



Public Services and  
Procurement Canada

# Timiskaming Dam-Bridge of Quebec Replacement Project (Quebec)

## Environmental Impact Statement PART D – Baseline Conditions and Impact Assessment Chapter 9 General Context





# PUBLIC SERVICES AND PROCUREMENT CANADA

## Environmental Impact Statement Timiskaming Dam-Bridge of Quebec Replacement Project (Quebec)

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## REVISIONS

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Revision n°	Description	Date	By
00	Preliminary Report - Version for comments	March 2022	JR
01	Final Draft – Version for comments	June 2022	JR
02	EIS – Version for the Impact Assessment Agency Review	September 2022	JR
03	EIS – Second Version for the Impact Assessment Agency Review	February 2023	JR

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## **PART D – BASELINE CONDITIONS AND IMPACT ASSESSMENT**

### **9 GENERAL CONTEXT**

#### **9.1 DESCRIPTION OF THE IMMEDIATE ENVIRONMENT**

The Quebec dam of the Timiskaming Dam Complex is located on the Ottawa River, between the east bank of Long Sault Island and the Quebec bank of the river near the city of Témiskaming. It consists of ten bays and is 94 meters long. It was built in 1909 and was rebuilt for the first time in 1934. With the Ontario dam, located between the Ontario bank of the Ottawa River and Long Sault Island, it forms the Timiskaming Dam Complex. The Ontario dam was replaced between 2014 and 2017. The complex occupies 19.33 ha and is the property of PSPC.

Hydropower is not generated in this section of the river. The purpose of the dams is to regulate river water levels during high water periods to avoid flooding, facilitate navigation and retain water for the hydropower facilities downstream.

All construction will take place in PSPC rights of ways, except a small parcel owned by Rayonier Advanced Materials<sup>1</sup> (further referred as Rayonier). A plan listing titles of ownership and showing property limits in the study area is included in Appendix 9.1. A parking area for heavy machinery will be located on property owned by the City of Témiscaming (parcel #3 657 604).

The east side of the right of way is located on the left bank of the river, in Quebec. Rayonier specializing in forest products, is located directly in front of the existing structure. The entrance of the city of Témiscaming (Quebec), population 2,431 (2016) (Statistics Canada, 2016) is located on the same bank, approximately 500 m to the north. Wolf Lake First Nation administration offices are located on Riordon Avenue, in Témiscaming.

The west side of the right of way is on Long Sault Island, located in the middle of the Ottawa River, in Ontario. Offices for the operation of the dams, one residential building, a shop, a garage and a storage hangar are located on this island. There is also a fenced area, property of Environment Canada, where weather monitoring instruments have been installed.

The Algonquin Canoe Company is located on Long Sault Island directly adjacent to the Project site, and provides opportunity for tourists to take part in boating, canoeing, portaging and camping excursions, and also offers cabins for visitor lodging (ACC, 2021). A public boat ramp is located at the tip of the island, permitting access to the downstream area of the Ottawa River.

On the right bank of the river is the village of Thorne (Ontario), population 500.

Route 63 (Ontario) and Route 101 (Quebec) pass on the existing dam and link the two provinces. The dam also supports an underground conduit that allows the passage of Bell Canada fiber optics cables and a gas line owned by Energir.

Appendix 9.2 includes photographs of the site.

#### **9.2 STUDY AREAS**

The study areas make it possible to identify the aquatic and terrestrial components that are located within the perimeter of the Project or are likely to be affected by the Project's implementation. Two study areas were defined for this Project: the aquatic study area (ASA) and the terrestrial study area (TSA) (Map 9.1), descriptions for which are provided in the following sections. To provide a general understanding,

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<sup>1</sup> Formerly Tembec.

descriptions of some specific components located outside of these areas, including the watershed, the administrative region of Abitibi-Témiscamingue and the Regional County Municipality (RCM), have also been included.

**Table 9.1 Information on the Study Areas**

Information	Study Area	
	Aquatic Environment (ASA)	Terrestrial Environment (TSA)
<b>Administrative region</b>	Abitibi-Témiscamingue	
<b>Regional County Municipality (RCM)</b>	Témiscamingue	
<b>City</b>	Témiscaming	
<b>Size</b>	50.6 ha	11.5 ha
<b>Central geographical coordinates (NAD83 projection, MTM Zone 10)</b>	Latitude: 5,174,017 m North Longitude: 335,538 m West	<u>Long Sault Island</u> Latitude: 5,174,525 m North Longitude: 335,280 m West <u>Left bank, north of Gordon Creek</u> Latitude: 5,174,768 m North Longitude: 335,429 m West <u>Left bank, south of Gordon Creek</u> Latitude: 5,174,538 m North Longitude: 335,558 m West

### 9.2.1 Aquatic Study Area

With an area of 50.6 ha, the Aquatic Study Area (ASA) covers the Quebec and Ontario portions of the Ottawa River.

