business and organizations on the database received a copy of the Notice of Commencement and First Open House, and Notice of Final Open House. Notices were sent via e-mail or Canada Post and were also posted on the proposed Project website.

All the Notices appear in Appendix A of this TSD.

Two newsletters were produced during the course of the proposed Project. These newsletters appear in Appendix B. They were as follows:

- Newsletter #1 – November 2011; and
- Newsletter #2 – November 2012.

3.5 OTHER CRP/OPG CONSULTATION

CRP/OPG has regular and special communications with municipal representatives and similar agencies in northeastern Ontario. Outlined below are a list of communications updates and special events in which CRP/OPG communicated key aspects of the proposed New Post Creek Project.

- January 12, 2011 Update letter to Charlie Angus, MP, Timmins-James Bay;
- January 12, 2011 Update letter to Michel Arseneault, Mayor, Smooth Rock Falls;
- January 12, 2011 Update letter to Gilles Bisson, MPP, Timmins-James Bay;
- January 12, 2011 Update letter to Dan Cleroux, Mayor, Coleman Township;
- January 12, 2011 Update letter to Carol Hughes, MP, Algoma-Manitoulin-Kapuskasing;
- January 12, 2011 Update letter to Carman Kidd, Mayor, Temiskaming Shores;
- January 12, 2011 Update letter to Tom Laughren, Mayor, Timmins;
- January 12, 2011 Update letter to Victor Mitchell, Mayor, Moosonee;
- January 12, 2011 Update letter to Peter Politis, Mayor, Cochrane;
- January 12, 2011 Update letter to David Ramsay, MPP, Timiskaming-Cochrane;
- January 12, 2011 Update letter to Anthony Rota, MP, Nipissing-Timiskaming;
- January 12, 2011 Update letter to Al Spacek, Mayor, Kapuskasing;
- December 10, 2012 Update to Charlie Angus, MP, Timmins-James Bay;
- December 10, 2012 Update to Michel Arseneault, Mayor, Smooth Rock Falls;
- December 10, 2012 Update to Jay Aspin, MP, Nipissing-Timiskaming;
- December 10, 2012 Update to Gilles Bisson, MPP, Timmins-James Bay;
- December 10, 2012 Update to Dan Cleroux, Mayor, Coleman Township;
- December 10, 2012 Update to Carol Hughes, MP, Algoma-Manitoulin-Kapuskasing;
- December 10, 2012 Update to Carman Kidd, Mayor, Temiskaming Shores;
- December 10, 2012 Update to Tom Laughren, Mayor, Timmins;
- December 10, 2012 Update to George Lefebvre, Mayor, Latchford;
- December 10, 2012 Update to Victor Mitchell, Mayor, Moosonee;
- December 10, 2012 Update to Peter Politis, Mayor, Cochrane;
- December 10, 2012 Update to Al Spacek, Mayor, Kapuskasing;
- December 10, 2012 Update to John Vanthof, MPP, Timiskaming Cochrane;
- Timmins Economic Development Corporation board insight presentation - March 19, 2013;
- Timmins Regional Economic Outlook Conference - October 15, 2012 (annual conference put on by the Timmins Chamber of Commerce);

- Temiskaming Shores and Area Chamber of Commerce Annual Dinner - June 9, 2011;
- Timmins Regional Economic Outlook Conference - May 20, 2010 (annual conference put on by the Timmins Chamber of Commerce);
- Town of Cochrane Update - March 22, 2010 (presentation to mayor and council);
- Kapuskasing Community Dinner - December 8, 2009 (presentation made to community leaders and businesses).

4.0 PUBLIC CONSULTATION OPEN HOUSES

Two rounds of Public Open Houses were held for the proposed Project. The first round was held in November and December of 2011 and the second round was held in December 2012.

4.1 PUBLIC OPEN HOUSE #1

The first round of public open houses on the EA for the proposed Project was held on November 30, 2011 in Smooth Rock Falls and December 1, 2011 in Cochrane. Separate consultation sessions were held with the Moose Cree First Nation (MCFN) and TTN at that time (see First Nation and Métis Interests and Consultation TSD).

Staff representation at the Open Houses was from OPG, CRP, KGS Group and SENES. TTN Chief Linda Job and Councillor Peter Archibald attended the Open Houses in Smooth Rock Falls and Cochrane. Representatives of MNR Cochrane District, Ontario Parks and MOE also attended the two sessions.

A total of 22 individuals attended the Open House in Smooth Rock Falls and seven individuals in Cochrane. The attendees represented a combination of general public, resource users (e.g., anglers, canoeists), business interests (i.e., possible contractors), Aboriginal interests and government agency stakeholders. Photos from the Open Houses are provided below.







A total of 25 Information Panels were available for the public to review and staff available to respond to questions. The panels provided an overview of the proposed Project and indicated that an EA process under the OWA (2012) Class EA was commencing. The panels also explained that federal agencies were also reviewing the proposed Project to determine whether a federal EA was required. The material explained and identified the types of studies and field work that would be undertaken. Finally the proposed Project benefits were identified. These presentation panels can be found on the proposed Project website and are also reproduced in Appendix C of this TSD.

A comment sheet was provided at the Open House giving the public four weeks to return comments. Only one comment sheet was returned by the public. SENES followed up with this individual.

Most individuals attending the Open Houses indicated support for the proposed Project, recognizing the variety of benefits associated with the Project for northern Ontario. A few concerns and questions were raised about the proposed Project with respect to effects on the fisheries resources, and aesthetic effects on the New Post Creek waterfalls due to the reduced flows resulting from the proposed Project.

The questions and comments received from the public are described below.

Comment/Question from the Public	Response
I am concerned with the fact there will be less water falling over the New Post Creek Falls (tourism/aesthetic concerns)? (Note: This was raised by a few individuals).	While there will be less water flowing over the Falls a minimum permanent year round flow would be provided. That minimum flow has not yet been determined but will be based on studies and consultation. During the spring and early summer there will be significant excess flows in most years.
Concerned with fisheries impacts when there will be less water falling over the Falls.	CRP/OPG has been studying the possible fisheries effects of the proposed Project for the past three years. CRP/OPG has identified that walleye spawn at the base of the Falls but not lake sturgeon or lake whitefish. CRP/OPG will work with the MNR and DFO to ensure that spawning will not be affected. As well, CRP/OPG will work with these agencies to identify a minimum flow that will be provided year round to benefit the fish community.
A number of individuals inquired about the Replacement Lands involved in the deregulation of lands in LAPP.	An explanation was provided on the Replacement Lands for LAPP. It was indicated that these generally are under-represented lands within the Ontario Parks system. The replacement lands are twice the size of the area to be removed from LAPP and the studies done indicate that the ecological integrity of the Replacement Lands are greater than what is to be removed.
A couple individuals wondered about the precedent of deregulating Park lands for a proposed hydroelectric development. (Note there was some acknowledgement that the Park was established without consultation with TTN in the first place and that TTN is a partner on the proposed Project).	MNR and Ontario Parks indicated that there is no precedent. This is a unique situation. It is being entertained because of past circumstances with this particular First Nation – there was a government commitment some years ago to look at this.
Numerous people indicated general interest in the proposed Project.	Acknowledged.
A number of contractors indicated interest in the opportunities associated with the proposed Project.	Acknowledged. General information was shared about the proposed Project.

4.2 PUBLIC OPEN HOUSE #2

The second round of public open houses on the EA for the proposed Project was held on December 5, 2012 in Smooth Rock Falls and December 6, 2012 in Cochrane. Separate consultation sessions were held with the MCFN and TTN at that time.

Representation at the Open Houses was from OPG, CRP, TTN, KGS Group and SENES. Representatives of MNR Cochrane District, Ontario Parks and MOE also attended the Open Houses.

A total of 29 individuals attended (signed-in) to the two Open Houses with 19 attending in Smooth Rock Falls and 10 individuals in Cochrane. The attendees represented a combination of general public, municipal interests, business interests (i.e., possible contractors and outfitters), Aboriginal interests and government agency stakeholders.

A total of 30 Information Panels were available for the public to review and OPG, CRP, KGS Group and SENES staff were available to respond to questions. The panels provided overviews of the proposed Project and the EA process, as well as descriptions of the proponents, likely environmental effects and recommended mitigation measures, and next steps. The proposed Project benefits were also identified. These presentation panels can be found on the proposed Project website and are also reproduced in Appendix D of this TSD.

A comment sheet was provided at the Open House giving the public four weeks to return comments. Two comment sheets were returned by the general public and none asked for further follow-up.

Most individuals attending the Open Houses indicated support for the proposed Project, recognizing the variety of benefits associated with the Project for northern Ontario. A few concerns and questions were raised about the proposed Project with respect to aesthetics associated with the reduction of flow over the New Post Creek waterfalls.

The questions and comments received from the public are described below (these were questions provided formally on Comment Sheets as well as verbally to the proposed Project team and/or the government regulators).

Comment/Question from the Public	Response
Effects on the Waterfalls	
Many members of the public inquired about whether flows would remain over the waterfalls?	<p>Yes there would be permanent flow over the waterfalls. These individuals were shown the presentation panel that described the proposed operating regime for the GS and outlined required minimum flows.</p> <p>Some of these individuals were interested in detailed explanations of the proposed minimum flow regimes. It was explained that the minimum flows are adjusted seasonally to address ecological, social and economic concerns as well as being based on the actual flow available at that time of the year.</p>

Comment/Question from the Public	Response
	It was also explained that there will be many times (i.e., during the spring) when flows will exceed the minimum flows.
Two general public members (both retired hydro plant operators) wanted general information on the proposed Project indicating that they attended the session because they were concerned about the proximity of the GS to the waterfalls.	General information was provided and these individuals were relieved when it was explained that the GS will actually be a few km away from the waterfalls.
After better understanding the operating regime two outfitters expressed comment on it: (1) Summer flows of 7.5 m ³ /s will not be attractive for visitors to the waterfalls; (2) Early September date to reduce flows to 5 m ³ /s. should be mid versus beginning of September; and, (3) Acknowledged that public safety and company liability are very important, but concerned that signage close to the waterfalls will take away from its aesthetic value, visitor enjoyment and ultimately outfitter business. They recommended that warning signs be erected away from the immediate waterfalls area (e.g., the confluence of the New Post Creek and Abitibi River and along the park trail from the road north of the waterfalls). There was also some general discussion with the outfitters on how the proposed operating regime would work.	<p>It was explained that the proposed operating regime was considered a compromise among the ecological, social and economic considerations. It was indicated that CRP/OPG and MNR would be willing to consider any input the outfitters have and they were encouraged to put their comments and concerns down on paper for submission and consideration.</p> <p>It was explained that public safety could not be compromised and it was perhaps too early to discuss how such specifics could be worked out.</p> <p>Note subsequent to the second Open House, the CRP/OPG team has responded to questions submitted by the two outfitters. The written response further explained the operation regime, and answered questions on signage, etc.</p>
Contracting and Economic Opportunity Questions	
A few contractors asked about the general design and engineering with no specific concerns being raised but with an expression to be on the mailing list for the proposed Project as they were interested in possible sub-contracting opportunities.	Information on the design and construction was provided. Discussions were held on the probable contracting strategy.
I think it's a good idea more electricity will be needed in the future.	Acknowledged
Many members of the public inquired about the general schedule and when construction would be initiated.	The general schedule and contracting strategy was explained.

Comment/Question from the Public	Response
Lake Abitibi Provincial Park	
A couple members of the public asked why is the Park boundary regulated the way it is and how was the park (LAPP) created?	It was explained by Ontario Parks officials that the long and narrow section of LAPP following the Little Abitibi River is a standard setback for waterway parks and other parks regulated along rivers. The history of the park was explained and that it originated from two neighbouring protected areas.
Specific Questions/Comments	
Will there be fencing around the facility?	A public safety review will be conducted which may include the placement of fencing and/or signage. Public safety will be given high priority.
Where would the camp be placed? How many people?	The camp will be the decision of the DBC; however indications are that there will be a construction camp. The camp would likely be located near the existing Abitibi Canyon staff house area and would accommodate approximately 100 people.
Does the proposed Project have a power purchase agreement?	No, the proposed Project is currently seeking a revenue contract.
Why not use solar power instead of dams? There are already six dams within 100 km of Cochrane.	It was explained that the Province's Long Term Energy Strategy includes power from several sources and that hydroelectric energy is often the most effective and cost efficient form of energy in the system. It was also indicated that at this site it is a hydroelectric opportunity because of available head.
Will we be impacting the flows to the Little Abitibi River – diverting more water?	No, the Little Abitibi River Diversion Dam will operate as it does today.
Will there be any impact to the Otter Rapids Road bridge?	No, the proposed Project effect is contained to downstream of the bridge.
Has there been much forest harvesting in these areas previously?	Yes. We used the transmission panels to indicate areas that have been harvested within the last 15-20 years.
Cabin owner downstream of former HBC New Post site inquired as to whether there will be an effect on flows near his cabin?	No, the effect to flow is limited to where New Post Creek meets the Abitibi River. Also explained that the New Post Creek flows are only a small portion of the existing flows in the Abitibi River. The owner was satisfied that proposed Project would not affect his cabin or activities.

Comment/Question from the Public	Response
Specific Questions/Comments	
Another outfitter asked if there would be any impacts upstream of the New Post Creek Diversion Dam?	No, there will be no impacts to flows in the area of the outfitters business. The outfitter was satisfied and asked where they could leave positive comments on the proposed Project. A comment card was left indicating that they were satisfied and had no further concern.
Has the First Nation been consulted?	Yes – it was explained that TTN is a partner on the proposed Project, but meetings have been held with the TTN Community on Reserve and in Moosonee. It was explained that consultation was also being undertaken with MCFN and Métis peoples.
Take care of the environment when you do the work there.	Acknowledged.
An outfitter asked where the transmission line would go.	Transmission line runs in the opposite direction of outfitter's business. Outfitter was satisfied the proposed Project would not affect his activities.
General Comments	
Several members of the public asked for general information about the proposed Project but did not raise any specific concerns.	Acknowledged.
Mayor and CAO of Smooth Rock Falls indicated that they are in full support of the proposed Project and also stated to contact them if we require any assistance moving forward. Both gentlemen emphasized the need to involve the Town of Smooth Rock Falls in the construction stage of the proposed Project.	Acknowledged. Subsequent to the Open House, letters of support have been received from the mayors of Smooth Rock, Cochrane, Timmins and Kapuskasing. Copies can be found in the Appendix E.
A number of people said this would be good for the economy.	Acknowledged. No response necessary.

4.3 SUMMARY OF PUBLIC OPEN HOUSES

The two open houses demonstrated that the vast majority of individuals that attended indicated their support for the proposed Project. Two outfitters have expressed concerns about the proposed operating regime. They have submitted their concerns in writing and the CRP/OPG team has provided a response. At least one other individual indicated a concern about the proposed Project but was less concerned following the answers provided. This individual did not submit a Comment Sheet. A number of individuals indicated their support for the proposed Project given TTN's involvement and the economic benefits it would bring. A few specific issues were raised in the Open Houses and were discussed.

5.0 GOVERNMENT AGENCY CONSULTATION

Consultation with agencies, specifically MNR, DFO, Indian and Northern Affairs Canada (INAC), now known as Aboriginal Affairs and Northern Development Canada (AANDC), and the Canadian Environmental Assessment Agency (CEA Agency), started in the Concept Phase of the proposed New Post Creek Project (2006). Significant consultation was initiated in 2006 with MNR and Ontario Parks and continues to the current period. Initial discussions focused on:

- the deregulation of a small area of LAPP;
- assessing and defining Replacement Lands;
- consultation by MNR/Ontario Parks with TTN on the replacement lands options;
- installation of a flow gauge in the New Post Creek downstream of the proposed intake;
- survey of the Park boundary;
- discussions with respect to field work including geotechnical work inside and outside the Park;
- ecological integrity;
- understanding the inundation area upstream of the intake; and
- minimum flow (preliminary discussions on minimum flow with MNR were continued in greater detail during the EA process).

The nature of the consultation varied from:

- face to face meetings;
- regular phone calls with the District Manager and Planner(s);
- creation of a Task Team with membership from MNR, Ontario Parks, TTN, CRP and OPG; and
- facilitation of a team of MNR biologists and planners to undertake field work at the proposed New Post Creek Project site and vicinity to assess the proposed replacement lands (accommodation for one week was provided to MNR and Ontario Parks staff at the Abitibi Canyon staff house).

In addition to discussions with MNR noted above, the CRP/OPG team met with CEA Agency at their office during the Concept Phase to provide a Project overview, and also met with INAC to provide a similar update. A meeting was also held with DFO and MNR on January 7, 2011 to discuss MNR's suggested fisheries baseline fieldwork requirements for New Post Creek.

A summary of agency consultation activities undertaken once the EA commenced in May 2011 is provided below. CRP/OPG has consulted with various provincial and federal government agencies throughout the EA process. Some key dates and topics are summarized below:

- May 25, 2011 – Multi-Agency Meeting to Introduce the Project. Representation in person or on phone by MNR/Ontario Parks, MOE, Ontario Ministry of Tourism, Culture and Sport (MTCS), DFO, Transport Canada and Environment Canada. The intention of this all day meeting was to introduce the proposed Project and outline proposed field studies.
- June 6, 2011 – Meeting with the CEA Agency and AANDC introducing the proposed Project.
- October 20, 2011 – Meeting with the MNR, Ontario Parks and DFO on an approach to developing an operating regime for the proposed GS.
- November 30, 2011 – Visit to proposed New Post Creek Project site for interested regulators.
- November 2011 – Discussions with Ministry of Energy with respect to the Aboriginal Consultation Plan.
- April 5, 2011 – Meeting with MOE on the proposed Project.
- April 11, 2012 – Meeting with MNR/Ontario Parks, MOE and DFO on the proposed operating regime.
- October 20, 2011 – Proposed Project update meeting with MNR/Ontario Parks and MOE.
- October 27, 2011 - Conference Call with MOE to discuss their hydrological and hydraulic analysis requirements for waterpower projects.
- September 19, 2012 - Meeting with MNR and Ontario Parks to discuss proposed operating regime.
- October 23 – Meeting with MNR/Ontario Parks (DFO invited) to discuss the proposed operating regime.
- October 30, 2012 – Meeting with MNR (DFO invited) to discuss the proposed operating regime.
- Facilitated MOE, MNR, Ontario Parks and AANDC to attend meetings in Moose Factory and Moosonee (for both Open Houses).

In addition to the formal meetings noted above, CRP/OPG has met with and had ongoing communications with the MNR Cochrane District Office, Ontario Parks, MOE and MTCS throughout the EA process.

Finally, the draft ER and associated TSDs were reviewed by the MNR, Ontario Parks, MOE and DFO. All issues, comments, clarification requests and edits were resolved through an iterative process prior to document finalization for public review. CRP/OPG extends acknowledgement and appreciation to the following agency reviewers:

MNR Cochrane District Office

- Gary Funnell, Cochrane/Moosonee Area Supervisor
- Robin Stewart, District Planner
- Carole Boucher, Integrated Resource Management Technical Specialist
- Chris Chenier, Area Biologist

- Stephen Foley, Area Forester
- Derek Seim, Aggregates Technical Specialist
- Leeanne Beaudin, Fish & Wildlife Technical Specialist
- Marc Boucher, (Acting) Lands and Water Technical Specialist
- Peter Kapashesit, Community Liaison Officer

MNR Cochrane Fire Management Headquarters

- Al Winters, Fire Operations Supervisor

MNR Northeast Regional Office

- Rich Pyrce, Hydrologist
- Rob Schryburt, Sr. Project Engineer
- Christine Greenaway, (Acting) Renewable Energy Coordinator

Ontario Parks

- Nancy Daigle, Park Superintendent, Cochrane Cluster
- Will Kershaw, Northeast Zone Sr. Management Planner
- Ed Morris, Northeast Zone Ecologist

MOE

- Bill Armstrong, Regional Environmental Planner, Southwestern Region
- Jacinth Gilliam-Price, Surface Water Specialist, Technical Support, Northern Region (Thunder Bay)
- Carroll Leith, Environmental Officer, Timmins District Office
- Rod Whitlow, Senior Advisor, Aboriginal Affairs Branch
- Joe de Laronde, Senior Advisor, Outreach & Program Support, Aboriginal Support Branch

DFO

- Todd Schwartz, Fisheries Protection Biologist, Fisheries Protection Program, Winnipeg Office, Central and Arctic Region

6.0 SUMMARY AND CONCLUSIONS

The public and agency consultation process for the proposed New Post Creek Project has been comprehensive and inclusive of all interested individuals and government representatives. In general, the public has been very supportive of the proposed Project recognizing its energy and economic benefits, as well as its importance to TTN.

