

**The Corporation of the Town of Fort Frances
Wastewater Treatment Plant
(Sewage Plant)
June 2016 Monthly Operations Report**

INTRODUCTION

In accordance with the Agreement between the Ontario Clean Water Agency (Operating Authority) and the Town of Fort Frances, the Fort Frances Sewage Treatment Plant is required to prepare a monthly report. This document covers the reporting month of June 2016; the facility performance report summarizes important information regarding the quality of the effluent, wastewater, analytical test results, maintenance operations, and relevant activities of the WWTP.

DESCRIPTION OF WORKS

Capacity of Works	9000 m ³ /day (average flow)
Service Area	Town of Fort Frances and Couchiching Reserve
Service Population	9000
Effluent Receiver	Rainy River
Major Process	Secondary treatment facility complete with a phosphorus removal system; ultra violet disinfection; aerobic sludge stabilization and dewatering

The Fort Frances Sewage Treatment Plant received and operates its operation under *Certificate of Approval Number 3-0049-96-006*, in accordance with Section 53 of the Ontario Water Resources Act. The Certificate of Approval outlines the terms and conditions and the report captures these terms and conditions in the following sections.

LABORATORY

ALS Laboratory Group – Thunder Bay is contracted to conduct the required analytical tests of the influent (raw) and effluent samples; weekly requirement.

JUNE 2016 EFFLUENT QUALITY

<i>Parameters</i>	<i>Monthly Actual Concentration mg/L</i>	<i>Compliance Criteria Concentration mg/L</i>	<i>Performance Objective Concentration mg/L</i>	<i>Monthly Actual Loading, kg/d</i>	<i>Compliance Criteria Loading kg/d</i>	<i>Performance Objective Loading kg/d</i>
CBOD ₅	2.0 mg/L	25 mg/L	15 mg/L	18.5 kg/d	225 kg/d	135 kg/d
Total Suspended Solids	3.9 mg/L	25 mg/L	15 mg/L	40.0 kg/d	225 kg/d	135 kg/d
Total Phosphorus	0.19 mg/L	1.0 mg/L	0.9 mg/L	1.8 kg/d	9 kg/d	8.1 kg/d
Total Nitrogen Nitrate Nitrogen	8.57 mg/L 6.48 mg/L					
Total Cl ₂ Residual		<0.01 mg/L (when in use)				
E-Coli		19.3 count/100 ml (geometric mean)		200 count/100ml (geometric mean)		E-coli not to exceed 150 organisms/100ml (monthly geometric mean density)
pH				pH range 7.4 to 8.0; average pH was 7.7		
Temperature degrees C				Temperatures ranged from 11.5 to 13.0 C; average temperature of effluent was 12.5 C		

Compliance criteria are mandatory requirements of the C of A and performance objectives are a goal to be achieved using best reasonable efforts.

WASTEWATER LIQUID PROCESS

The average daily flow for June was 9140.5 m³/day. This represents 102% of the design average flow. Total treated flow for the month was 274216 m³.

The Fort Frances WWTP met all effluent compliance criteria for the parameters listed above and additionally was well within the recommended more stringent monthly performance objective levels as outlined in the Certificate of Approval.

INVENTORY

Chemical	End of Month Status	Units
Hypochlorite	1110 +/- @ 7.0% + 410 @ 12%	Litres
Alum	11.4 +/- @ 60 %	Cubic meters
Polymer	11 Bags (275 kg)	Bags (25 kg/bag)

MAINTENANCE

The operators performed the routine operations and maintenance at the treatment plant and pumping stations. The activities are highlighted as follows:

Treatment Plant:

- Alternated lead/lag pumps
- Adjusted fluidizing water to head cell and grit snail as needed
- Greased GBT, mechanical bar screen and grit snail. Lubricated drive chain on grit snail and bar screen
- Regular cleaning of head works EW basket strainer
- Regular cleaning of seal water strainer TFP 9-5
- Greased all clarifier drives
- Replaced belt air handler ASU-02
- Cleaned both grit pumps
- Pumped water from digester valve pit
- Calibrated influent sampler
- Removed debris from grit pump 1 outlet reducer
- Replaced shear pin longitudinal collector drive 1
- Drained and cleaned Teacup and Snail
- Backflow preventer and expansion tank for the boiler make up water were replaced by Pryde's Plumbing
- A coolant hose on the portable diesel generator was replaced by TOFF
- Pulled and cleaned RAS pump 1

Pump Stations:

- Ran gensets
- Changed seal water strainers
- Cleaned bar screens

OPERATIONAL ISSUES

There were no operational issues in the report period.

SLUDGE SUMMARY

Asselin Transportation and Storage Limited hauled a total of 217.4 m³ of thickened digested sludge (12.1 m³/load average) to the Town of Fort Frances landfill site.

COMPLAINTS

There were no complaints during the report period.

BY-PASS REPORT(S)

There was a bypass event on June 25th and 26th and a report is available.

COMMENTS

Plant power consumption for the month was 652 (x 180 multiplier) kWh.
Annual fire extinguisher inspections/tests were completed by SPI safety.

REPORTS

ALS – Environmental Analytical Reports (on-file at plant)
Fort Frances WPCP Equipment Run Time Report (on-file at plant)
Bypass Report (on-file at plant as per occurrence)
Incident Report (on-file at plant as per occurrence)