The area begins at the Timiskaming Quebec dam, downstream of the dam, and extends 1.5 km farther downstream. It runs along the east bank of Long Sault Island, the Ontario bank and the Quebec bank of the river, encompassing the Rayonier plant, and includes the mouth of Gordon Creek (Map 9.1). The 1.5 km downstream distance is based on the experience of professionals working on the Project in regard to the area that may be affected by changes to flows during construction and by the downstream transport of suspended solids (SS). This practical experience was confirmed by simulations, which are presented in Section 11.2.8.

Following meetings with the AOO and AOPFN, it was decided to expand the ASA by including an area of approximately 0.5 km upstream of the Quebec dam. Although there is no anticipated impact on water quality or aquatic habitats upstream of the dam, other than in the immediate vicinity of the work to dismantle the existing dam, the information collected in this area will improve knowledge of the biological environment, which includes fish habitats.



### 9.2.2 Terrestrial Study Area

The Terrestrial Study Area (TSA) covers a total area of 11.5 ha and encompasses the terrestrial sites that will be directly affected by the work. It includes Long Sault Island (4.9 ha) and the left bank of the Ottawa River (6.6 ha). On the left bank, the study area begins 100 m north of the dam and follows the bank of the Ottawa River (over a 100 m width) until the southern end of Long Sault Island (Map 9.1). For purposes of regional contextualization of the wildlife components, a Regional Study Area of approximately 2 km around the site is used.



**LÉGENDE / LEGEND**

Zone d'étude / Study Area :

-  Milieu terrestre / Terrestrial Environment
-  Milieu aquatique / Aquatic Environment

--- Limite provinciale / Provincial border

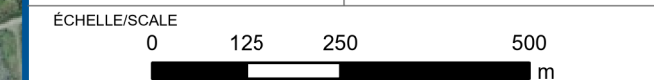
Source de l'imagerie / Imagery Source:Maxar



Projet de remplacement du barrage Témiscamingue du côté du Québec / Timiskaming Quebec Dam Replacement Project

**Carte / Map 9.1: Zone d'étude du milieu aquatique et du milieu terrestre / Aquatic and Terrestrial Environment Study**

CARTOGRAPHIE/CARTOGRAPHY	DATE
E. NAULT	2021-11-03
NO. PROJET/PROJECT NO.	FICHER/FILE
32760TT	32760TT_Zones_etudes



## 9.2.3 Socio-economic Study Areas

### 9.2.3.1 Local Study Area

The Timiskaming Dam Complex crosses the Ottawa River linking the Abitibi-Temiscamingue region in Quebec, and the Nipissing Unorganized District of Ontario. For the purpose of assessing health and socio-economic effects of the Project, a Local Study Area (LSA) which includes communities that are more likely to experience impacts is defined in this section.

Communities most directly impacted by the Project are those located within 20 km of the Project, and therefore rely on the Timiskaming Dam Complex to access work sites (especially the pulp and paper mill operated by Rayonier in Témiscaming), educational institutions, health care, and other goods and services in the immediate vicinity of the Project site. Due to their proximity to the Ottawa River, some of these communities are more likely to value and benefit from the resources in the Ottawa River valley and are more vulnerable to changes in river water levels and flows. The LSA includes Indigenous and non-Indigenous communities in Ontario and Quebec.

Indigenous communities were consulted to determine the most appropriate study area in which to assess impacts on them, taking into account the appropriate scale and spatial extent of potential environmental effects, community knowledge and Indigenous traditional knowledge, current or traditional land and resource use by Indigenous Peoples, ecological, technical, social and cultural considerations. Where there are differences in the geographic areas assessed for Indigenous Peoples' valued components, these are further described in the impact assessment section specific to their community (see Chapter 13). In many cases this included areas in the Ottawa River valley upstream and downstream of the Project site due to the historic uses and cultural importance of the river to Indigenous communities in this region.