No individual has indicated an outright opposition to the proposed Project. A few individuals have expressed some questions and concerns and efforts have been made to address these questions and concerns.

It is our opinion that all public comments raised have been addressed and that comprehensive consultation has taken place with relevant agency and government regulators.

7.0 REFERENCES

- Beacon Environmental (Beacon) 2010. *Ecological Integrity Assessment Little Abitibi Provincial Park*. Report to Coral Rapids Power and Ontario Power Generation. 38 p.
- Hydro One Networks Inc. (Hydro One) 2010. *Final Customer Impact Assessment, New Post Creek GS 25 MW Hydroelectric Connection*. 7 p.
- Independent Electricity System Operator (IESO) 2010. *System Impact Assessment Report for Newpost Creek Hydraulic Generation Development*. IESO_REP_0511: 43 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2013a. *New Post Creek Hydroelectric Development Geotechnical Baseline Report*. Draft Report Revision C to Ontario Power Generation Inc. and Coral Rapids Power. 29 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2013b. *New Post Creek Hydroelectric Development Geotechnical Data Report*. Draft Report Revision B to Ontario Power Generation Inc. and Coral Rapids Power. 21 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2013c. *New Post Creek Hydroelectric Development Project Design Requirements*. Report to Ontario Power Generation Inc. and Coral Rapids Power. 138 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2013d. *New Post Creek Hydrodevelopment Project Peter Sutherland Sr. Generating Station Transmission Specification*. Revision A. Report to Ontario Power Generation and Coral Rapids Power. 53 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2012. *New Post Creek Generating Station Definition Phase Optimization Report*. Report to Ontario Power Generation Inc. and Coral Rapids Power. 68 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2010. *New Post Creek Generating Station Feasibility Update*. Final Report to Ontario Power Generation. 38 p.
- Kontzamanis, Graumann, Smith, MacMillan Inc. (KGS Group) 2006. *Newpost Creek Generating Station Concept Phase Study*. Final Report to Ontario Power Generation.
- Ontario Ministry of Energy 2010. *Ontario's Long-Term Energy Plan – Building Our Clean Energy Future*. 68 p.
- Ontario Ministry of the Environment (MOE) 2003. *Stormwater Management Planning and Design Manual*.
- Ontario Ministry of Natural Resources (MNR) 2005. *A Class Environmental Assessment for Provincial Parks and Conservation Reserves*. 120 p.
- Ontario Power Generation Inc., Abitibi Consolidated Company of Canada, Algonquin Power Income Trust and Ontario Ministry of Natural Resources (OPG et al.) 2006. *Abitibi River Water Management Plan*.
- Ontario Waterpower Association (OWA) 2012. *Class Environmental Assessment for Waterpower Projects*. Third Edition. 106 p.

SENES Consultants Limited (SENES) 2011. *Project Description for Federal Agency Review – New Post Creek Hydroelectric Project*. Report to Ontario Power Generation Inc. and Coral Rapids Power.

8.0 ACRONYMS AND ABBREVIATIONS

&	And (ampersand)
<	Less than
#	Number
+	Plus
AANDC	Aboriginal Affairs and Northern Development Canada
AoC	Area of Concern
ATV	All-terrain vehicle
Beacon	Beacon Environmental
c.	Chapter
CAO	Chief Administrative Officer
CEAA	<i>Canadian Environmental Assessment Act</i>
CEAA 2012	<i>Canadian Environmental Assessment Act, 2012</i>
CEA Agency	Canadian Environmental Assessment Agency
CRP	Coral Rapids Power Inc.
DBC	Design Build Contractor
DFO	Department of Fisheries and Oceans
e.g.	For example (exempli gratia)
EA	Environmental Assessment
<i>EA Act</i>	<i>Environmental Assessment Act</i>
ER	Environmental Report
<i>et al.</i>	And others (et alia)
FSL	Full Supply Level
GS	Generating Station
H	Horizontal
HBC	Hudson's Bay Company
Hydro One	Hydro One Networks Inc.
i.e.	That is (id est)
IESO	Independent Electricity System Operator
INAC	Indian and Northern Affairs Canada
Inc.	Incorporated
KGS Group	Kontzamanis, Graumaun, Smith, MacMillan Inc.
LAPP	Little Abitibi Provincial Park
MCFN	Moose Cree First Nation
MNR	Ontario Ministry of Natural Resources
MNR Class EA	Class Environmental Assessment for Provincial Parks and Conservation Reserves
MOE	Ontario Ministry of the Environment
MoU	Memorandum of Understanding
MP	Member of Parliament
MPP	Member of Provincial Parliament
MTCS	Ontario Ministry of Tourism, Culture and Sport
NA	Not applicable

NECC	North East Control Centre
ONR	Ontario Northland Railway
OPG	Ontario Power Generation Inc.
OWA	Ontario Waterpower Association
OWA Class EA	Class Environmental Assessment for Waterpower Projects
pers. comm.	Personal communication
<i>PPCRA</i>	<i>Provincial Parks and Conservation Reserves Act</i>
Project	New Post Creek Hydroelectric Project or New Post Creek Project
ROW	Right-of-way
S.C.	Statutes of Canada
SENES	SENES Consultants
SIA	System Impact Assessment
Sr.	Senior
TSD	Technical Support Document
TTN	Taykwa Tagamou Nation
V	Vertical
WMP	Water Management Plan

Measurement Units

GWh	gigawatt hour
h	hour
ha	hectare
km	kilometre
km ²	square kilometre
kV	kilovolt
m	metre
m.a.s.l.	metre above sea level
m ³	cubic metre
m ³ /s	cubic metre per second
MW	megawatt
%	percent
rpm	revolution per minute

9.0 GLOSSARY

Anode Cathodic Protection	Technique use to control corrosion of a metal surface by making it a cathode of an electrochemical cell by connecting the metal to be protected with another more easily corroded metal to act as the anode of the electrochemical cell.
AoC Prescription	Mitigation direction prescribed by the MNR to minimize or obviate a potential adverse effect on a habitat value or feature.
Bedload	The solid debris transported in a stream on or near its bed; because this material is too heavy to be carried in suspension, it is moved by rolling, sliding or saltation (sudden jumps) along the bottom.
Bulkhead	A steep or vertical wall retaining an embankment, often used to line shorelines, maintain embankment stability and absorb the energy of waves and currents.
Canal	A channel dug or built to carry water.
Capacity	The greatest load which a unit, station or system can supply (usually measured in kilowatts, megawatts, etc.)
Cofferdam	A temporary dam made of concrete, rockfill, sheet-steel piling, timber/timber-crib or other non-erodible material and commonly utilized during construction to exclude water from an area in which work is being executed.
Crest gate (Control gate)	The gate that controls water flow into a hydroelectric dam.
Dam	A concrete or earthen barrier constructed across a river and designed to control water flow or create a reservoir.
Draft tube	The flared passage leading vertically from a turbine to its tailrace.
Dyke	Embankment against flooding.
Feldspar	A group of common aluminum silicate minerals that contains potassium, sodium or calcium; the most important group of rock-forming minerals, making up about 60% of the rocks of the earth's crust.
Forebay	The part of a dam's reservoir that is immediately upstream from the powerhouse.
Freshet	High flows caused by snow melt, runoff, heavy rains and/or high inflows.
Generator	A machine that changes water power, steam power, or other kinds of mechanical energy into electricity.

Geotechnical	Concerned with the physical properties of soil, rock and groundwater usually in relation to the design, construction and operation of engineered works.
Gneiss	A coarse-grained metamorphic rock commonly composed of quartz and feldspar, with lesser amounts of mica.
Granite	Medium to coarse grained igneous rock that is rich in quartz and potassium feldspar.
Head	The difference in elevation between the water surface at the intake and tailrace.
Headpond	The reservoir from which the hydroelectric facility draws water flow for generation.
Headwater	The section of a river or stream with the highest elevation above sea level.
Hydraulic	Of water conveyed through a pipe or channel.
Igneous	Rocks formed from the solidification of molten magma either beneath (intrusive igneous rock) or at (extrusive igneous rock) the earth's surface.
Intake	A structure which regulates the flow of water into a water-conveying conduit.
Lacustrine	Of lakes.
Lithification	Process by which sediments are consolidated into sedimentary rock.
Magma	Molten or fluid material generated from rock deep within the earth that may force its way upward into the crust (as igneous rock) or onto the surface (as lava).
Metamorphic	A rock that forms from the recrystallization of igneous, sedimentary or other metamorphic rocks through pressure increase, temperature rise, or chemical alteration.
Mica	Silicate mineral that exhibits a platy crystal structure and perfect cleavage.
Overburden	The soil, rock and other material which lie on top of the underlying mineral or other deposit, e.g., bedrock.
Penstock	A structure associated with a hydroelectric station designed to carry water from the intake to the turbine.
Pier	As part of a hydroelectric station, an abutment extending from the station, either upstream or downstream, and lending foundation support and directionality to water passed through the structure.

Pneumatic	Involving the mechanic properties associated with air or other gas pressure.
Powerhouse	A primary part of a hydroelectric facility where the turbines and generators are housed and where power is produced by falling water rotating the turbine blades.
Quartz	A mineral: an oxide of silicon which is abundant and widespread occurring as an important constituent in many igneous, sedimentary and metamorphic rocks.
Reservoir	A body of water collected and stored in an artificial lake behind a dam.
Riparian	Of or on a watercourse bank.
Runner	An enclosed water wheel that transforms the static and kinetic energy of the water into useful work.
Sedimentary	Rock formed by the deposition, alteration and/or compression and lithification of weathered rock debris, chemical precipitates, or organic sediments.
Sluice	An open channel designed to divert excess water which could be within the structure of a hydroelectric dam or separate of the main dam (see spillway).
Sluice gate	Gate used to regulate the flow of water through an opening usually used to pass water over or around dams.
Spillway	A passageway located near or at the top of a dam through which excess water is released or “spilled” past the dam without going through the turbine(s); as a safety valve for the dam, the spillwall must be capable of discharging major floods without damaging the dam while maintaining the reservoir level below some predetermined maximum level.
Stop log	A gate (sometimes made from squared lumber) which can be placed into an opening to shut off or regulate the flow of water.
Tailrace	A channel through which the water flows away from a hydroelectric plant following its discharge from the turbine(s).
Tailwater	The water from a generating station after it has passed through the turbine.
Till	Material derived from bedrock and overlying unconsolidated material and deposited directly by glacial ice with its characteristics dependent upon the source rock.

Trash rack	Bar screen with larger space openings installed to prevent logs, stumps and other larger solids from penetrating the intake.
Turbine	A mechanism in an electrical generation facility which converts the kinetic and potential energy of water (in the case of hydroelectric turbines) into mechanical energy which is then used to drive a generator converting mechanical to electrical energy.
Weir	A dam in the river to stop and raise the water.

APPENDIX A – PUBLIC NOTIFICATIONS

NOTICE OF COMMENCEMENT AND FIRST OPEN HOUSE: PROPOSED NEW POST CREEK HYDROELECTRIC PROJECT UNDER THE CLASS ENVIRONMENTAL ASSESSMENT FOR WATERPOWER PROJECTS

Ontario Power Generation Inc. (OPG) and its partner Coral Rapids Power LP (CRP), a wholly owned company of Taykwa Tagamou Nation, are proposing to develop approximately 25 megawatts of renewable hydroelectric power under the Ontario Waterpower Association (OWA) Class Environmental Assessment for Waterpower Projects through the construction of the New Post Creek generating station (Proposed Undertaking). The Proposed Undertaking will divert water from New Post Creek approximately seven kilometres upstream of New Post Falls, through penstocks to the generating station on the Abitibi River. The dam and water intake will be located on New Post Creek, whereas the powerhouse and tailrace channel will be located approximately 700 metres to the west, adjacent to the Abitibi River. Associated activities include improvements to existing access roads, establishment of a temporary construction site and installation of an approximately seven kilometre-long transmission line, which would connect to an existing Hydro One 115 kilovolt transmission line on the west side of the Abitibi River. The location of the Proposed Undertaking is shown on the map. The impacted zone of influence is on New Post Creek and a small area of the Abitibi River. The Proposed Undertaking is located about 100 kilometres north of the Town of Smooth Rock Falls and 13 kilometres northeast of OPG's Abitibi Canyon Generating Station.

Under the provincial Environmental Assessment Act, the Proposed Undertaking is subject to the Class Environmental Assessment (Class EA) for Waterpower Projects as a new project on a managed waterway. The Class EA planning process requires CRP and OPG to evaluate the positive and negative environmental effects of the Proposed Undertaking, and prepare an Environmental Report on both the construction and operation phases of the project.

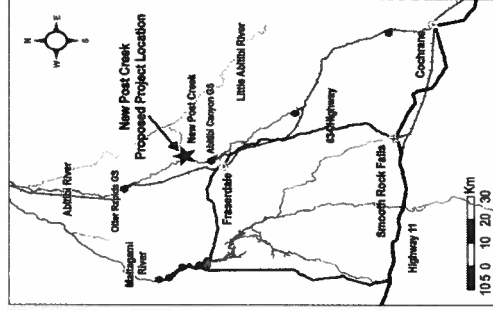
The Proposed Undertaking will require the deregulation of a small portion of land within the existing Little Abitibi Provincial Park and replacement of said lands to comply with the Provincial Parks and Conservation Reserves Act, 2006 [S.O. 2006, c. 12, s. 9(5)]. In order to facilitate this, the Class EA for Waterpower Projects process will be coordinated with the Ontario Ministry of Natural Resources' (MNR) Little Abitibi Provincial Park management statement amendment, its Class Environmental Assessment for Provincial Parks and Conservation Reserves (MNR Class EA, 2005), and the Crown Land Use Policy Atlas amendment to propose the deregulation of the lands required for the Proposed Undertaking.

The Proposed Undertaking is also expected to require changes to the Abitibi River Water Management Plan (WMP), which will be pursued in accordance with the MNR's planning requirements. The Proposed Undertaking will be screened under the Canadian Environmental Assessment Act. Over the next year, CRP and OPG will use the Class EA process as a basis for coordinating all future consultation required for the planning stage of the Proposed Undertaking. If the project proceeds according to the schedule, construction could begin in 2014.

To encourage public participation, CRP and OPG will be scheduling two rounds of open houses.

The first round will be held on Wednesday, Nov. 30, 2011 at the Curling Club (Reg Lamy Cultural Centre Lounge), 195 Fifth Street, in Smooth Rock Falls, from 4 – 8 p.m., and on Thursday, Dec. 1, 2011 at the Scout Hall, 438 11th Avenue in Cochrane, from 4 – 8 p.m.

NOTE: MNR and Ontario Parks will be hosting information sessions on their related proposed amendments concerning the Little Abitibi Provincial Park (amendments to park management direction, park boundary and Crown Land Use Policy Atlas), at the same time and location outlined in this Notice to allow consultation on both processes.



The open house will provide the public with more information about the Proposed Undertaking including some information about the preliminary layout of the proposed generating station. Anyone who attends will have the opportunity to speak directly with representatives from CRP, OPG and their environmental consulting team with regard to the OWA Class EA. In addition, OPG and MNR will have representatives present to answer questions regarding the expected changes to the WMP.

Your input and comments are important contributions in helping CRP and OPG develop an environmentally responsible project.

CRP and OPG will follow a separate process for notification and consultation with First Nations, Métis and other Aboriginal Communities, regulatory agencies, and interested stakeholders. Input received during all consultation processes will be considered and included as appropriate in the Environmental Report.

CRP and OPG have retained SENES Consultants Limited to undertake the Class EA process. For more information or to be put on the mailing list, please contact any of the following individuals:

Gillian MacLeod
Senior Environmental Advisor
Ontario Power Generation
700 University Avenue, H18
Toronto, ON M5G 1X6
Phone: (416) 592-3481
Email: gillian.macleod@opg.com

Phil Shantz
Manager – Aboriginal,
Land, Resource
and Northern Projects
SENES Consultants Limited
121 Granton Drive
Richmond Hill, ON L4B 3N4
Phone: (905) 764-9380
Email: pshantz@senes.ca

Wayne Ross
President
Coral Rapids Power
36 Birch Street South
Timmins, ON P4N 2A5
Phone: (705) 365-6116
Email: wross@coralrapidspower.com

Please visit us at: www.newpostcreek.com

Under the *Freedom of Information and Protection of Privacy Act (1987)* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number, and property location included in a submission will become part of the public record files for this Proposed Undertaking and will be released if requested, to any person.



opg.com

AVIS DE LANCEMENT ET DE LA PREMIÈRE JOURNÉE PORTES OUVERTES : PROJET HYDROÉLECTRIQUE DE NEW POST CREEK

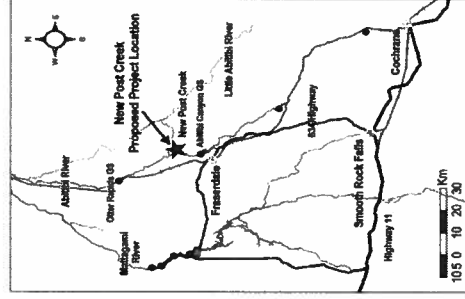
SOUS L'ÉVALUATION ENVIRONNEMENTALE DE PROJETS HYDROÉLECTRIQUES

Ontario Power Generation (OPG) et son associé Coral Rapids Power LP (CRP), une société à part entière de Taykwa Tagamou Nation, proposent de développer environ 25 mégawatts d'énergie hydroélectrique renouvelable sous l'évaluation environnementale de projets hydroélectriques de l'Ontario Waterpower Association (OWA), en construisant la centrale New Post Creek (projet). Ce projet fera dévier le cours d'eau du New Post Creek à environ 7 km en amont des chutes de New Post, par des conduites forcées vers la centrale hydroélectrique de la rivière Abitibi. Le barrage et la prise d'eau seront sur le New Post Creek, alors que la centrale et le canal de dérivation seront situés à environ 700 m à l'ouest, soit, à côté de la rivière Abitibi. Parmi les activités connexes, il y a l'amélioration des routes existantes, la création d'un chantier de construction temporaire et l'installation d'une ligne de transmission d'environ 7 km de long, qui se connectera à une ligne déjà existante, d'Hydro One, de 115 kilovolts, du côté ouest de la rivière Abitibi. Veuillez vous référer à la carte ci-dessous pour l'emplacement du projet. La zone d'impact sera sur le New Post Creek et une petite zone de la rivière Abitibi. Le projet est situé à environ 100 km au nord de la ville de Smooth Rock Falls et à 13 km au nord-est de la centrale OPG Abitibi Canyon.

Selon la Loi sur l'évaluation environnementale provinciale, le projet doit être soumis à l'évaluation environnementale (catégorie EE) pour des nouveaux projets hydroélectriques sur une voie navigable contrôlée. Le processus de planification de l'EE de cette catégorie de projet exige que le CRP et l'OPG évaluent les effets positifs et négatifs sur l'environnement et préparent un rapport environnemental sur les phases de construction et d'exploitation du projet.

