

City of Timmins

Annual Porcupine Lake Surface Water Monitoring Program

Timmins, ON

The City of Timmins oversees the Whitney-Tisdale Wastewater sanitary system that includes seven lift stations that direct wastewater to the Whitney-Tisdale Wastewater Treatment Plant. Aging infrastructure and excessive flows to six of the lift stations around Porcupine Lake, have led to residential sewer backups and sewage bypasses into Porcupine Lake. These bypasses have resulted in the discharge of untreated sewage directly into the environment. These bypasses are typically a result of increased flows such as spring freshet and/or intense onset of precipitation events where flows exceed the capacity of the infrastructure. A bypass event is used as a tool to prevent sewage backups into residential homes, in this case the residences surrounding Porcupine Lake. The Client's collection system services approximately 280 hectares of residential, commercial, industrial and institutional properties. Approximately 98% of the sewage collection system is covered by the 6 lift stations located along the perimeter of Porcupine Lake. The seventh lift station, known as the Penland Pumping station, services a small residential area in the northwestern area of the community. Following the collection of sewage at the Whitney-Tisdale Sewage Treatment Plant, the sewage is treated and the effluent from the plant is discharged directly into the Porcupine River, approximately 2 kilometers downstream of Porcupine Lake.

As a result, the City of Timmins has commissioned monthly water quality monitoring at seven locations on Porcupine Lake and river system during the ice-free season to assess the impact, if any, of these bypass events, as well as the overall water quality of Porcupine Lake.

The Porcupine Lake Water Quality Monitoring Program locations were predetermined by the City of Timmins in order to collect surface water samples at the following 7 locations:

- ✓ Evans Street Tributary upstream of the bypasses
- ✓ Middle of Porcupine Lake
- ✓ Porcupine Lake in proximity of storm sewer outlets
- ✓ Porcupine Lake near public beach
- ✓ After Pump Station #6, before Whitney-Tisdale WWTP, downstream of bypasses
- ✓ After Whitney-Tisdale WWTP
- ✓ Tributary from Bob's Lake off Gold Rush Street.



▲ Surface Water Monitoring Location

 Main Sewer Line

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- 2) Do not scale drawing
- 3) This drawing may have been reduced. All scale notations indicated are based on a 11"x17" format drawings.
- 4) Coordinate system: NAD 1983 UTM Zone 17N

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A map of the Timmins area in Ontario, Canada. The city of Timmins is labeled vertically in the center. A red square marks the location of the Timmins Correctional Centre, situated north of the city center. The map shows major roads in orange and green, and water bodies in blue.

PROJECT LOCATION

PORCUPINE LAKE

CORPORATION OF THE
CITY OF TIMMINS

TITLE
PORCUPINE LAKE
SURFACE WATER
MONITORING LOCAL

FIGURE 2

238581.000

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