For the purposes of the socio-economic and Indigenous Peoples' assessment, the LSA also includes North Bay and Mattawa, both in Ontario. These larger urban centres are included because they are the closest regional service hubs to the Project site providing employment, a wide range of goods and services and cultural opportunities within the region (Table 9.2). The communities in the closest proximity to the Project are Thorne (1 km south of the Project, Ontario), and Témiscaming (0.5 km north-east of the Project, Quebec). Map 4.4 (in Chapter 4) shows the communities included in the local study area.

**Table 9.2 Primary Study Communities, Proximity to the Project and Population**

Province	Community	Proximity to the Project	Population*
QC	Témiscaming (population includes adjacent, smaller communities listed below)	0.5km north-east	2,431
QC	Grimmer	4.5 km south	
QC	Letang	6km east	
QC	Ketchen	6.5km south-east	
QC	Beauchêne	14 km south-east	
QC	Kipawa	15km north-east	516
ON	Thorne	1 km south	204
ON	Nipissing Unorganized North (includes Wyse and Eldee)	2.4 km north (Wyse); 7.7 km south (Eldee)	1,784
ON	Mattawa	50 km south east	1,993
ON	North Bay	50 km south west (North Bay)	51,553
QC	Kebaowek First Nation	10 km north east	274
QC	Wolf Lake First Nation	40 km (Hunter's Point) north east	227
QC	Timiskaming First Nation	90 km north	539



Province	Community	Proximity to the TDC	Population*
ON	Algonquins of Pikwakanagan First Nation	180 km south east	440
ON	Mattawa / North Bay Algonquin First Nation	50 km south east	N/A
ON	Antoine Nation	50 km south east	450
ON	Mattawa and North Bay Metis Community Councils (represented by MNO Region 5 Consultation Committee)	50 km south east (Mattawa); 50 km south west (North Bay)	N/A

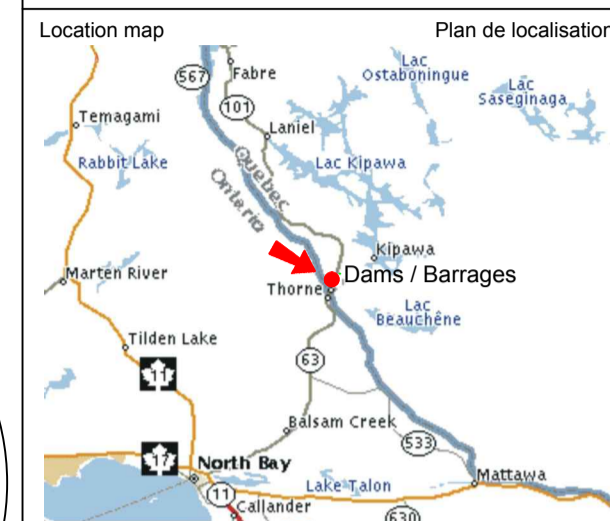
\* Statistics Canada, 2017d

N/A - Population data for these First Nations are not collected by Statistics Canada nor by Indigenous and Northern Affairs Canada

### 9.2.3.2 Socio-economic Regional Study Area

For the purpose of assessing cumulative impacts, a Regional Study Area (RSA) has been defined and includes communities in the Ottawa River watershed – specifically those that are and will continue to be affected by changing water levels upstream and downstream of the Project as a result of the reconstruction and continued operation of the Quebec dam. The Map 4.3 (in Chapter 4) shows the RSA which may be affected, and stretches the length of the Ottawa River to Montreal.

## Appendix 9.1 - Title of Ownership



LEGEND / LÉGENDE

- PWGSC PROPERTY LIMITS / LIMITES DE LA PROPRIÉTÉ DE TPWGC
- DENOTES LICENCE / INDIQUE UN PERMIS
- WATER'S EDGE / RIVE
- 1 LAND OWNERSHIP INVENTORY PARCEL IDENTIFICATION NUMBER (LOI PARCEL) / NUMÉRO DE PARCELLE DU RAPPORT D'INVENTAIRE FONCIER
- BUILDING FOOTPRINT / CONTOUR DES IMMEUBLES
- TEMBEC ENCROACHMENT / EMPÎÈTEMENT DE TEMBEC
- PWGSC ENCROACHMENT / EMPÎÈTEMENT DE TPWGC

NOTES: INFORMATION SHOWN ON THIS EXPLANATORY TITLE RECORD DRAWING IS TO BE READ IN CONJUNCTION WITH THE WRITTEN COMPONENT OF THE LAND OWNERSHIP INVENTORY REPORT.