Ce projet nécessitera une dérogation d'une petite portion du parc provincial de Little Abitibi et le remplacement de ces terres, pour se conformer aux lois des parcs provinciaux et réserves de conservation, 2006 (SO 2006, c. 12, art 9 (5)). Afin de faciliter cette démarche, le processus des projets hydroélectriques de catégorie EE sera coordonné avec l'amendement de l'énoncé de gestion du parc provincial Little Abitibi, l'évaluation environnementale pour les parcs provinciaux et des réserves de conservation (MRN catégorie EE, 2005) et l'amendement de l'atlas et des politiques d'aménagement des terres de la Couronne pour proposer la dérogation des terres requises pour le projet du ministère des Ressources naturelles de l'Ontario (MRN).

Le projet nécessitera des modifications au Plan de gestion des eaux de la rivière Abitibi (PGE), exécuté en conformité avec les exigences de planification du ministère des Ressources naturelles. Le projet sera analysé en vertu de la Loi canadienne d'évaluation environnementale. Au cours de la prochaine année, le CRP et l'OPG se baseront sur le processus de catégorie EE pour coordonner toutes consultations futures et nécessaires à la planification du projet. Si le projet se déroule selon le calendrier, la construction pourrait débuter en 2014.



Pour encourager la participation publique, le CRP et l'OPG planifient la tenue de deux séries de journées portes ouvertes. La première se tiendra le mercredi 30 novembre 2011, à Smooth Rock Falls, de 16 h à 20 h, au club de curling (Centre culturel Reg Lamy), au 195 5e rue, et le jeudi 1er décembre 2011, à Cochrane, de 16 h à 20 h, à la salle des scouts, au 431, 11e avenue. Remarque : Le MRN et Parc Ontario organiseront des séances d'information sur les modifications proposées au Parc provincial Little Abitibi (amendements sur la direction de la gestion du parc, la limite du parc et l'atlas et les politiques d'aménagement des terres de la Couronne), en même temps et aux mêmes endroits tels qu'indiqués dans cet avis afin de permettre une consultation sur les deux processus.

La journée portes ouvertes permettra d'offrir au public plus d'informations sur le projet, y compris certaines informations préliminaires sur la centrale proposée. Quiconque assistant à ces séances aura la possibilité de s'adresser aux représentants de la CRP, de l'OPG et de leur équipe d'experts-conseils en environnement au sujet de l'EE de l'OWA. Des représentants de l'OPG et du MRN seront, également, présents pour répondre aux questions sur les changements souhaités au PGE. Vos suggestions et vos commentaires sont importants pour aider le CRP et l'OPG à élaborer un projet écologiquement responsable.

Le CRP et l'OPG suivront un processus distinct pour la notification et la consultation avec les Premières Nations, les Métis et les autres communautés autochtones, les organismes de réglementation et les intervenants intéressés. Les commentaires reçus au cours de tous les processus de consultation seront examinés et inclus, selon la pertinence, dans le rapport environnemental.

Le CRP et l'OPG se sont alloués les services de SENES Consultants Limited pour entreprendre le processus d'EE. Pour de plus amples renseignements ou pour être inscrit sur la liste d'envoi, veuillez communiquer avec une des personnes ci-dessous :

Gillian MacLeod
Conseillère principale
en environnement

Ontario Power Generation
700, ave University, H18
Toronto, ON M5G 1X6
Tél. : (416) 592-3481
Courriel : gillian.macleod@opg.com

Phil Shantz
Gérant, Affaires autochtones,
terres, ressources et projets
du Nord
SENES Consultants Limited
121, promenade Granton
Richmond Hill, ON L4B 3N4
Tél. : (905) 764-9380
Courriel : pshantz@senes.ca

Wayne Ross
Président

Coral Rapids Power
36 Birch Street South
Timmins, ON P4N 2A5
Tél. : (705) 365-6116
Courriel : wross@coralrapidspower.com

Veuillez consulter notre site Internet au : www.newpostcreek.com

En vertu de la Loi (1987) sur l'accès à l'information et la protection de la vie privée et de la Loi sur l'évaluation environnementale, à moins d'indications contraires dans la soumission, tous renseignements personnels tels que le nom, l'adresse, le numéro de téléphone et le lieu, indiqués dans une soumission feront partie des registres publics à cet égard, et seront divulgués à quiconque qui en fait la demande.



ONTARIO POWER
GENERATION
opg.com

YOU ARE INVITED TO THE FINAL OPEN HOUSE: PROPOSED
NEW POST CREEK HYDROELECTRIC DEVELOPMENT PROJECT
UNDER THE CLASS ENVIRONMENTAL ASSESSMENT
FOR WATERPOWER PROJECTS

Ontario Power Generation Inc. (OPG) and its partner Coral Rapids Power LP (CRP), a wholly owned company of Taykwa Tagamou Nation, are proposing to develop approximately 25 megawatts of renewable hydroelectric power through the construction of the New Post Creek generating station (Proposed Undertaking). The Proposed Undertaking will divert water from New Post Creek approximately seven (7) kilometres upstream of New Post Falls, through penstocks to the generating station on the Abitibi River. The dam and water intake will be located on New Post Creek, whereas the powerhouse and tailrace channel will be located approximately 700 metres to the west, adjacent to the Abitibi River. Associated activities include: road construction, improvements to existing access roads, weir, penstock and generating station construction, possible establishment of a temporary construction camp, and installation of an approximately seven (7) kilometre transmission line, which would connect to an existing Hydro One 115-kilovolt transmission line on the west side of the Abitibi River. The location of the Proposed Undertaking is shown on the attached map. The anticipated zone of influence is on New Post Creek and a small area of the Abitibi River. The Proposed Undertaking is located about 100 kilometres north of the Town of Smooth Rock Falls and 13 kilometres northeast of OPG's Abitibi Canyon generating station.

Under the provincial Environmental Assessment Act, the Proposed Undertaking is subject to the Ontario Waterpower Association (OWA) Class Environmental Assessment for Waterpower Projects (Class EA) as a new project on a managed waterway. The Class EA planning process requires OPG and CRP to evaluate the positive and negative environmental effects of the Proposed Undertaking, and prepare an environmental report on both the construction and operation phases of the project.

The Proposed Undertaking will require the deregulation of an approximately 200-hectare portion of land within the existing Little Abitibi Provincial Park and replacement of an approximately 400-hectare park addition to comply with the Provincial Parks and Conservation Reserves Act, 2006 [S.O. 2006, c. 12, s. 9(5)]. In order to facilitate this, the Class EA for the Waterpower Projects process is coordinated with the Ontario Ministry of Natural Resources' (MNR), Class Environmental Assessment for Provincial Parks and Conservation Reserves (MNR Class EA for PPCR, 2005), and the Crown Land Use Policy Atlas amendment process.

The Proposed Undertaking will also require an amendment to the Abitibi River System Water Management Plan (WMP), which will be pursued in accordance with the coordinated planning process. OPG and CRP will use the OWA Class EA for Waterpower Projects process as a basis for coordinating all future consultation required for the planning stage of the Proposed Undertaking. If the project proceeds as per the schedule, construction could begin in 2014.

To encourage public participation, OPG and CRP have scheduled two sets of open houses. The first set, which introduced the Proposed Undertaking took place in November and December 2011. **The second and final set of open houses will be held on Wednesday, Dec. 5, 2012 at the Curling Club (Reg Lamy Cultural Centre Lounge), 195 Fifth Street, in Smooth Rock Falls, from 4 to 8 p.m., and on Thursday, Dec. 6, 2012 at the Scout Hall, 438 11th Avenue in Cochrane, from 4 to 8 p.m.**

The open houses will provide the public with information about the Proposed Undertaking, including anticipated environmental impacts and proposed mitigation. Anyone who attends will have the opportunity to speak directly with representatives of OPG and CRP, and their environmental consulting team with regard to the Class EA. In addition, OPG, CRP, and MNR will have representatives on hand to answer questions regarding the expected changes to the WMP. Ontario Parks staff will also be available to answer questions on the Class EA for Provincial Parks and Conservation Reserves, and the park boundary deregulation/regularization process. Your input and comments are important to helping OPG and CRP develop an environmentally responsible project.

OPG, CRP, and MNR are also conducting a separate process to consult with potentially affected First Nations communities and Métis organizations. Input received during all consultation processes will be considered and included as appropriate in the environmental report.

OPG and CRP have retained SENES Consultants Limited to undertake the Class EA process. For more information or to be added to the mailing list, please contact:

Gillian MacLeod
Senior Environmental Advisor
Ontario Power Generation
700 University Avenue, H18
Toronto, Ontario, M5G 1X6
Phone: (416) 592-3481
Email: gillian.macleod@opg.com

Wayne Ross
President
Coral Rapids Power
670 Airport Road, Unit 206
Timmins, Ontario, P4P 1J2
Phone: (705) 531-3093
Email: wross@coralrapidspower.com

Phil Shantz
Manager – Aboriginal, Land, Resource and Northern Projects
SENES Consultants Limited
121 Granton Drive
Richmond Hill, Ontario, L4B 3N4
Phone: (905) 764-9380
Email: pshantz@senes.ca.

Please visit us at: www.newpostcreek.com

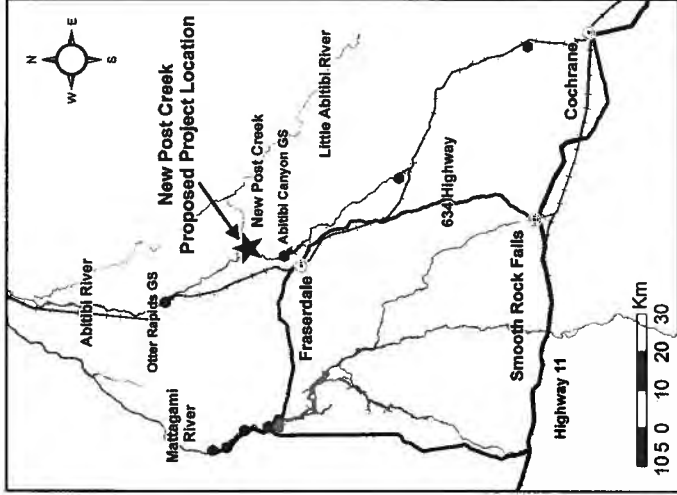
Under the Freedom of Information and Protection of Privacy Act (1987) and the Environmental Assessment Act, unless otherwise stated in the submission, information will be collected in accordance with the Act. With the exception of personal information, all comments will be part of the public record.



ONTARIOPOWER
GENERATION
opg.com

INVITATION À LA DERNIÈRE JOURNÉE PORTES OUVERTES :
PROJET HYDROÉLECTRIQUE DE NEW POST CREEK
SOUVIS À L'ÉVALUATION ENVIRONNEMENTALE DE PROJETS
HYDROÉLECTRIQUES

Ontario Power Generation (OPG) et son associée Coral Rapids Power LP (CRP), une société à part entière de Taykwa Tagamou Nation, proposent de développer environ 25 mégawatts d'énergie hydroélectrique renouvelable par l'entremise de la construction de la centrale New Post Creek (Projet). Ce projet fera dévier le cours d'eau du New Post Creek à environ 7 km en amont des chutes de New Post, par des conduites forcées vers la centrale hydroélectrique de la rivière Abitibi. Le barrage et la prise d'eau seront sur le New Post Creek, alors que la centrale et le canal de dérivation seront situés à environ 700 m à l'ouest, soit, à côté de la rivière Abitibi. Parmi les activités connexes, il y a la construction et l'amélioration de routes; la construction d'un barrage, d'une conduite forcée et d'une centrale hydroélectrique; la création possible d'un camp de construction temporaire et l'installation d'une ligne de transmission d'environ sept kilomètres, qui se connectera à une ligne déjà existante d'Hydro One de 115 kilovolts du côté ouest de la rivière Abitibi. Veuillez vous référer à la carte ci-dessous pour l'emplacement du projet. La zone d'impact sera sur le New Post Creek et une petite section de la rivière Abitibi. Le projet est situé à environ 100 km au nord de la ville de Smooth Rock Falls et à 13 km au nord-est de la centrale OPG Abitibi Canyon.



Selon la *Loi sur l'évaluation environnementale* provinciale, le projet doit être soumis à l'évaluation environnementale (catégorie EE) de l'Ontario Waterpower Association (OWA) pour des nouveaux projets hydroélectriques sur une voie navigable contrôlée. Le processus de planification de l'EE de cette catégorie de projet exige que l'OPG et la CRP évaluent les effets positifs et négatifs sur l'environnement et préparent un rapport environnemental sur les phases de construction et d'exploitation du projet.

Ce projet nécessitera une déréglementation d'environ 200 ha du parc provincial Little Abitibi et le remplacement d'environ 400 ha. de ces terres, pour se conformer aux lois des parcs provinciaux et réserves de conservation, 2006 [SO 2006, c. 12, art 9 (5)]. Afin de faciliter cette démarche, le processus des projets hydroélectriques de catégorie EE est coordonné avec l'évaluation environnementale pour les parcs provinciaux et les réserves de conservation (MNR catégorie EE, 2005) et l'amendement de l'atlas et des politiques d'aménagement des terres de la Couronne.

Le projet nécessitera des modifications au Plan de gestion des eaux de la rivière Abitibi (PGE), exécuté en conformité avec les exigences de planification coordonnée. Au cours de la prochaine année, l'OPG et la CRP se baseront sur le processus de catégorie EE de l'OWA pour coordonner toutes consultations futures et nécessaires à la planification du projet. Si le projet se déroule selon le calendrier, la construction pourrait débuter en 2014.

Pour encourager la participation publique, l'OPG et la CRP ont planifié la tenue de deux séries de sessions portes ouvertes. **La première s'est tenue**

en novembre et décembre 2011. La deuxième et dernière série de sessions aura lieu à Smooth Rock Falls, de 16 h à 20 h, au club de curling (Centre culturel Reg Lamy), au 195 5^e rue, et le mercredi, 5 décembre 2012, à Cochrane, de 16 h à 20 h, à la salle des scouts, au 438, 11^e avenue, le jeudi, 6 décembre, 2012.

La journée porte ouverte permettra d'offrir au public plus d'information sur le projet, y compris les impacts environnementaux prévus ainsi que les mesures pour atténuer ces effets. Quiconque assistant à ces séances aura la possibilité de s'adresser aux représentants de l'OPG et la CRP, ainsi qu'à leur équipe d'experts-conseils en environnement au sujet de l'EE. Des représentants de l'OPG, de la CRP et du MNR seront également présents pour répondre aux questions sur les changements souhaités au PGE. Des représentants de Parcs Ontario seront disponibles pour répondre aux questions sur l'EE pour les Parcs provinciaux et Réserves de conservation quant à la réglementation/déréglementation de certaines terres. Vos suggestions et vos commentaires sont importants pour aider l'OPG et la CRP à élaborer un projet écologiquement responsable.

L'OPG, la CRP et le MNR suivront un processus distinct pour la consultation avec les Premières Nations, les Métis et les autres communautés autochtones. Les commentaires reçus au cours de tous les processus de consultation seront examinés et inclus, selon la pertinence, dans le rapport environnemental.

L'OPG et la CRP ont retenu les services de SENES Consultants Limited pour entreprendre le processus d'EE. Pour de plus amples renseignements ou pour être inscrit sur la liste d'envoi, veuillez communiquer avec les suivants :

Gillian MacLeod
Conseillère principale en environnement
Ontario Power Generation
700, av. University, H18
Toronto, ON M5G 1X6
Tél. : (416) 592-3481
Courriel : gillian.macleod@opg.com

Wayne Ross
Président
Coral Rapids Power
206-670 rue Airport
Timmins, ON, P4N 1J2
Tél. : (705) 531-3093
Courriel : wross@coralrapidspower.com

Phil Shantz
Gérant, Affaires autochtones, terres, ressources et projets du Nord
SENES Consultants Limited
121, promenade Granton
Richmond Hill, ON L4B 3N4
Tél. : (905) 764-9380
Courriel : pshantz@senes.ca

Veuillez consulter notre site Web au : www.newpostcreek.com

En vertu de la *Loi de 1987 sur l'accès à l'information* et la *protection de la vie privée* et de la *Loi sur les évaluations environnementales*, à moins d'indications contraires dans la soumission, tout renseignement sera récupéré en accord avec la loi. À l'exception de renseignements personnels, chaque commentaire fera parti du registre public à cet égard.



ONTARIOPOWER
GENERATION
opg.com

APPENDIX B – NEWSLETTERS

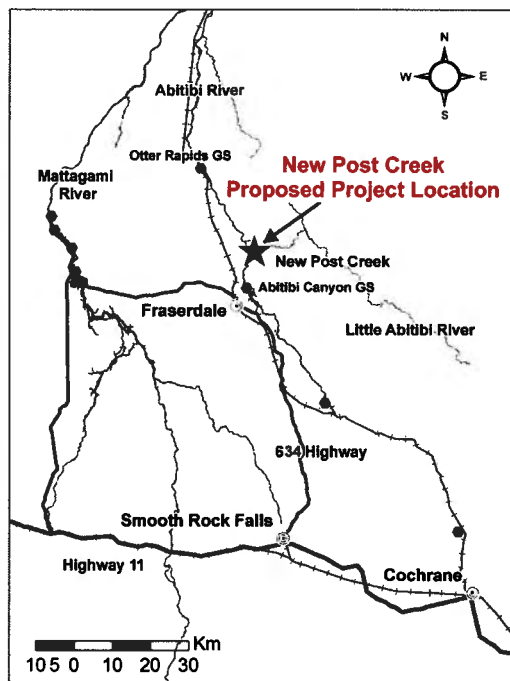
NEW POST CREEK HYDROELECTRIC DEVELOPMENT PROJECT NEWS

NEWSLETTER #1, NOVEMBER 2011

PROPOSED NEW POST CREEK HYDROELECTRIC PROJECT

Ontario Power Generation Inc. (OPG) and its partner Coral Rapids Power LP (CRP) [a wholly owned company of Taykwa Tagamou First Nation (TTN)] are proposing to develop approximately 25 megawatts of renewable hydroelectric power through the construction of a generating station on New Post Creek near its outlet to the Abitibi River (Proposed Undertaking or Project).

The Proposed Undertaking is located about 100 km north of the Town of Smooth Rock Falls and 13 km northeast of OPG's Abitibi Canyon Generating Station. The Project is located in the heart of TTN's traditional territory and near one of the community's Reserves.



The proposed generating station will include a dam with a water intake and penstock, powerhouse and tailrace channel. Associated activities include improvements to existing access roads, establishment of a construction site and installation of an approximately 7 km long transmission line that would connect to an existing transmission line on the west side of the Abitibi River.

The Proposed Undertaking occurs in an area that has previously been disturbed by both the original New Post Creek diversion and by forest harvesting that has occurred over the last twenty years. While environmental studies have only recently commenced it is our view and that of the environmental team that the Project represents a good economic opportunity with very limited environmental impacts owing not only to the past disturbed nature of the existing lands and resources, but that there are likely limited impacts from the Project as well. Strong efforts will be made during the environmental assessment process to ensure the net potential effects on the environment such as the fisheries can be mitigated. The environmental assessment looks at both construction and operational impacts.

The New Post Creek Hydroelectric Project has the potential to provide enough electricity to power approximately 20,000 homes. While not a large project, the Proposed Undertaking will produce several hundred person years of construction employment in the region and represents an economic opportunity for TTN.

Please take a few moments to read about this renewable energy project, and plan on attending one of our open houses that are described below. Listed below are phone numbers of the project team including the environmental consultant and a web site listed where you can learn more about the New Post Creek Project.

Heather Ferguson, Project Manager, OPG
Wayne Ross, President, Coral Rapids Power

THE ENVIRONMENTAL ASSESSMENT PROCESS

Under the provincial *Environmental Assessment Act*, the Proposed Undertaking is subject to the *Class Environmental Assessment (Class EA) for Waterpower Projects* as a new project on a managed waterway. The Class EA planning process requires CRP and OPG to evaluate the



**ONTARIO POWER
GENERATION**

positive and negative environmental effects of the Proposed Undertaking and prepare an Environmental Report on both the construction and operation phases of the Project.

To carry out the Proposed Undertaking, the deregulation of a small portion of the Little Abitibi Provincial Park is necessary to align with requirements of the *Provincial Parks and Conservation Reserves Act, 2006*. Replacement lands adjacent to the Park boundary have been identified resulting in a larger park and enhanced ecological integrity. TTN and OPG were involved in the process to determine these replacement lands. The Class EA for Waterpower Projects process will be coordinated with the Ontario Ministry of Natural Resources' Crown Land Use amendment and Class EA processes to amend the Park boundary for the Proposed Undertaking.



Photo: George Ross of TTN and Geri Poisson of Beacon Environmental carrying out Vegetation Surveys along New Post Creek

The Proposed Undertaking is also expected to require changes to the Abitibi River Water Management Plan, which will be pursued in accordance with the Ontario Ministry of Natural Resources' planning requirements. The Proposed Undertaking will also be screened under the Canadian Environmental Assessment Act. Over the next year, CRP and OPG will use the Class EA process as a basis for coordinating all future consultation required for the planning stage of the Proposed Undertaking. If the Project proceeds as per the schedule, construction could begin in 2014.

OPG AND CRP ARE SEEKING INPUT AS PART OF THE ENVIRONMENTAL ASSESSMENT PROCESS

To encourage public participation, CRP and OPG will be scheduling two rounds of Open Houses to introduce the Project. The first round of Open Houses will be held on Wednesday, November 30, 2011 at the Curling Club (Reg Lamy Cultural Centre Lounge), 195 5th Street in Smooth Rock Falls, from 4:00pm – 8:00 pm., and on Thursday December 1, 2011 at the Scout Hall, 438 11th Avenue in Cochrane from 4:00 to 8:00 pm.

NOTE: MNR and Ontario Parks will be hosting information sessions on their related proposed amendments concerning the Little Abitibi Provincial Park (amendments to park management direction, park boundary and Crown Land Use Policy Atlas), at the same time and location noted in this Notice to allow consultation on both processes.

FOR MORE INFORMATION

CRP and OPG has retained SENES Consultants Limited to undertake the Class EA process. For more information or to be put on the mailing list, please contact:

Gillian MacLeod, Senior Environmental Advisor, OPG, 700 University Avenue, H18, Toronto, Ontario, M5G 1X6, phone: (416) 592-3481, e-mail: gillian.macleod@opg.com; **Wayne Ross**, President of CRP, 36 Birch Street South, Timmins, Ontario, P4N 2A5, (705) 365-6116, wross@coralrapidspower.com; or **Phil Shantz**, Manager, – Aboriginal, Land, Resource and Northern Projects, SENES Consultants Limited, 121 Granton Drive, Richmond Hill, Ontario, L4B 3N4, phone: (905) 764-9380, e-mail: pshantz@senes.ca.

Please visit us at: www.newpostcreek.com.



**ONTARIO POWER
GENERATION**

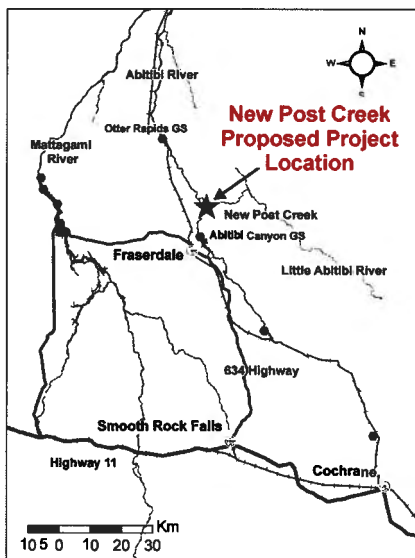
NEW POST CREEK HYDROELECTRIC DEVELOPMENT PROJECT NEWS

NEWSLETTER #2, NOVEMBER 2012

PROPOSED NEW POST CREEK HYDROELECTRIC PROJECT

Ontario Power Generation Inc. (OPG) and its partner Coral Rapids Power LP (CRP) [a wholly owned company of Taykwa Tagamou Nation (TTN)] are proposing to develop approximately 25 megawatts of renewable hydroelectric power through the construction of a generating station on New Post Creek near its outlet to the Abitibi River (Proposed Undertaking or Project).

The Proposed Undertaking is located about 100 km north of the Town of Smooth Rock Falls and 13 km northeast of OPG's Abitibi Canyon Generating Station. The Project would be located about 4 km upstream of New Post Creek Falls. The Project is located in the heart of TTN's traditional territory and near one of the community's Reserves.



The proposed generating station will include a dam/weir structure with a water intake and penstock, powerhouse and tailrace channel. Associated activities include improvements to the existing access road to the site and installation of an approximately 7 km long transmission line that would connect to an existing transmission line on the west side of the Abitibi River.

The Proposed Undertaking occurs in an area that has previously been disturbed by the original New Post Creek diversion. Some of the technical and environmental studies undertaken have included:

spring spawning surveys, water sampling, archaeology and cultural heritage, vegetation assessments, flow monitoring and aquatic habitat mapping amongst others.

Most of the environmental studies have been completed and demonstrate that the Project represents a good economic opportunity with limited environmental impacts most of which can be mitigated through appropriate design. Some of the key findings of the work include:

- The proposed project occurs in an area previously impacted by forest harvesting and there are no particularly rare, endangered or unique plants or plant communities impacted by the project.
- Given the recent forest harvesting, the area is not currently good habitat for woodland caribou use.
- New Post Creek has a fairly impoverished fish community and therefore impacts on fish are considered to be minimal.
- No effects are expected on archaeological resources.
- The project will allow for a new and safer portage around New Post Creek Falls.
- OPG and CRP have also been working with TTN and the Ontario Ministry of Natural Resources (MNR) on an operating pattern for the facility that minimizes negative impacts on fisheries at the base of New Post Creek Falls and accounts for aesthetics as well as other uses and considerations.

The New Post Creek Hydroelectric Project has the potential to provide enough electricity to power approximately 20,000 homes. The Proposed Undertaking will produce several hundred person years of construction employment in the region and will represent a long term economic benefit for TTN.

Please take a few moments to read this newsletter, and plan on attending one of the open houses that are described below. Listed at the end of the newsletter are phone numbers of the project team. There is also a web site listed where you can learn more about the New Post Creek Project.

Matt MacDonald, Project Manager, OPG
Wayne Ross, President, Coral Rapids Power



**ONTARIO POWER
GENERATION**

THE ENVIRONMENTAL ASSESSMENT PROCESS

Under the provincial Environmental Assessment Act, the Proposed Undertaking is subject to the Class Environmental Assessment (Class EA) for Waterpower Projects as a new project on a managed waterway. The Class EA planning process requires CRP and OPG to evaluate the positive and negative environmental effects of the Proposed Undertaking and prepare an Environmental Report on both the construction and operation phases of the Project.

To carry out the Proposed Undertaking, the deregulation of approximately a 200 hectares portion of the Little Abitibi Provincial Park is necessary to align with requirements of the Provincial Parks and Conservation Reserves Act, 2006. Approximately 400 ha of replacement lands adjacent to the Park boundary have been identified resulting in a larger park and enhanced ecological integrity. TTN and CRP along with MNR and Ontario Parks were involved in the process to determine these replacement lands. The Class EA for Waterpower Projects process will be coordinated with MNR's Crown Land Use amendment and Class EA for Provincial Parks and Conservation Reserves processes to amend the Park boundary for the Proposed Undertaking.



Photo: Geotechnical Investigations

The Proposed Undertaking will also require an administrative amendment to the Abitibi River Water Management Plan, which will be completed in accordance with MNR's planning requirements. CRP and OPG will use the Waterpower Class EA process as a basis for coordinating all future consultation required for the planning stage of the Proposed Undertaking. If the Project proceeds as per the schedule, construction could begin in 2014.

OPG AND CRP ARE SEEKING INPUT AS PART OF THE ENVIRONMENTAL ASSESSMENT PROCESS

To encourage public participation, CRP and OPG scheduled two sets of Open Houses. The first set of Open Houses occurred in 2011. The second and last round of Open Houses will be held on Wednesday, December 5, 2012 at the Curling Club (Reg Lamy Cultural Centre Lounge), 195 5th Street in Smooth Rock Falls, from 4:00pm – 8:00pm., and on Thursday December 6th, 2012 at the Scout Hall, 438 11th Avenue in Cochrane from 4:00 to 8:00 pm. MNR and Ontario Parks staff will be in attendance.

FOR MORE INFORMATION

CRP and OPG have retained SENES Consultants Limited to undertake the Class EA process. For more information or to be put on the mailing list, please contact any of the following people:

Gillian MacLeod, Senior Environmental Advisor, OPG, 700 University Avenue, H18, Toronto, Ontario, M5G 1X6, phone: (416) 592-3481, e-mail: gillian.macleod@opg.com

Wayne Ross, President, Coral Rapids Power, 670 Airport Rd, Unit 206 Timmins, Ontario, P4P 1J2, phone (705) 531-3093, e-mail: wross@coralrapidspower.com

Phil Shantz, Manager - Aboriginal, Land, Resource and Northern Projects, SENES Consultants Limited, 121 Granton Drive, Richmond Hill, Ontario, L4B 3N4, phone: (905) 764-9380, e-mail: pshantz@senes.ca

For more information, please visit our web site at: www.newpostcreek.com.



ONTARIO POWER
GENERATION

APPENDIX C – PRESENTATION PANELS FROM OPEN HOUSE ROUND #1

WELCOME

Open House

- Thank you for taking time to visit this Open House.
- Please fill out a Comment Sheet and leave it with us, or take it home and return it later to the address provided.



- A project representative will be glad to answer your questions.
- Your input and comments are an important contribution to helping us develop an environmentally responsible project.



ONTARIO POWER
GENERATION

Purpose of this Open House

Open House

- To introduce you to Ontario Power Generation Inc.'s (OPG) and Coral Rapid Power's LP (CRP) plans to develop a hydroelectric generating station on New Post Creek.



New Post Creek Today

- To seek your feedback at this early stage on local environmental considerations, issues or concerns that should be addressed through the environmental assessment process.



ONTARIO POWER
GENERATION

Who is Ontario Power Generation?

Open House

- OPG is an Ontario-based electricity generation company whose principal business is the generation of electricity in Ontario.
- OPG focuses on the efficient production of electricity from its generation assets, while operating in a safe, open and environmentally responsible manner.
- OPG is a commercial company, owned by the Province of Ontario – its sole shareholder.
- OPG has been given a mandate from the Province of Ontario to develop and expand its hydroelectric capacity.
- This Project will provide more clean, reliable and renewable electricity for Ontario.



ONTARIO POWER
GENERATION

Who is Coral Rapids Power?

Open House

- Coral Rapids Power (CRP) is a company formed and wholly owned by the Taykwa Tagamou Nation (TTN).
- CRP was incorporated by the TTN Chief and Council in 2004 as a vehicle to carry out potential commercial activities related to electricity generation.
- CRP's purpose is to enter into the electricity generation business in Ontario.
- In April 2006, a Memorandum of Understanding was signed between Ontario Power Generation Inc. (OPG) and the Taykwa Tagamou Nation (TTN) to jointly explore hydroelectric development opportunities within the Abitibi River drainage basin, north of Highway 11.
- As a result of this initiative, a potential waterpower generation location was identified on New Post Creek.
- A Grievance Settlement was completed in November 2007 which included a Partnership Term Sheet Agreement between OPG and CRP to move forward with a potential development of the New Post Creek Project. Subsequently in December 2008 the Partnership Agreements were signed.

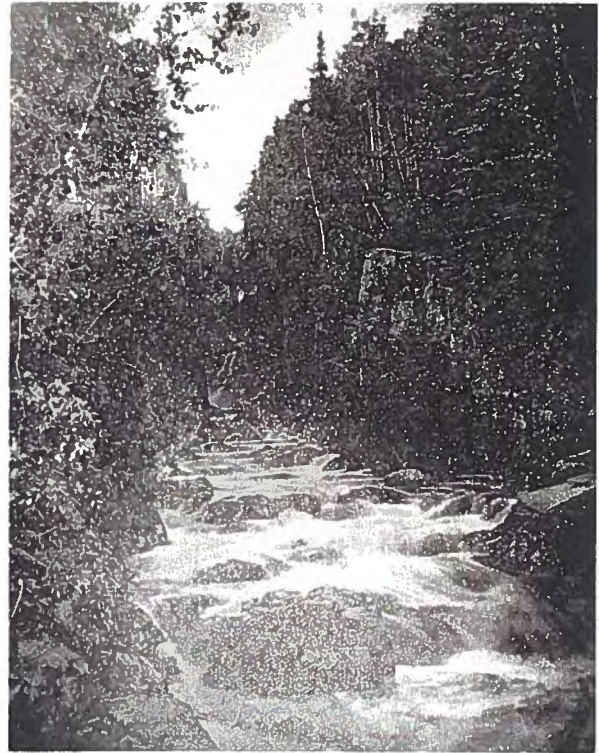


ONTARIO POWER
GENERATION

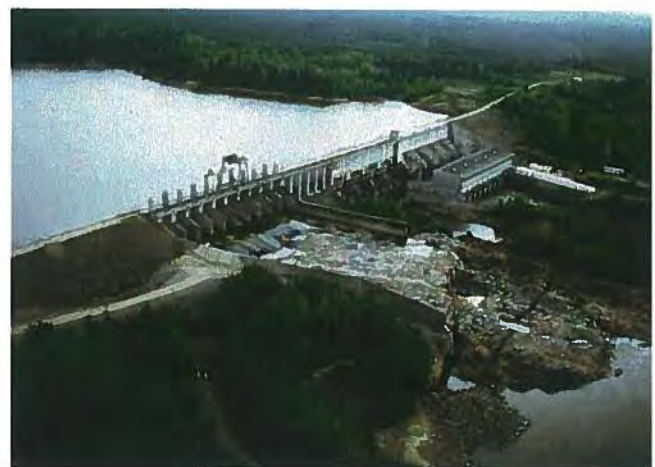
History of New Post Creek

Open House

- New Post Creek, or Cheepilloya Sebee as it is known in Cree (English translation: Great Partridge River) played an important role in the lives of the people of the Taykwa Tagamou Nation (TTN).
- As the only source of fresh, clear water fed from muskeg in the area, it was a popular camping spot for TTN families who were travelling to and from the Bad River system for fishing, hunting and trapping.
- TTN members have indicated that the Creek was only navigable by canoe for most of its length during the spring runoff, and sometimes during the fall after significant rain events. A short portage route which tracks close to the Hudson Bay Company (HBC) site was used to bypass New Post Creek Falls and access the Abitibi River.
- According to TTN elders, In the summer the flow of New Post Creek below the falls was often just a trickle. It is likely that the creek would have had a flow of 1 or 2 cubic meters per second (cms).
- In 1963 flows were diverted from the Little Abitibi River into New Post Creek to increase flow and therefore generation at Otter Rapids Generating Station.



Original New Post Creek



Otter Rapids Generating Station

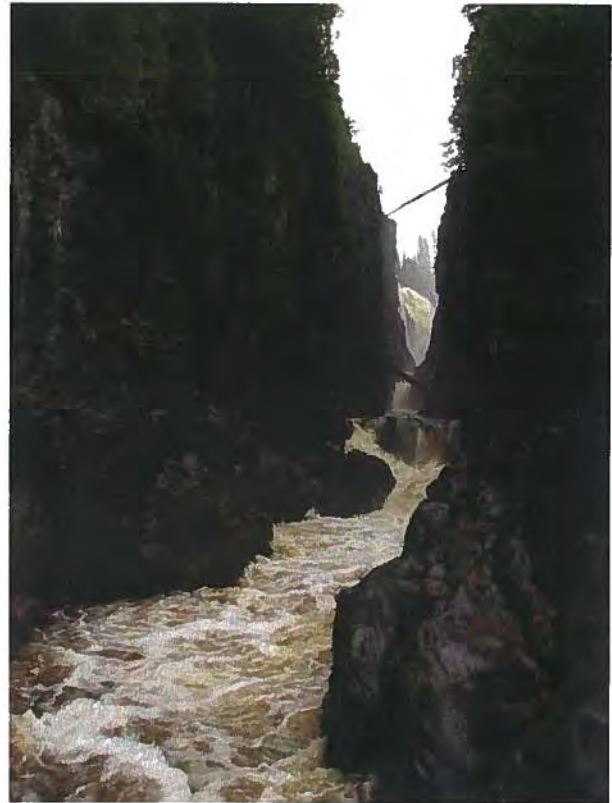


ONTARIO POWER
GENERATION

New Post Creek Today

Open House

- The original diversion has significantly altered the Creek.
- Today, flows on New Post Creek and the Abitibi River are regulated by the Abitibi River System Water Management Plan.

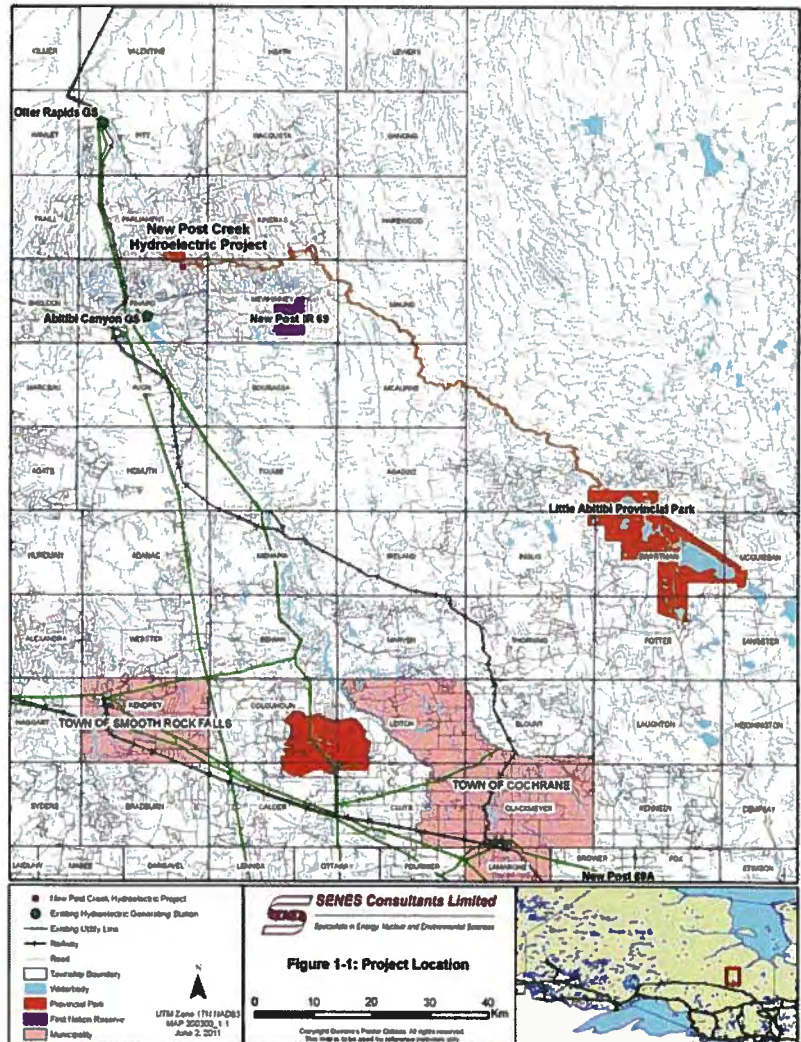


ONTARIO POWER
GENERATION

Project Location

Open House

- The proposed New Post Creek Project is located in the District of Cochrane within the Geographic Township of Pinard.
- Approximately 100 kilometres (km) north of the Town of Smooth Rock Falls, 13 km northeast of Abitibi Canyon Generating Station and 20 km south of Otter Rapids Generating Station.
- A small part of the Project is currently within Little Abitibi Provincial Park (LAPP).
- The proposed generating station would be located on Abitibi River shore lands with the intake at New Post Creek approximately 6 km upstream of its outlet to the Abitibi River.