UNDERLYING MAPPING IS FROM LAND SURVEY DATED NOVEMBER 1999 (QUÉBEC) AND DECEMBER 2011 (ONTARIO).

CAUTION: THIS DRAWING IS A COMPILED GRAPHIC REPRESENTATION ONLY AND IS SUBJECT TO VERIFICATION BY SURVEY. SHOULD THERE BE A CONFLICT BETWEEN THIS DRAWING AND PREVIOUSLY REGISTERED DOCUMENTATION OR SURVEY RECORDS, THE REGISTERED DOCUMENTATION SHALL GOVERN.

LINEWORK ON THIS DRAWING HAS BEEN BASED ON MANUAL INPUT FROM REGISTERED SURVEY DOCUMENTS AND DATA IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED AND THE USER SHALL BE CAUTIONED THAT ANY AND ALL LIABILITIES FOR DAMAGE, DIRECT OR INDIRECT, HOWEVER CAUSED AND RESULTING IN ANY WAY BY THE USE OF THE SUPPLIED DIGITAL DATA IS THE FULL AND FINAL RESPONSIBILITY OF USER.

NOTES: LES INFORMATIONS APPARAISSANT SUR CE PLAN D'INVENTAIRE DES TITRES DOIVENT ÊTRE LUES EN CONJONCTION AVEC LE RAPPORT QUI L'ACCOMPAGNE.

L'INFORMATION TOPOGRAPHIQUE PROVIENT DE LEVÉS TERRAIN EFFECTUÉS EN NOVEMBRE 1999 (QUÉBEC) ET DÉCEMBRE 2011 (ONTARIO).

AVIS: CE DESSIN EST UNE COMPILATION DE DOCUMENTS ENREGISTRÉS ET AUTRES DOCUMENTS OFFICIELS ET IL EST SUJET À UNE VÉRIFICATION PAR UN APPRÉNTI. LES PLANS ET DOCUMENTS OFFICIELS ONT PRÉVALEANCE SUR CETTE COMPILATION.

CE DESSIN A ÉTÉ COMPILÉ MANUELLEMENT À PARTIR DE DOCUMENTS ENREGISTRÉS ET L'INFORMATION EST LIVRÉE "TEL QUEL" SANS AUCUNE GARANTIE EXPRIMÉE OU IMPLICITE. L'UTILISATEUR DEVRAIT ÊTRE PRUDENT QUANT À L'UTILISATION QU'IL EN FAIT, ET TOUT DOMMAGE DIRECT OU INDIRECT RÉSULTANT DE L'UTILISATION DE L'INFORMATION PRÉSENTE EST LA RESPONSABILITÉ DE L'UTILISATEUR.