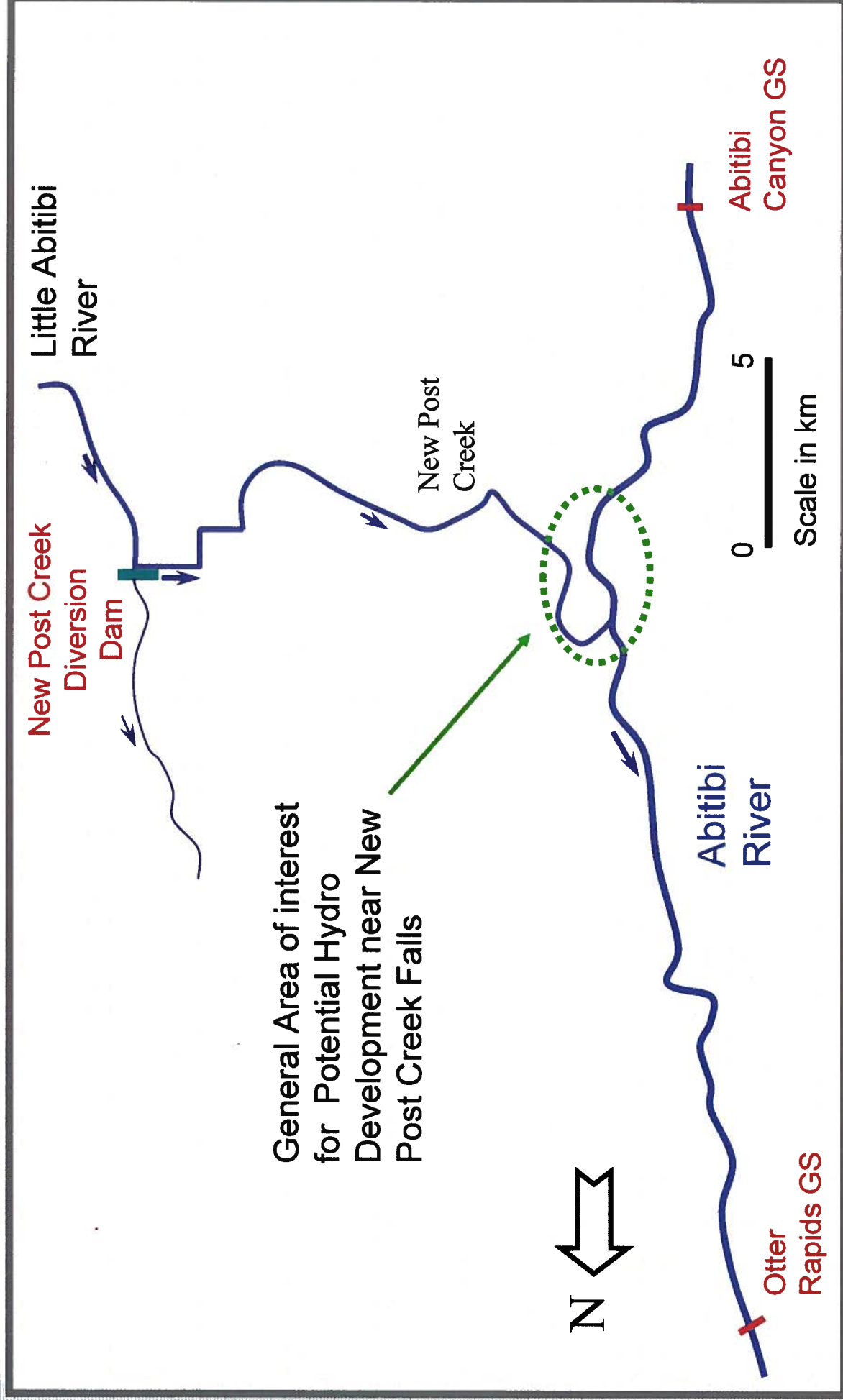
General Location



ONTARIO POWER
GENERATION

New Post Creek System

Open House



ONTARIO POWER
GENERATION

What are OPG and CRP Proposing?

Open House

- A new hydroelectric generating station with a capacity in the order of 25 Megawatts (MW) that would produce enough electricity to meet the needs of 25,000 homes (approximately 125 Gigawatt hours (GWh)).
- The proposed intake and spillway would be located about 4 km upstream of New Post Creek Falls and would divert a portion of New Post Creek flows through turbines that would discharge through a powerhouse located on the east shore of the Abitibi River.
- The project is located about 10 km downstream from the Abitibi Canyon Generating Station.
- The proposed Project will consist of the following primary project components/structures:
 - ◆ Intake and spillway structures located on New Post Creek;
 - ◆ Water conveyance system that includes shallow buried penstocks and possibly a portion of open water canal;
 - ◆ Powerhouse structure with multiple generating units located on the Abitibi River; and,
 - ◆ Switchyard and approximately 7 km transmission line that would cross the Abitibi River.
- The engineering team is currently optimizing the design of the Project. This includes the design of the spillway and intake structures, as well as forebay levels. The extent of shoreline to be inundated upstream of the intake is being assessed as part of this exercise.



General Location of the Intake
on New Post Creek



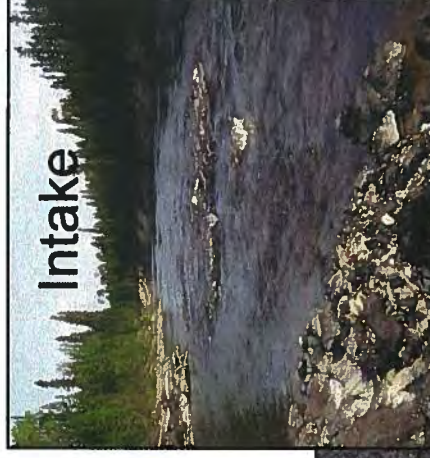
General Location of the Powerhouse
and Tailrace on the Abitibi River



ONTARIO POWER
GENERATION

3D Image of the New Post Creek Site

Open House



ONTARIO POWER
GENERATION

Open House

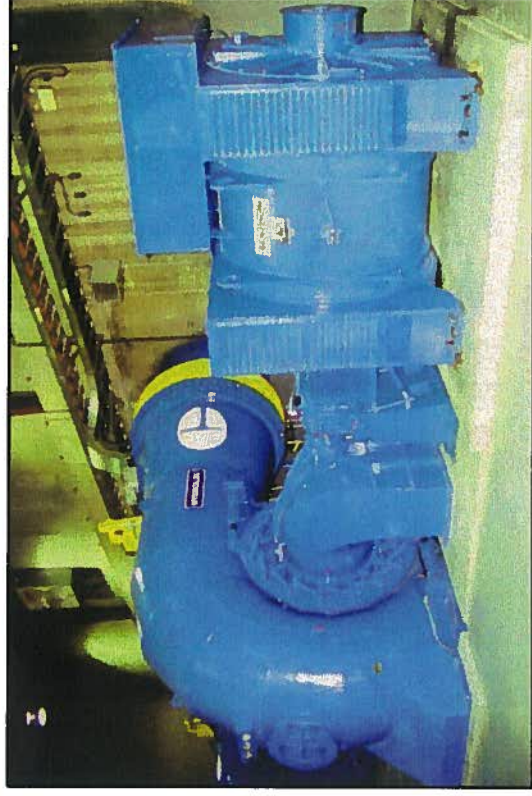


Proposed Project Components

Open House



Powerhouse & Tailrace



Turbine & Generator



Obermeyer Spillway Gate



Twin Buried Penstocks

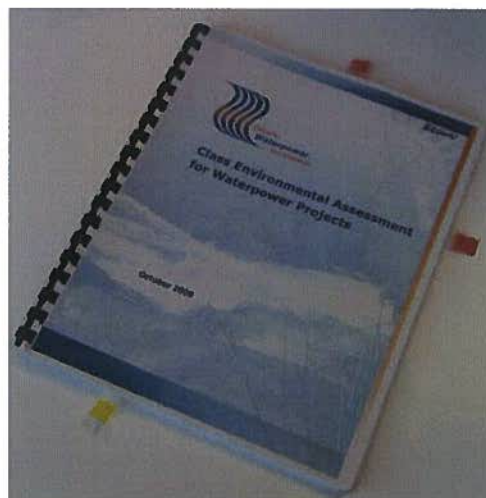


ONTARIO POWER
GENERATION

Environmental Assessment Process

Open House

- Under the provincial *Environmental Assessment Act*, the Proposed Undertaking is subject to the Class Environmental Assessment (Class EA) for Waterpower Projects as a new project on a managed waterway.
- A federal screening environmental assessment is also required.
- The Class EA planning process requires CRP and OPG to evaluate the positive and negative environmental effects of the Proposed Undertaking and prepare an Environmental Report.
- The Class EA will examine the following components:
 - ◆ Aquatic Environment (impact on fish habitat/ movement and impacts on other aquatic life)
 - ◆ Terrestrial Environment (habitat and flora and fauna)
 - ◆ Socio-Economic Environment (local economy, local social and economic use)
 - ◆ First Nations, Métis and Aboriginal communities (e.g. rights, values, uses and interests) and
 - ◆ Archaeological Resources.



Copies of the Class EA are available from www.owa.ca



ONTARIO POWER
GENERATION

Proposed Project and Little Abitibi Provincial Park

Open House

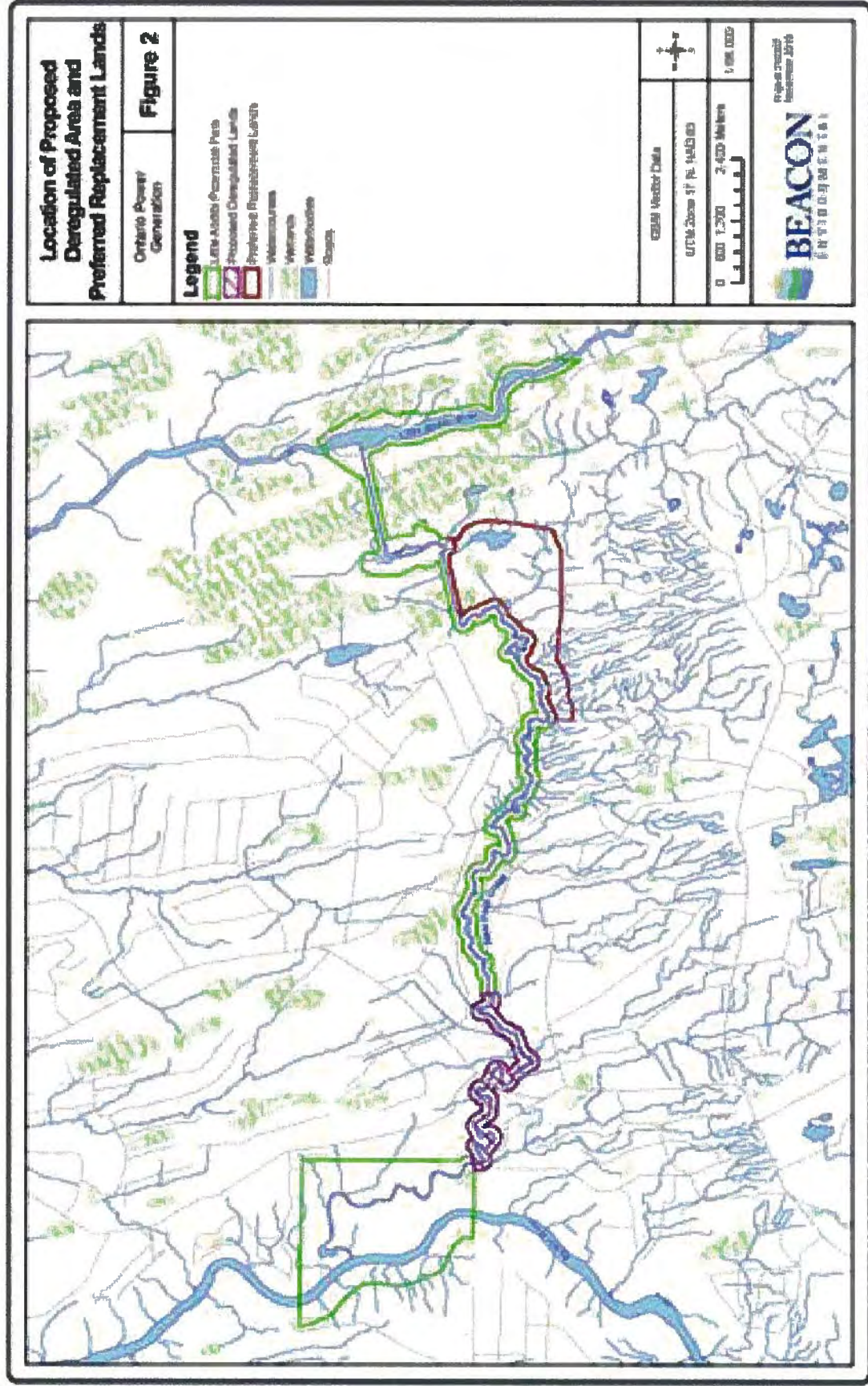
- To carry out the Proposed Undertaking the deregulation of a small portion of the Little Abitibi Provincial Park is needed to align with requirements of the Provincial Parks and Conservation Reserves Act, 2006.
- Replacement lands adjacent to the Park boundary have been identified resulting in a larger Park and enhanced ecological integrity.
- TTN and OPG were involved in the process to determine these replacement lands.
- The Class EA for Waterpower Projects process will be coordinated with the Ontario Ministry of Natural Resources Crown land use amendment and Class EA process to amend the park boundary for the Proposed Undertaking.



ONTARIO POWER
GENERATION

Lands to be Replaced for Lake Abitibi Provincial Park

Open House



ONTARIO POWER
GENERATION

Other Facilities

Open House

This Project may require a number of other facilities, such as:

- **A temporary construction camp to service workers.**
- **The construction camp would be in place for 2 to 3 years.**
- **Upgrading of access roads to the proposed Generating Station Site.**
- **A concrete batch plant for construction.**
- **7 km transmission line to connect the generating station to the grid.**



Existing access road to the Site

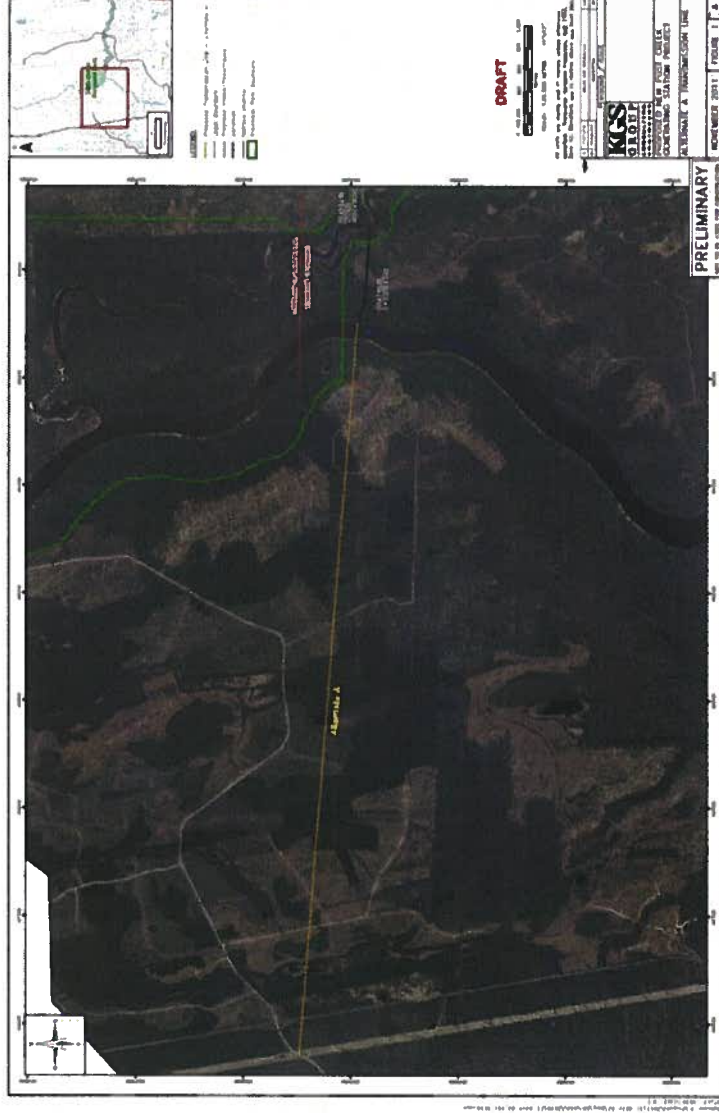


**ONTARIO POWER
GENERATION**

Transmission

Open House

- An approximately 7 kilometer long 115 kilovolt transmission line would be required to connect the generating station to an existing transmission line west of the Abitibi River.
- This would be a wooden pole line except for a couple steel structures which would be needed to span the River.
- The transmission line right-of-way would be approximately 40 meters wide.
- The transmission line generally occurs in an area that has been subject to forest harvesting over the last 15 years.



ONTARIO POWER
GENERATION

Operations

Open House

- The final operating regime for the Project will be determined during the Class EA and Water Management process.
- OPG, CRP and the relevant government agencies will need to agree to a minimum spring spawning compensation flow and a minimum year round flow.
- These flow requirements are expected to balance off fisheries considerations, economic feasibility and TTN's historic interests and concerns.
- The Project will not change the total volume of water flowing into the Abitibi River.



Water Management Plan
for the Abitibi River System



ONTARIO POWER
GENERATION

Environmental Assessment Studies

Open House

- Preliminary field work associated with assessing the environmental effects was initiated in 2009.
- More comprehensive field work was carried out in 2010 and 2011.
- The effects of the Project during construction and operation are now being assessed.
- Measures to avoid, prevent, eliminate, reduce, mitigate and compensate for negative effects will be identified.
- Measures to enhance positive effects will also be identified.



Field research underway in the study area



ONTARIO POWER
GENERATION

Aquatic and Fisheries Assessment

Open House

- Fisheries field work was initiated in 2009 to assess habitat, fish community and fish spawning locations.
- Fisheries field work was expanded in 2011 to further assess habitat, fish community and spawning locations, and also assess mercury levels in fish.
- Above the Falls, New Post Creek has a simple and sparse fish community.
- Below the Falls some walleye and sturgeon spawning has been noted.
- Whitefish spawning was not observed over the 3 year period.
- CRP and OPG are committed to working with all interested people on mitigating and compensating as appropriate, the possible effects of the Project on the aquatic environment.



ONTARIO POWER
GENERATION

Terrestrial Environment

Open House

- Terrestrial environment studies are being carried out on all areas impacted by the Project (e.g., generating station, transmission line).
- The studies include assessing the Project's potential impact on:
 - ◆ caribou
 - ◆ moose
 - ◆ forest birds
 - ◆ raptors
 - ◆ waterfowl
 - ◆ aquatic feeding areas
 - ◆ vegetation
 - ◆ Species at Risk



ONTARIO POWER
GENERATION

Socio-Economic Assessment

Open House

- Except for the portion of the Project that occurs within Lake Abitibi Provincial Park the Project occurs on general crown use land area that permits hydroelectric development and most other resource uses.
- Most of the lands adjacent to the Project have been subjected to other resource activities such as forest harvesting and road building.
- New Post Creek is rarely used as a canoe route but the base of the New Post Creek Falls (via Abitibi River) is visited occasionally by tourists, canoeists and anglers.
- The environmental assessment will consider how the Project affects other users of crown land such as: forest management, mineral exploration/mining, recreational activities and trapping.
- An economic assessment is being completed to assess the effects of increased employment on the region.



ONTARIO POWER
GENERATION

Cultural Heritage Assessment

Open House

- Assessment of the Project's impact on cultural heritage is being carried out according to the *Ontario Heritage Act*.
- Areas studied included all areas proposed for development.
- Cultural heritage field work is being done in conjunction with the Taykwa Tagamou Nation.



Archaeological Team and TTN Members
Investigating the Project Area, 2011

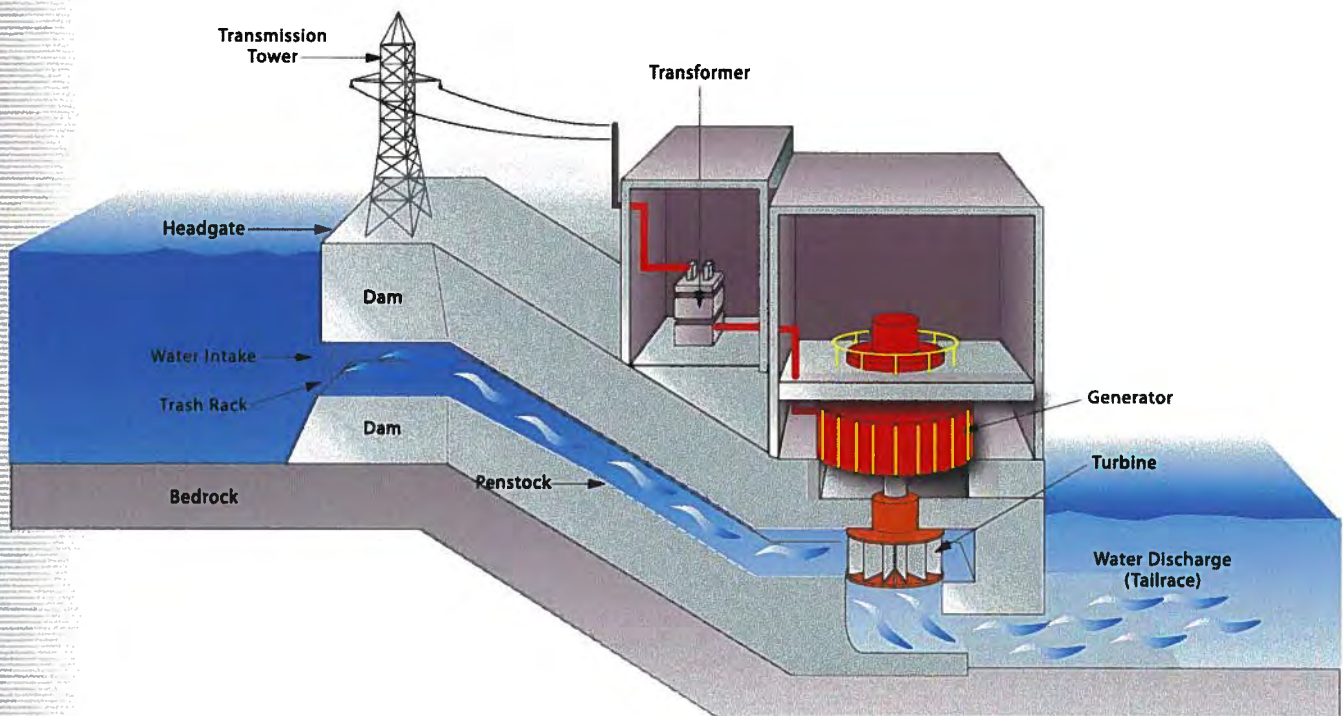


ONTARIO POWER
GENERATION

How Hydroelectric Power Works

Open House

- Hydroelectric power stations convert the kinetic energy of falling water into electrical energy.
- Hydroelectric stations use either the natural drop of a river, such as a waterfall, or a dam built across a river to raise the water level and provide the drop (head) needed to create a driving force.
- Water is collected at the top of the dam in what is called the forebay. From there, the water flows into a pipe called a penstock which carries it down to a turbine water wheel.
- The water pressure increases as it flows down the penstock. The pressure and flow of the falling water drives a turbine which in turn spins a generator.
- This creates electricity that can be sent to the transmission grid.



ONTARIO POWER
GENERATION

We Value Your Opinion

Open House

- Please take the time to ask questions and complete the Comment Sheets.
- Consultation is a key component of the EA process as it provides you with an opportunity to contribute and inform decisions relating to the Project.
- CRP and OPG will be hosting two rounds of formal public Open Houses:
 - ◆ This Open House will introduce the Project and obtain your feedback.
 - ◆ Second Open Houses in 2012 will present results from various studies and field work.
- Meetings and consultation activities will also be held with First Nations, Métis and other Aboriginal communities.
- We would like to know if there are any important environmental or social values, interests or concerns you might have about the Project.
- There will be additional opportunities for you to participate in the EA process. Please indicate your interests on the Comment Sheet.

PUBLIC COMMENT SHEET
FOR THE ENVIRONMENTAL ASSESSMENT
OF THE NEW POST CREEK HYDROELECTRIC PROJECT

Ontario Power Generation Inc. (OPG) and Coral Rapids Power are proposing to develop approximately 25 megawatts of renewable hydroelectric power through the construction of a generating station on New Post Creek near the Abitibi River.

Do you have any comments about the proposed New Post Creek Project?

Are you aware of any particular environmental, social or economic features or values near the New Post Creek Project that we should be aware of?

Do you have any other comments, questions, concerns or issues about the project?

Would you like to receive a call from a team member about your questions, concerns or issues?
Yes No

In the event that OPG holds another event about the project, would you like to be added to the mailing list?
Yes No

Please provide your contact information below (please print):


Name	Postal Code
Street Address	E-mail
City	Phone Number
	Fax

If you have any questions or comments about the project in the future please contact:

Phil Shantz
Manager - Aboriginal, Land, Resource and Northern Projects
SCS/ES Coral Rapids Limited
131 Gordon Drive, Unit 12
Richmond Hill, Ontario, L4B 3M4
philshantz@coralrapids.ca

Project information: www.newpostcreek.ca

Please drop the comments in the box provided or send to Phil Shantz no later than December 24, 2011.

 **ONTARIO POWER GENERATION**



APPENDIX D – PRESENTATION PANELS FROM OPEN HOUSE ROUND #2

WELCOME

- Thank you for taking time to visit this Open House.
- Please fill out a Comment Sheet and leave it with us, or take it home and return it later to the address provided.



- A project representative will be glad to answer your questions.
- Your input and comments are an important contribution to helping us develop an environmentally responsible project.



ONTARIO POWER
GENERATION

Purpose of this Open House

- To present to you Ontario Power Generation Inc.'s (OPG) and Coral Rapids Power LP's (CRP) plans to develop a hydroelectric generating station on New Post Creek.



New Post Creek Today

- To identify environmental effects and mitigation measures and seek your feedback on these findings.



ONTARIO POWER
GENERATION

Who is Ontario Power Generation?

- OPG is an Ontario-based electricity generation company whose principal business is the generation of electricity in Ontario.
- OPG focuses on the efficient production of electricity from its generation assets, while operating in a safe, open and environmentally responsible manner.
- OPG is a commercial company, owned by the Province of Ontario – its sole shareholder.
- OPG has been given a mandate from the Province of Ontario to develop and expand its hydroelectric capacity.
- This Project will provide more clean, reliable and renewable electricity for Ontario.



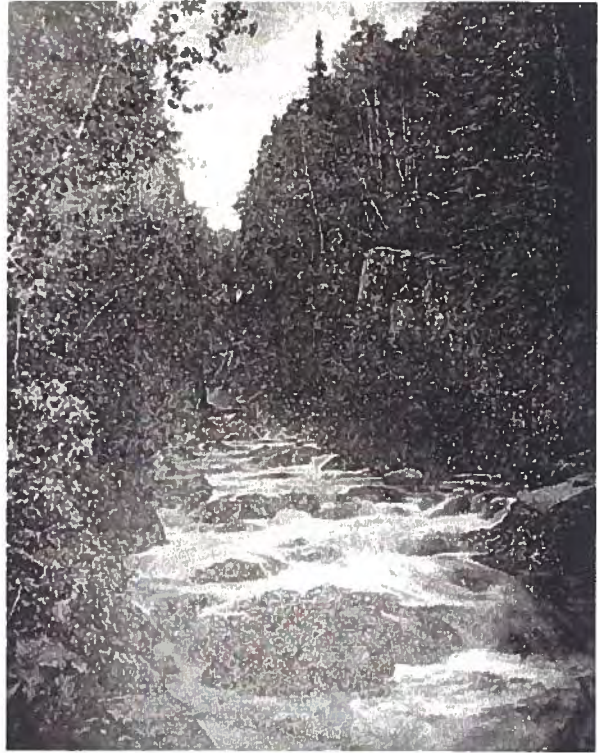
Who is Coral Rapids Power?

- Coral Rapids Power (CRP) is a company formed and wholly owned by the Taykwa Tagamou Nation (TTN).
- CRP was incorporated by the TTN Chief and Council in 2004 as a vehicle to carry out potential commercial activities related to electricity generation.
- CRP's purpose is to enter into the electricity generation business in Ontario.
- In April 2006, a Memorandum of Understanding was signed between Ontario Power Generation Inc. (OPG) and the Taykwa Tagamou Nation (TTN) to jointly explore hydroelectric development opportunities within the Abitibi River drainage basin, north of Highway 11.
- As a result of this initiative, a potential waterpower generation location was identified on New Post Creek.
- A Grievance Settlement was completed in November 2007 which included a Partnership Term Sheet Agreement between OPG and CRP to move forward with a potential development of the New Post Creek Project. Subsequently in December 2008 the Partnership Agreements were signed.



History of New Post Creek

- New Post Creek, or Cheepilloya Sebee as it is known in Cree (English translation: Great Partridge River) played an important role in the lives of the people of the Taykwa Tagamou Nation (TTN).
- As the only source of fresh, clear water fed from muskeg in the area, it was a popular camping spot for TTN families who were travelling to and from the Bad River system for fishing, hunting and trapping.
- TTN members have indicated that the Creek was only navigable by canoe for most of its length during the spring runoff, and sometimes during the fall after significant rain events. A short portage route which tracks close to the Hudson Bay Company (HBC) site was used to bypass New Post Creek Falls and access the Abitibi River.
- According to TTN elders, In the summer the flow of New Post Creek below the falls was often just a trickle. It is likely that the creek would have had a flow of 1 or 2 cubic meters per second (cms).
- In 1963 flows were diverted from the Little Abitibi River into New Post Creek to increase flow and therefore generation at Otter Rapids Generating Station.



Original New Post Creek

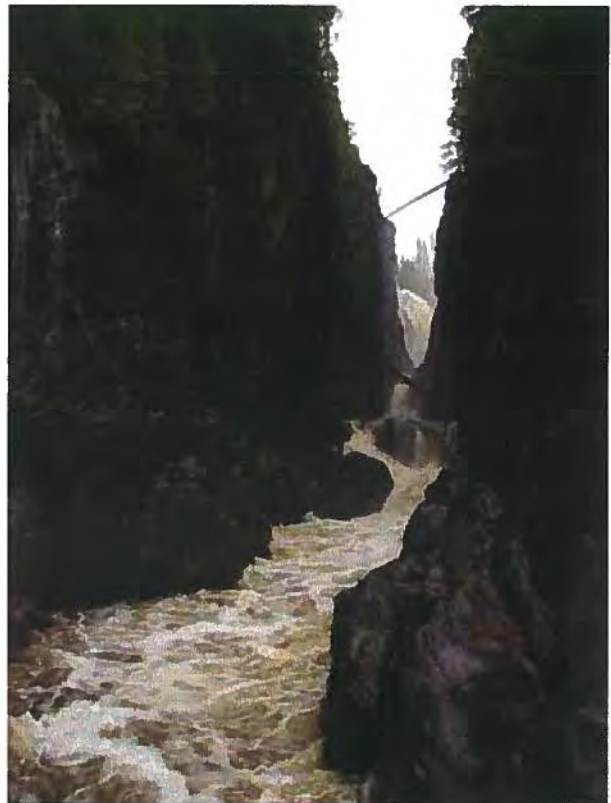


Otter Rapids Generating Station



New Post Creek Today

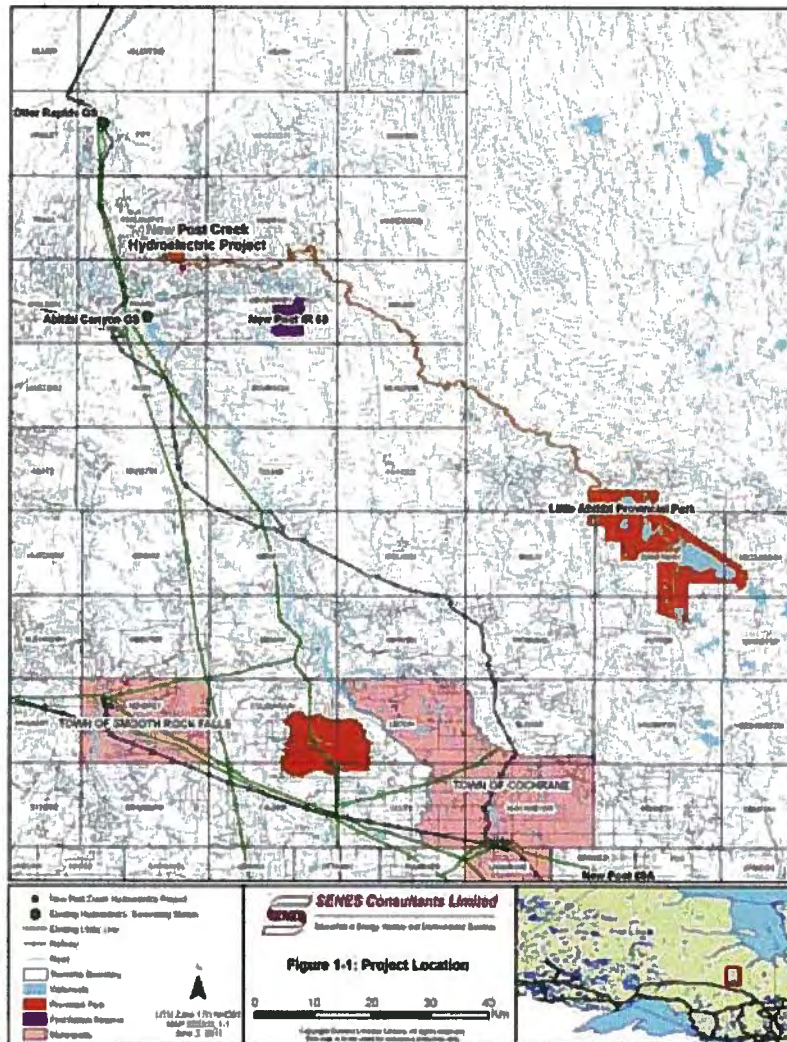
- The original diversion has significantly altered the Creek.
- Today, flows on New Post Creek and the Abitibi River are regulated by the Abitibi River System Water Management Plan.



ONTARIO POWER
GENERATION

Project Location

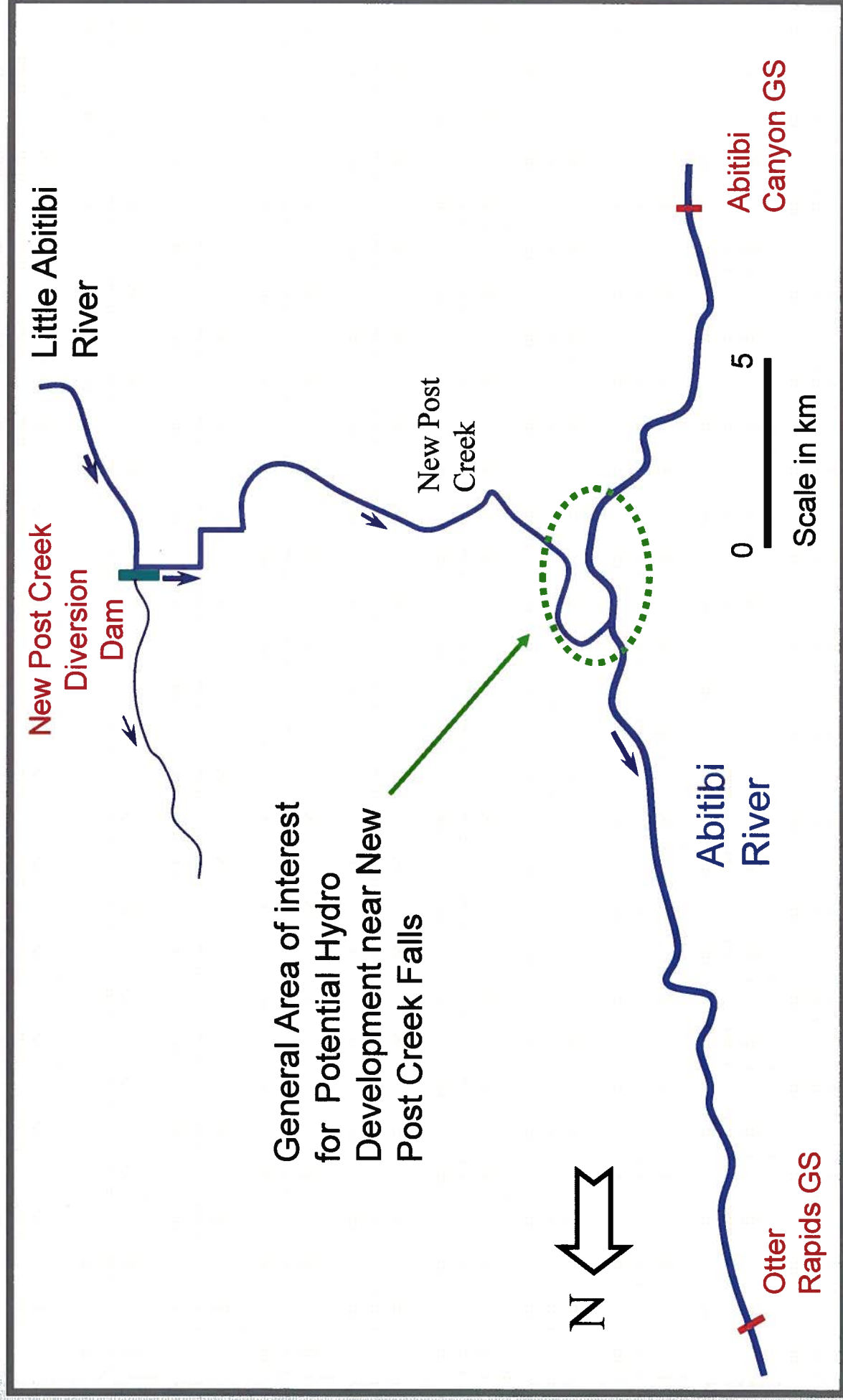
- The proposed New Post Creek Project is located in the District of Cochrane within the Geographic Township of Pinard.
- Approximately 100 kilometres (km) north of the Town of Smooth Rock Falls, 13 km northeast of Abitibi Canyon Generating Station and 20 km south of Otter Rapids Generating Station.
- A small part of the Project is currently within Little Abitibi Provincial Park (LAPP).
- The proposed generating station would be located on Abitibi River shore lands with the intake at New Post Creek approximately 6 km upstream of its outlet to the Abitibi River.



General Location



New Post Creek System



ONTARIO POWER
GENERATION

What are OPG and CRP Proposing?

- A new hydroelectric generating station with a capacity in the order of 25 Megawatts (MW) that would produce enough electricity to meet the needs of 25,000 homes (approximately 125 Gigawatt hours (GWh)).
- The proposed intake and spillway would be located about 4 km upstream of New Post Creek Falls and would divert a portion of New Post Creek flows through turbines that would discharge through a powerhouse located on the east shore of the Abitibi River.
- The project is located about 10 km downstream from the Abitibi Canyon Generating Station.
- The proposed Project will consist of the following primary project components/structures:
 - ◆ Intake and spillway structures located on New Post Creek;
 - ◆ Water conveyance system that includes shallow buried penstocks and possibly a portion of open water canal;
 - ◆ Powerhouse structure with multiple generating units located on the Abitibi River; and,
 - ◆ Switchyard and approximately 7 km transmission line that would cross the Abitibi River.