REVISIONS				
No.	By/Par	Date	Approved/ Approuvé	Revisions

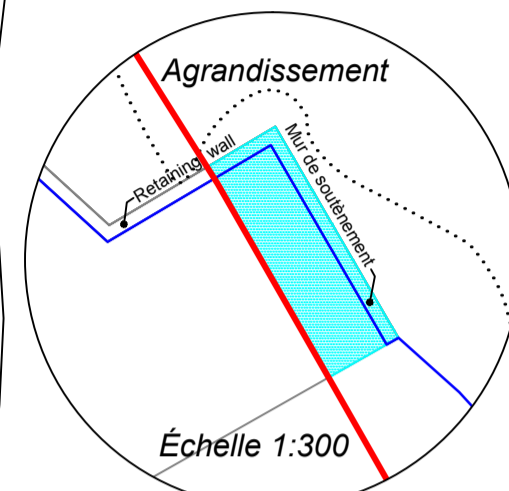
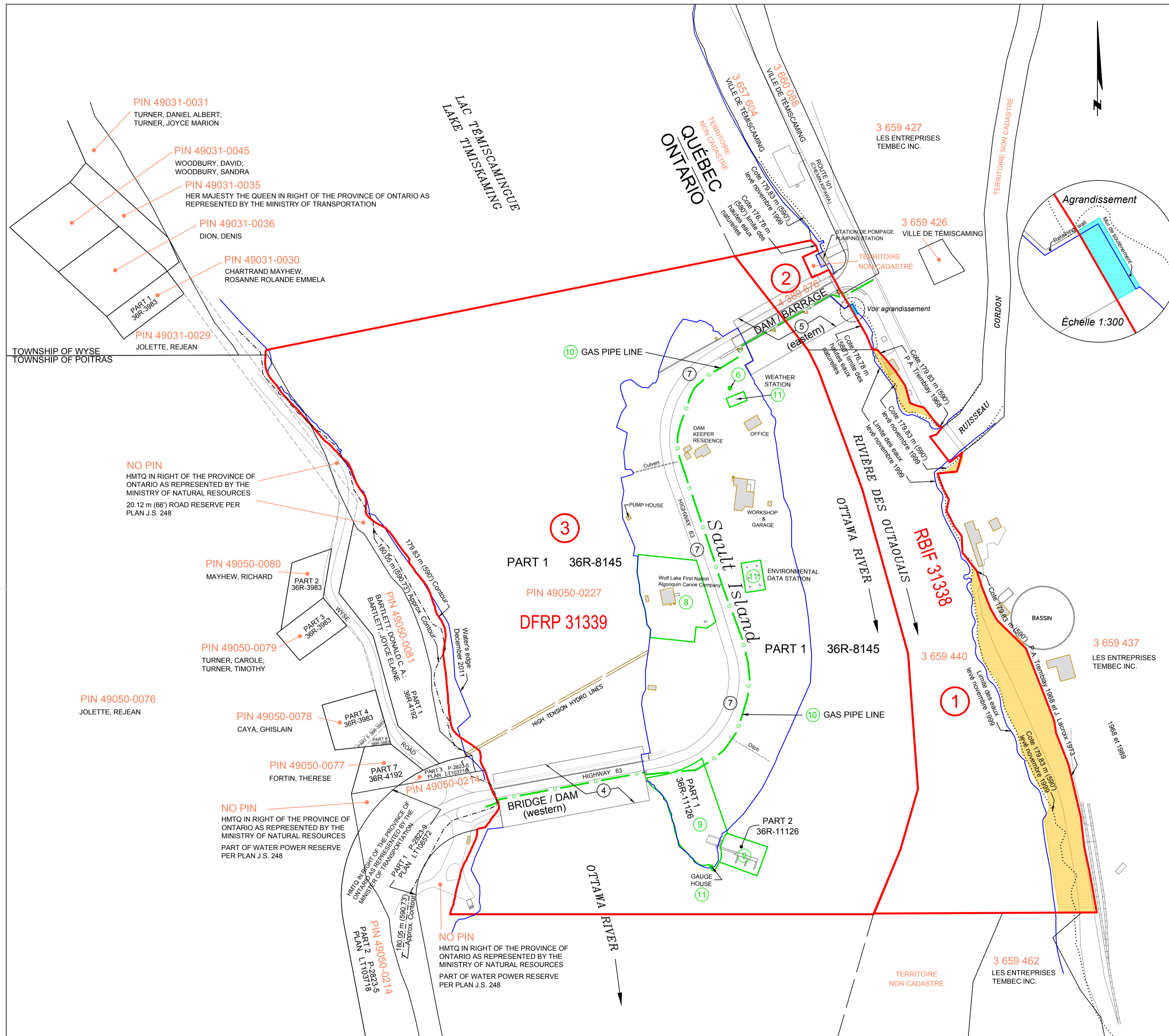
Project title / Nom du projet

**Timiskaming Dams / Barrages de Témiscamingue**

Drawing title / Titre du plan  
**EXPLANATORY TITLE RECORD DRAWING / PLAN D'INVENTAIRE DES TITRES**

Scale / Échelle  
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Verified by / Vérifié par P.R., F.B.	Sheet / Feuille 1 / 1	



## Appendix 9.2 - Photographs



**Photo 1 : Timiskaming Dam-Bridge of Quebec – view from downstream**



**Photo 2 : Timiskaming Dam-Bridge of Quebec – view from upstream**



**Photo 3 : Dam – view from downstream**



**Photo 4 : Dam – view from downstream**



**Photo 5 : Left bank - view from downstream**



**Photo 6 : Right bank – view from downstream**



**Photo 7 : Left bank downstream -  
Mouth of Gordon Creek**



**Photo 8 : Left bank downstream -  
Long Sault Island**



**Photo 9 : Dam entrance, Kipawa Road -  
view toward the south**



**Photo 10 : Dam deck, roads 63 et 101 -  
view toward the east**



**Photo 11 : PSC office, Long Sault Island**



**Photo 12 : Meteorological station, Long Sault Island**



**Photo 13 : PSC garage, Long Sault Island**



**Photo 14 : Garage, Long Sault Island**