General Location of the Intake
on New Post Creek



General Location of the Powerhouse
and Tailrace on the Abitibi River



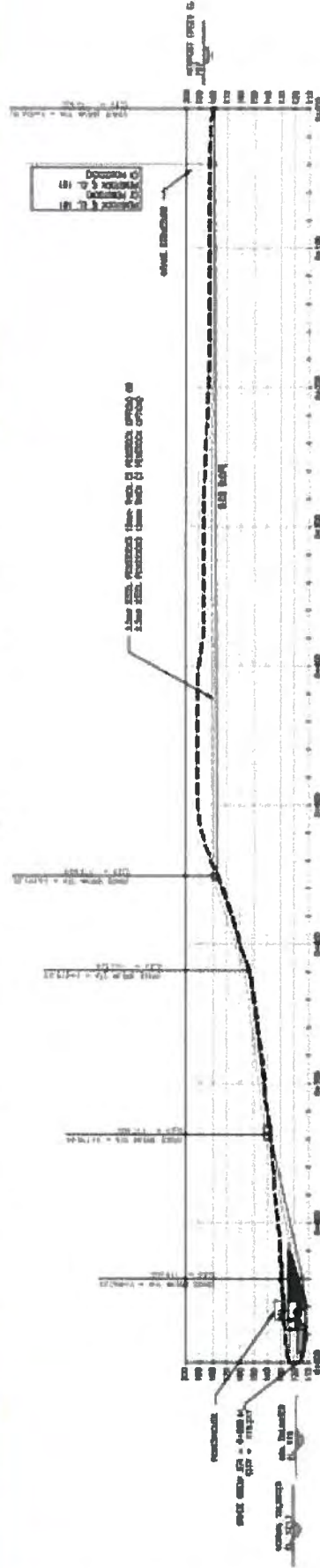
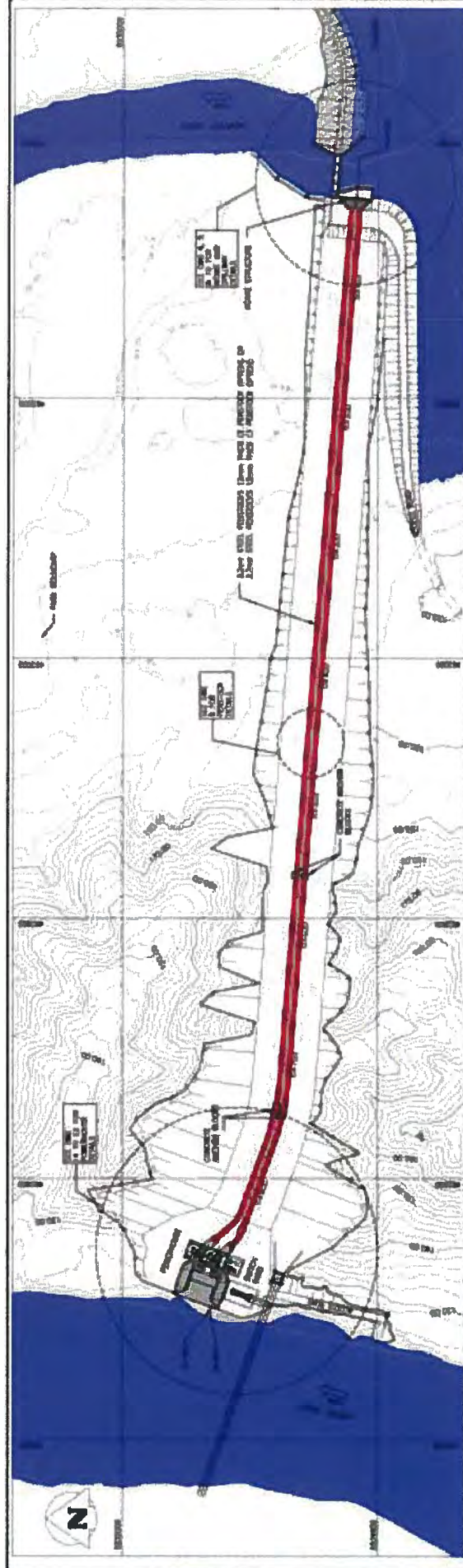
ONTARIO POWER
GENERATION

3D Image of the New Post Creek Site



ONTARIO POWER
GENERATION

Generating Station – General Arrangement



KGS GROUP
CONSULTANTS
1000 SHEPPARD AVENUE EAST
SUITE 100
SCARBOROUGH, ONTARIO M1B 4Y1
TEL: (416) 291-1111
WWW.KGS-ON.COM

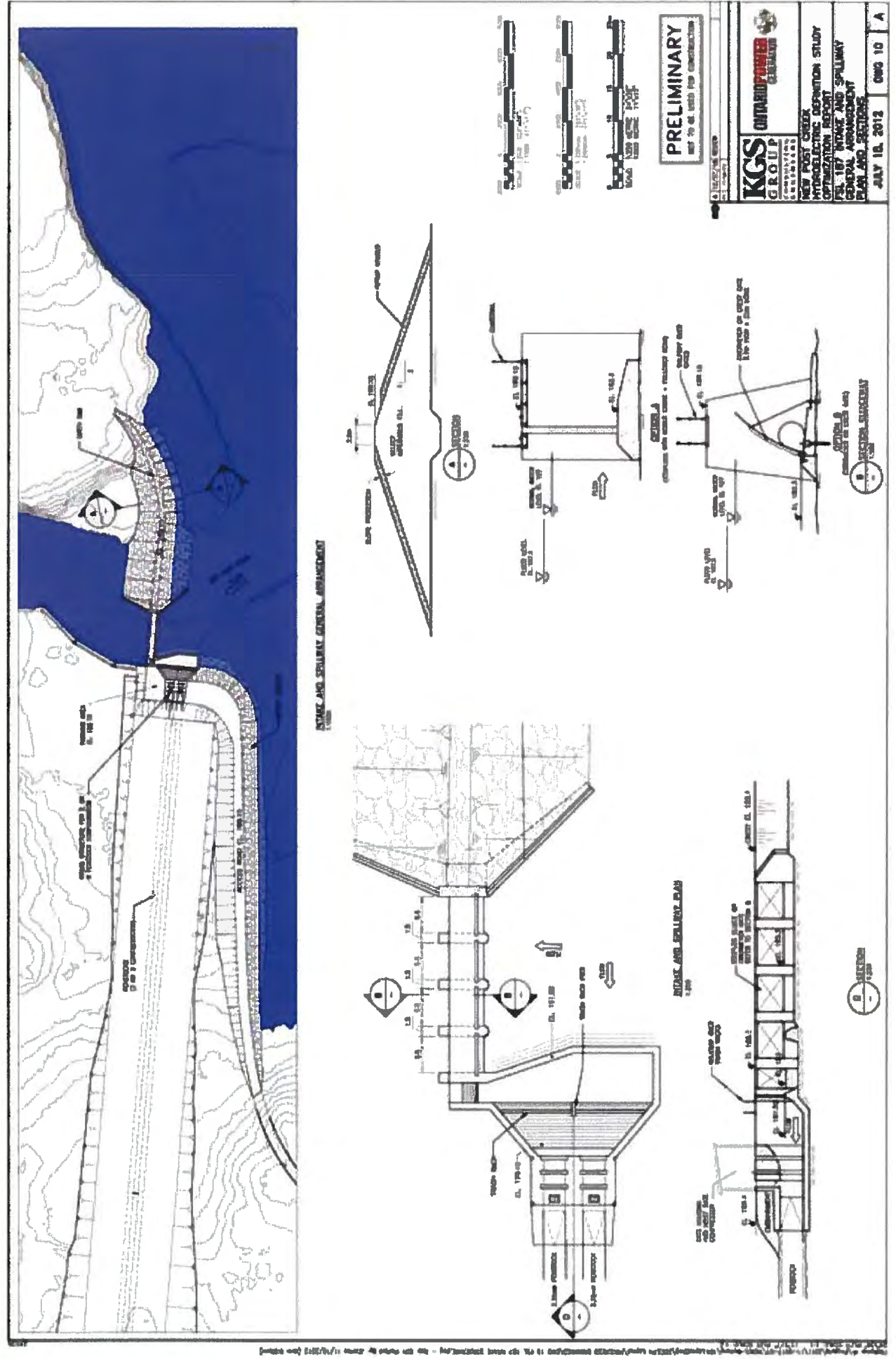
ONTARIO POWER GENERATION
NEW POST CREEK
OPTIMIZATION STUDY
GENERAL ARRANGEMENT
AND PROPOSED PROFILE
2 OF 3 SHEETS, 23-187

JULY 18, 2012 DWO 9 A

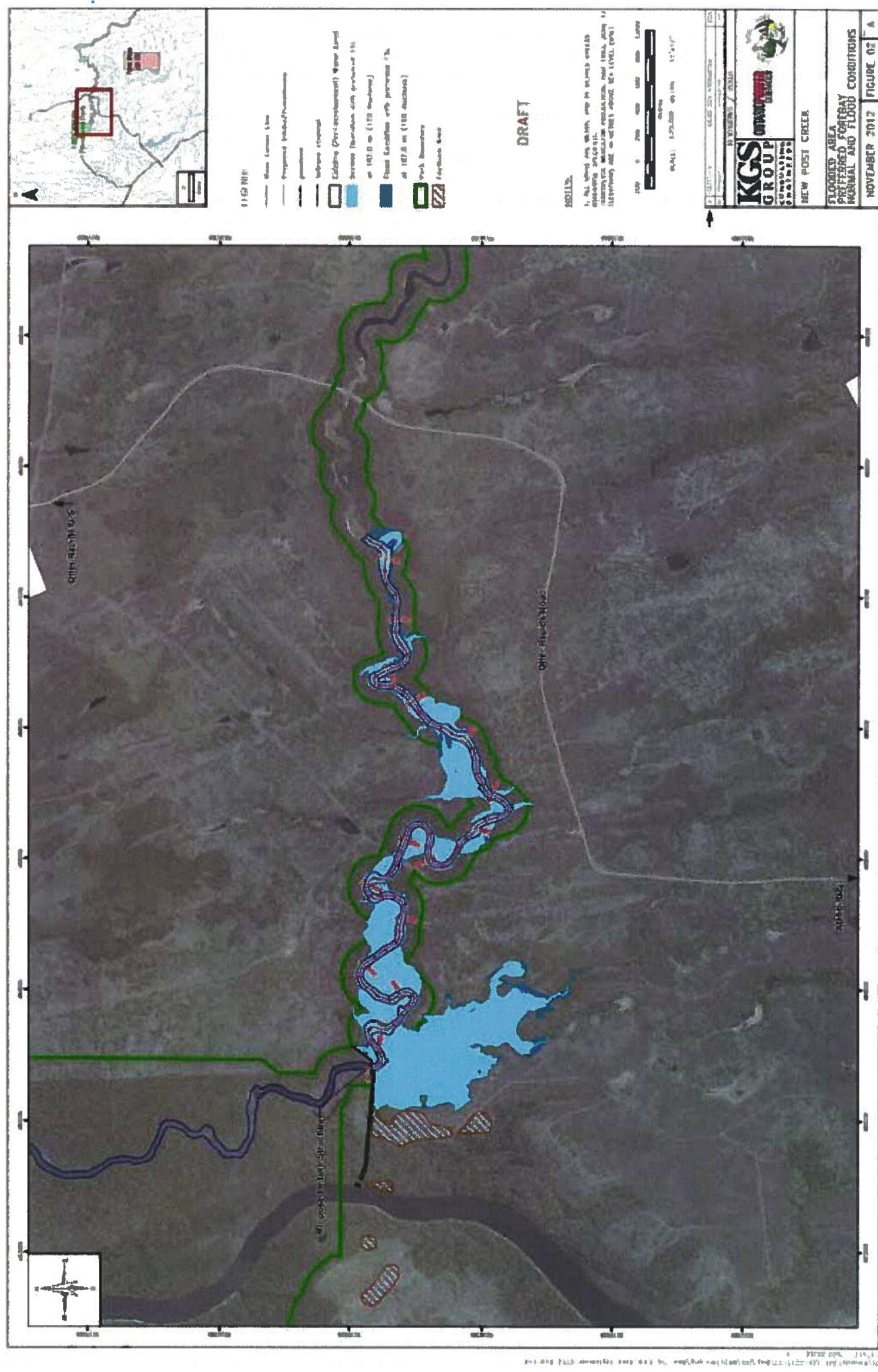
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION



Intake and Spillway – General Arrangement



Proposed Flooding/Forebay

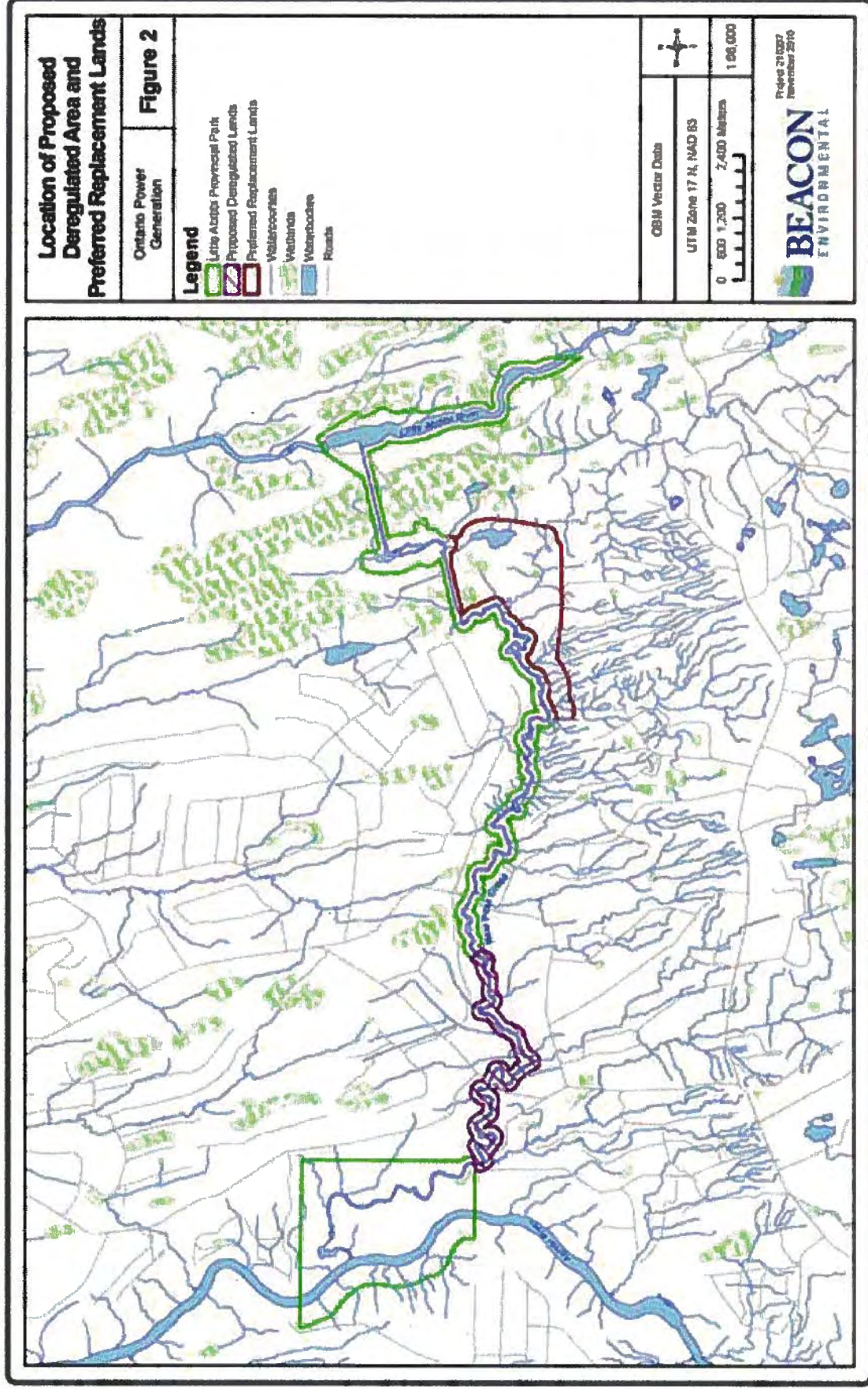


Proposed Project and Little Abitibi Provincial Park

- To carry out the Proposed Undertaking the deregulation of a small portion of the Little Abitibi Provincial Park is needed to align with requirements of the Provincial Parks and Conservation Reserves Act, 2006.
- Replacement lands adjacent to the Park boundary have been identified resulting in a larger Park and enhanced ecological integrity.
- TTN, CRP, MNR and OPG were involved in the process to determine these replacement lands.
- The Class EA for Waterpower Projects process will be coordinated with the Ontario Ministry of Natural Resources Crown land use amendment and Class EA process to amend the park boundary for the Proposed Undertaking.



Lands to be Replaced for Little Abitibi Provincial Park



ONTARIO POWER
GENERATION

Other Facilities

This Project will require a number of other facilities, such as the following.

- Should a construction camp be required, it would be in place for 2 to 3 years in the vicinity of Abitibi Canyon Generating Station.
- At site, work trailers, equipment and material laydown areas and stored materials would all be required.
- Upgrading of access roads to the proposed generating station site.
- A concrete batch plant for construction.
- 7 km transmission line to connect the generating station to the grid.
- Possibly an upgrade to the Parliament Road on the northeast side of the River to allow access.

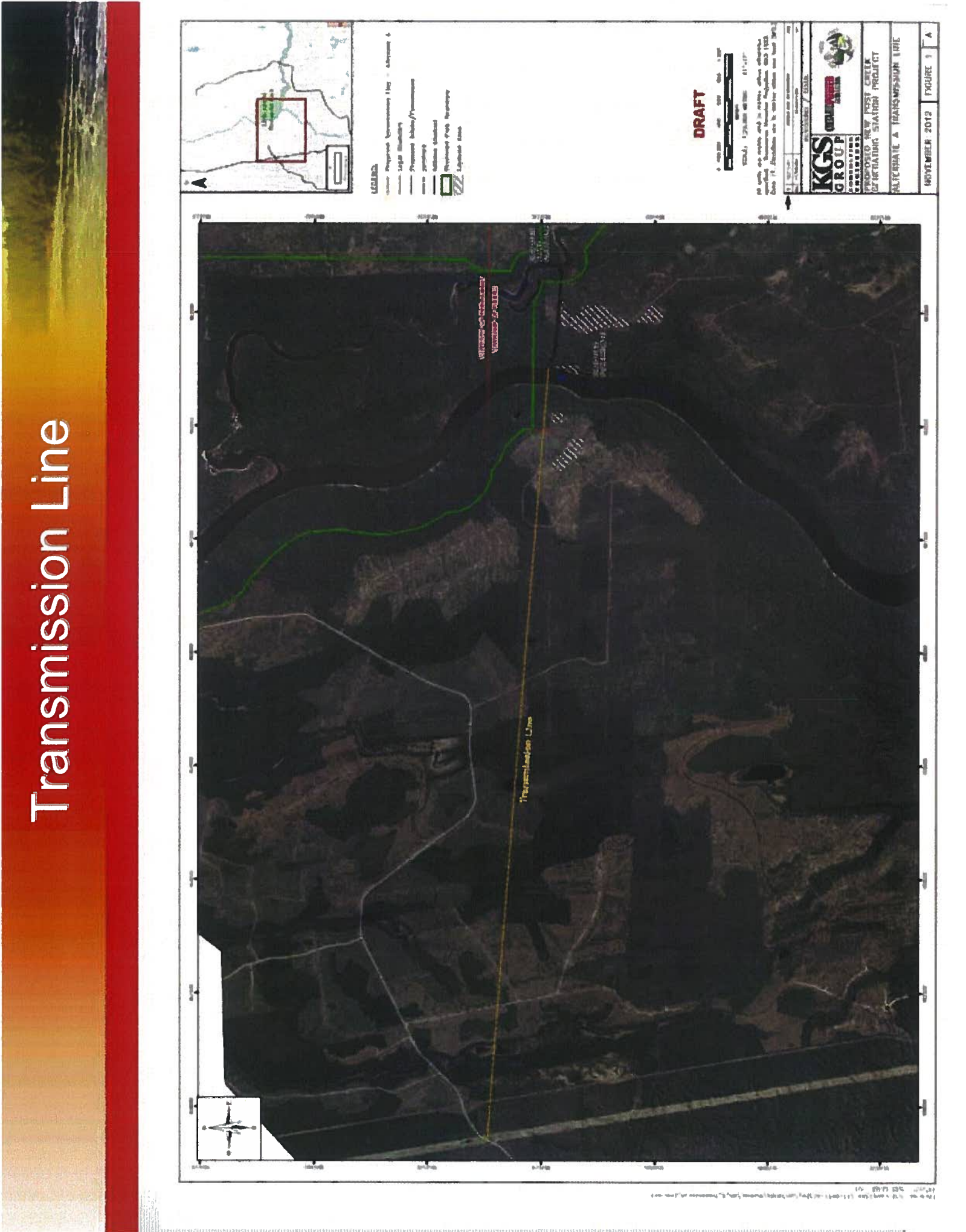


Existing access road to the Site



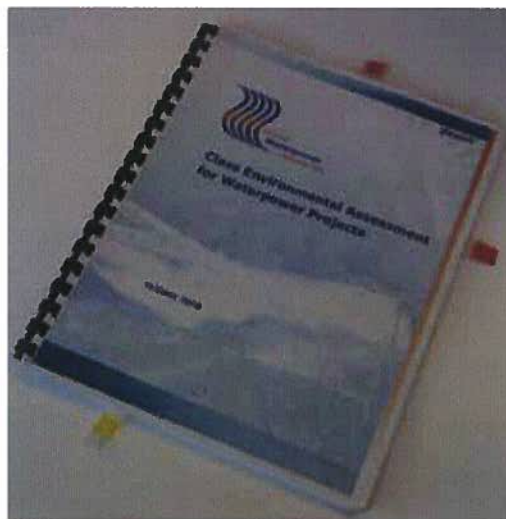
ONTARIO POWER
GENERATION

Transmission Line



Environmental Assessment Process

- Under the provincial *Environmental Assessment Act*, the Proposed Undertaking is subject to the Class Environmental Assessment (Class EA) for Waterpower Projects as a new project on a managed waterway.
- A federal screening environmental assessment is not required.
- The Class EA planning process requires CRP and OPG to evaluate the positive and negative environmental effects of the Proposed Undertaking and prepare an Environmental Report.
- The Class EA will examine the following components:
 - ◆ Aquatic Environment (impact on fish habitat/ movement and impacts on other aquatic life)
 - ◆ Terrestrial Environment (habitat and flora and fauna)
 - ◆ Socio-Economic Environment (local economy, local social and economic use)
 - ◆ First Nations, Métis and Aboriginal communities (e.g. rights, values, uses and interests) and
 - ◆ Archaeological Resources.



Copies of the Class EA are available from www.owa.ca



ONTARIO POWER
GENERATION

Environmental Assessment Studies

- Preliminary field work associated with assessing the environmental effects was initiated in 2009.
- More comprehensive field work was carried out in 2010, 2011 and 2012.
- The effects of the Project during construction and operation are now being assessed.
- Measures to avoid, prevent, eliminate, reduce, mitigate and compensate for negative effects will be identified.
- Measures to enhance positive effects will also be identified.



Field research underway in the study area



Terrestrial Environment

- Terrestrial environment studies are being carried out on all areas impacted by the Project (e.g., generating station, transmission line).
- The studies include assessing the Project's potential impact on:
 - ◆ caribou
 - ◆ moose
 - ◆ forest birds
 - ◆ raptors
 - ◆ waterfowl
 - ◆ aquatic feeding areas
 - ◆ vegetation
 - ◆ Species at Risk



Terrestrial Environment - Effects

- Approximately 270 hectares of land will need to be cleared for the proposed Project.
 - ◆ Approximately, 255 hectares of land will be required for the permanent facilities for the Project including the flooded area, transmission line and the GS.
 - ◆ Approximately, 15 hectares of land will need to be cleared temporarily to allow for construction. This will be for areas to stockpile materials and equipment, provide access for construction, parking, provide space for office trailers, temporary washrooms, etc.
- None of the flora species identified during the field surveys are designated as species at risk.
- The proposed transmission line corridor is situated mainly in areas that were previously logged and are now regenerating naturally and artificially. These areas are dominated by black spruce and trembling aspen.
- The vegetation communities along New Post Creek are generally tolerant to periodic flooding. Dominant vegetation near the intake and in the proposed flooded area consists primarily of speckled alder and willow swamp thickets and intolerant hardwood forests and swamps.
- Near the intake of the GS the proposed construction/laydown area consists of young to mid-aged secondary hardwood forest.
- In the area of the powerhouse and closer to the Abitibi River, the forests are more mature and dominated by black spruce, jack pine and balsam fir.
- Impact on woodland caribou is considered to be minimal because the area has already been extensively harvested.
- During construction it would be expected that sensitive local wildlife will relocate due to construction activities and noise but will return to the area following construction.



Terrestrial Environment - Mitigation

- Construction contractor for the proposed Project will be required to prepare and implement an environmental management plan for the construction project.
- Contractor is expected to maintain equipment in good working order and have on site equipment and materials (e.g., fire extinguishers, spill kits) to prevent forest fires and accidental releases of deleterious substances to the environment.
- Site activities are to be organized and implemented in a fashion to prevent erosion and not allow sediment to enter local watercourses.
- Clearing of trees and vegetation will require a forest resource licence from the MNR that will provide guidance on harvest and utilization.
- OPG/CRP will be required to reimburse the Province for any Crown dues and charges.
- Clearing of trees and vegetation is to occur outside of the migratory bird nesting season.
- Any potentially flooded areas will be cleared of trees, woody material and vegetation. Stumps will be left in place for fisheries enhancement and to promote soil stability.
- All wastes on the site are to be managed so as to limit attracting nuisance wildlife and to ensure wastes are directed to the appropriate facility (e.g., landfill site, recycling facilities).
- In order to reduce impact on local fisheries and wildlife resources, workers at the construction site will not be allowed to fish, hunt or use ATVs or snowmobiles in their spare time.
- At the end of construction, the contractor is to ensure that the site is stabilized and is restored with natural vegetation.
- Transmission line right-of-way will maintain a vegetation management program to ensure that trees pose no hazards.



ONTARIO POWER
GENERATION

Aquatic— Effects and Mitigation

- Construction contractor for the Project will be required to prepare and implement an environmental management plan for the construction project.
- The construction of the project will be managed to prevent releases of substances and sediment into New Post Creek or the Abitibi River.
- Any potentially flooded areas will be cleared of trees, woody material and vegetation. Stumps will be left in place for fisheries enhancement and to promote soil stability.
- The proposed new GS tailrace will enhance local habitat in the Abitibi River by adding a new substrate type that can be utilized by fish.
- The project will result in a net addition of aquatic habitat area.
- Any in-water construction activities will need to adhere to government approved timing windows.
- A proposed operating regime for the GS has been agreed to and is discussed on the “Operating Regime” panel.



Proposed Operating Regime

- OPG, CRP, MNR, Ontario Parks and DFO have been discussing a proposed operating regime for the facility for over a year.
- All parties have been working towards an operating regime that:
 - ◆ Continues to provide important ecological functions.
 - ◆ Ensures that the project is economically viable.
 - ◆ Respects TTN's historic and modern day interests.
 - ◆ Ensures and enhances public safety.
 - ◆ Ensures continual flow down New Post Creek and over the Falls to maintain aesthetic value.
- As a pre-condition, it was agreed that the proposed Project will not change the total volume of water flowing into the Abitibi River or the operating considerations for OPG's Abitibi Canyon and Otter Rapids generation facilities.
- The following minimum flows are proposed for New Post Falls.
 - ◆ Spring time flow for spawning of 15 cubic meters per second (cms).
 - ◆ Transitional Flow from the end of spawning to approximately the Canada Day Weekend (i.e. July 1).
 - ◆ Summer flow (i.e. Canada Day weekend to September 1) of 7.5 cms.
 - ◆ 5 cms for September 1st to 30th.
 - ◆ 2 cms for the period of October 1st to the start of walleye spawning.
- Proposed operating regime is subject to further discussions with key stakeholders on ecological, economic and social concerns and adaptive management will be a key principle moving forward.



Socio-Economic Assessment

- Except for the portion of the Project that occurs within Little Abitibi Provincial Park the Project occurs on general crown use land area that permits hydroelectric development and most other resource uses.
- Because of the small footprint of the project, it will have negligible effects on other resource activities such as forest harvesting or mineral exploration.
- New Post Creek is rarely used as a canoe route but OPG/CRP are proposing to construct a portage around the GS that will allow for safer use than the current situation.
- Flows over the Falls are proposed that balance economic, environmental and social objectives.
- Project will produce about 25MW of power enough energy to generate electricity for about 25,000 homes.
- Project is expected to result in approximately 150 - 200 direct person years of construction employment.
- Project is expected to generate greater than \$150M in gross revenue charges to the Province over the course of its lifetime.



ONTARIO POWER
GENERATION

Cultural Heritage Assessment

- Assessment of the Project's impact on cultural heritage has been carried out according to the *Ontario Heritage Act*.
- Areas studied included all areas proposed for development.
- Cultural heritage field work was done in conjunction with the Taykwa Tagamou Nation.
- Fieldwork has helped in identifying some of TTN's historic trails and portages in the area.
- Proposed project will not impact on any known archaeological resources, TTN traditional values or the Hudson's Bay Trading Post.



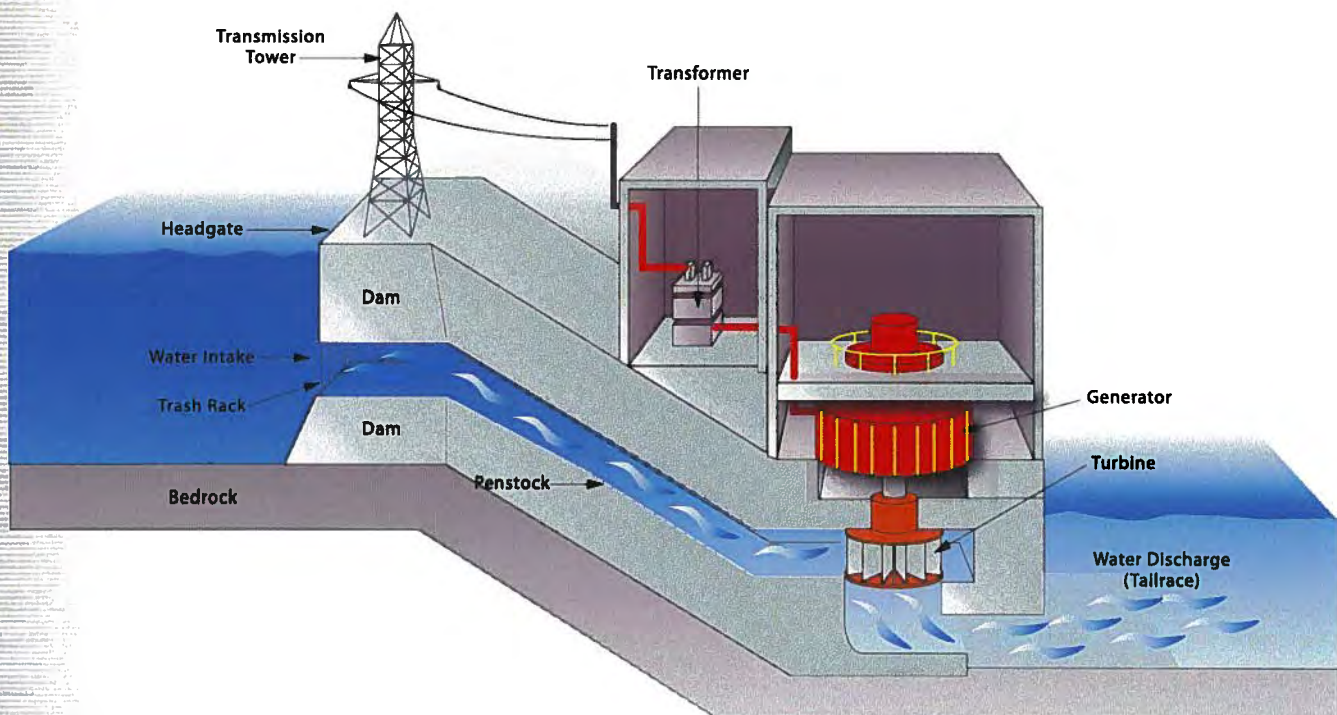
Archaeological Team and TTN Members
Investigating the Project Area, 2011



ONTARIO POWER
GENERATION

How Hydroelectric Power Works

- Hydroelectric power stations convert the kinetic energy of falling water into electrical energy.
- Hydroelectric stations use either the natural drop of a river, such as a waterfall, or a dam built across a river to raise the water level and provide the drop (head) needed to create a driving force.
- Water is collected at the top of the dam in what is called the forebay. From there, the water flows into a pipe called a penstock which carries it down to a turbine water wheel.
- The water pressure increases as it flows down the penstock. The pressure and flow of the falling water drives a turbine which in turn spins a generator.
- This creates electricity that can be sent to the transmission grid.



ONTARIO POWER
GENERATION

Next Steps

- The feedback and information received from Community Meetings and Public Open Houses will be used for the Environmental Report.
- The Environmental Report and the Technical Support Documents will be based on all fieldwork and research conducted over the last several years.
- Completed documents will be provided to regulators including the Ministry of Environment, Ministry of Natural Resources, Ontario Parks, Department of Fisheries and Oceans and Transport Canada for their review and comment.
- Documents will be revised based on input received from the regulators; and the revised reports will be provided for Aboriginal and public review.



- If all goes as expected construction would begin in 2014.
- Prior to and throughout construction a wide variety of other permits and approvals would be required for the project from the Ministry of Natural Resources, Ministry of the Environment, Department of Fisheries and Oceans, etc.



ONTARIO POWER
GENERATION

We Value Your Opinion

- Please take the time to ask questions and complete the Comment Sheets.
- Consultation is a key component of the EA process as it provides you with an opportunity to contribute and inform decisions relating to the Project.
- Consultation will continue with Aboriginal groups.
- We would like to know if there are any important environmental or social values, interests or concerns you might have about the Project.
- Please indicate your interests on the Comment Sheet.
- There will be additional opportunities for you to participate in the EA process. Please indicate your interests on the Comment Sheet.

COMMENT SHEET
FOR THE ENVIRONMENTAL ASSESSMENT
OF THE NEW POST CREEK HYDROELECTRIC PROJECT

Ontario Power Generation Inc. (OPG) and Coral Rapids Power LP (CRP) are proposing to develop approximately 25 megawatts of renewable hydroelectric power through the construction of a generating station on New Post Creek near the Abitibi River.

Do you have any comments about the proposed New Post Creek Project?

Are you aware of any particular environmental, social or economic features or values near the New Post Creek Project that we should be aware of?

Do you have any other comments, questions, concerns or issues about the project?

Would you like to receive a call from a team member about your questions, concerns or issues?

Yes No


Please provide your contact information below (please print):

Name: _____ Postal Code: _____
Street Address: _____ Email: _____
City: _____ Phone Number: _____
Fax: _____

If you have any questions or comments about the project in the future please contact:

Project Manager
Manager - Aboriginal Land, Resources and Heritage Projects
ENRCS Consultants Limited
671 Denison (Opp. Unit 12)
Richmond Hill, Ontario L4B 3N4
888-822-8888
Project Information: www.newpostcreek.com

Please drop the comments in the box provided or send to PO Box 100000, Toronto, Ontario M5X 1C6.

 **ONTARIO POWER GENERATION**



APPENDIX E – LETTERS OF SUPPORT

- **Town of Cochrane**
- **Town of Kapuskasing**
- **Town of Smooth Rock Falls**
- **Timmins Economic Development Corporation**



THE CORPORATION OF THE TOWN OF COCHRANE
LA CORPORATION DE LA VILLE DE COCHRANE

171 Fourth Avenue / 171 4^{ième} ave
PO. Box 490 / C.P 490
Cochrane, Ontario POL 1C0
Tel: (705) 272-4361 Fax: (705) 272-6068
Email: townhall@town.cochrane.on.ca
Website: www.cochraneontario.com

OFFICE OF THE MAYOR – BUREAU DU MAIRE

February 5, 2013

President,
Coral Rapids Power
Timmins, ON

Attention: Wayne Ross

Re: Support for New Post Falls Hydro Electric Project

Wacheye Mr. Ross;

The Town of Cochrane wishes to add our support for the New Post Creek Project. We understand the project is being done with the highest regard for the environment and at the highest industrial standards. It is a very beneficial project for the Taykwa Tagamou Nation, Cochrane and the surrounding region.

The construction phase will benefit the area from the employment, contracts and joint ventures that will be available. It will facilitate the building of good relationships between the various entities involved in the construction stage.

The Town of Cochrane is looking forward to working alongside TTN in bringing this important project to realization.

With the greatest of sincerity,

Meegwetch!

Peter Politis,
Mayor / Maire



Corporation
of the Town of
de la ville de
Kapuskasing

Office of the Mayor — Bureau du maire

April 19, 2013

Mr. Wayne Ross, President,
Coral Rapids Power,
Timmins, Ontario

Dear Mr. Ross:

Re: Support for New Post Falls Hydro Electric Project

Wacheyay Mr. Ross. The Town of Kapuskasing is pleased to extend its support for the New Post Falls Hydro Electric Project.

The partnership with Taykwa Tagamou Nation and Ontario Power Generation will be beneficial in terms of generating electricity, community investment and creation of 100 construction positions. Not only will this project result in significant economic impacts but equally important is that the project undertaking has highest regard in terms of the environment and also meets superior industrial standards.

Much success with this project. Meegwetch.

Yours truly,

A handwritten signature in blue ink that reads "Alan Spacek".

ALAN SPACEK
Mayor



Corporation of the Town of Corporation de la Ville de

Smooth Rock Falls

P.O. Box 249 – C.P.
Smooth Rock Falls, ON P0L 2B0
TEL: 705-338-2717
FAX: 705-338-2584

February 11, 2013, 2013

SENT VIA EMAIL

Coral Rapids Power
36 Birch Street South
Timmins, Ontario
P4N 2A5

RE: Letter of Support – New Post Creek

Mr. Wayne Ross, President Coral Rapids Power

The Town of Smooth Rock Falls wishes to add our support for the New Post Creek Project. We believe the project approach represents minimal impacts. Mitigation is being implemented to alleviate those that potentially are.

It is a very beneficial project for the Taykwa Tagamou Nation and the surrounding region. During the construction phase the area will benefit from the employment, contracts and joint ventures that will be available. It will build good relationships between the various entities involved in the construction stage.

The Town of Smooth Rock Falls is looking forward to working alongside TTN in bringing this important project to realization

THE CORPORATION OF THE TOWN OF SMOOTH ROCK FALLS

Sincerely,

Michel Arseneault
Mayor, the Corporation of the Town of Smooth Rock Falls

cc: Smooth Rock Falls Town Council
Luc Denault, CAO, Town of Smooth Rock Falls



April 22, 2013

A bold vision.
A bright future.

Une vision
novatrice.
Un avenir
prometteur.

**President
Coral Rapids Power
Timmins, ON**

Attention: Mr. Wayne Ross

Re: New Post Falls Hydro Electric Project

Dear Mr. Ross:

The Timmins Economic Development Corporation has been apprised of plans to develop a 25MW hydroelectric station at New Post Creek on the traditional lands of Taykwa Tagamou First Nation, and would like to express its support for the project.

As an economic development corporation we are quite familiar with the benefits that accrue to society generally and to the environment specifically from this type of project. Most importantly, the project presents an opportunity to build the capacity of the First Nation members and to help build sustainable joint venture companies.

The Timmins Economic Development Corporation is prepared to lend its assistance, where and as requested.

Yours truly,


Fred Gibbons

Fred Gibbons