

July 28, 2020

Report To: Mayor & Council

From: Travis Rob, P.Eng., Manager of Operations & Facilities

SUBJECT: June 2020 Drinking Water Systems Monthly Summary Report

Please find attached the June 2020 Summary Report on the drinking water systems, prepared by Brad Webb, Senior WTP Operator.

Your Administration recommends that Operations & Facilities Executive Committee accept the June 2020 report as presented.


Respectfully submitted,
Operations & Facilities Division



Travis Rob, P.Eng.
Manager of Operations & Facilities

Council approval of this report will accept the June 2020 report prior to it being made available to the general public.

c.c. – Craig Miller, P.Eng., Environmental Superintendent
Brad Webb, ORO, Senior WTP Operator

RECOMMENDED
AUG 05 2020
DIV. MNG
EXECUTIVE COMM.


June 2020

**Monthly Summary Report
Water Systems**

**Prepared by: Brad Webb, ORO
Senior Water Treatment Plant Operator**

Dated: July 15, 2020

1) **Introduction:**

This report contains the major maintenance activities and operational events that occurred during the month of June 2020 at the Water Treatment Plant - Water Works # 220000978 and the Airport Groundwater Well Water Works No. 849N7DGE0 (Precedes Airport Groundwater Well Water Works No. 26002736). This information report has been prepared for Council to better understand how the water systems they own and operate are maintained on a monthly basis. Also, this report will assist Council as Directors of the Corporation in exercising its obligation to meet a reasonable Standard of Care as outlined in Section 19 of the Safe Drinking Water Act. The water treatment plant falls under the requirements of Ontario Regulation 170/03 – Drinking Water Systems.

The Airport Small Drinking Water System, System No. 849N7DGE0, was put into service August 01, 2017. The system falls under the requirements of Ontario Regulation 319/08 – Small Drinking Water Systems.

2) **Flow Data:**

Water Treatment Plant: See attached spreadsheet.

Airport Groundwater Well:

Estimated Daily Usage	0.21 m3
Estimated June Usage	6.3 m3

3) **Microbiological (Health Related) Water Analysis - Main Water System No. 220000978:**

Water Treatment Plant (treated): 4 samples taken no adverse results

Water Treatment Plant (raw): 4 samples taken no adverse results

Water Distribution System: 16 samples taken where 25% of samples were tested for heterotrophic plate count (HPC) - no adverse results.

1 Adverse Sample from Point Park Camprground – reopening sample
Re-sampled per MECP requirements and tested okay.

We take microbiological samples on a weekly basis, which includes 1 raw sample, 1 treated sample and 4 distribution samples. The 4 distribution samples are taken at different locations throughout the distribution system.

Water distribution samples taken at the following locations:

1. 940 Third St. E.	2. 401 King's Hwy.	3. 901 Wright Ave.	4. W. Tower
5. 943 Third St. E.	6. 401 King's Hwy.	7. 901 Wright Ave.	8. W. Tower
9. 1111 First St E.	10. 1324 Kings Hwy.	11. 901 Wright Ave.	12. W. Tower
13. 1017 Cornwall Ave.	14. 401 King's Hwy.	15. 901 Wright Ave.	16. W. Tower

4) Microbiological (Health Related) Water Analysis - Airport Groundwater Well No. 849N7DGE0:

New drinking water system put online August 01, 2017. No treatment required as the Airport groundwater tested negative for bacteria.

The Airport drinking water system is to be sampled and tested for bacteria once every three (3) months in accordance with Section 25 – Microbiological Sampling and Testing of the Small Drinking Water Systems Regulation, O. Reg. 319/08.

Water distribution sample taken June 23, 2020 – no adverse results.

5) Free Available Chlorine Residual (FAC) - Main Water System No. 220000978:

FAC residuals are taken at a minimum daily at both the Water Treatment Plant and within the Water Distribution System.

6) Free Available Chlorine Residual (FAC) - Airport Groundwater Well System No. 849N7DGE0:

New drinking water system put on line August 01, 2017. No treatment required as the Airport groundwater well tested negative for bacteria.

7) Maintenance Activities at the WTP:

June 01st -Changed membrane on Chlorine analyzer.

June 03rd -Calibrated chlorine analyzer.

June 04th - Cleaned top and bottom tanks on poly unit.
- Cleaned all four (4) check valves on poly unit.

June 09th - Calibrated distribution chlorine analyzer.

June 11th -pulled motor off back wash pump and replaced it with spare motor.
- Cleaned top and bottom tanks on poly unit.
- Cleaned all four (4) check valves on poly unit.

June 12th - Took grab samples off the filters.
-Calibrated fluoride analyzer.

June 17th - Calibrated fluoride analyzer.

June 24th -Took grab samples off the filters.

June 25th - Cleaned all four (4) check valves on the poly unit.

June 26th - Cleaned top and bottom tanks on poly unit.

8) **Water Complaints:**

- Poor Pressure – 0 complaints.
- Water quality – 0 complaints.

9) **Other Miscellaneous Information:**

June 01st - Routine micro sample collection.

June 03rd -first set of bacti samples on Colonization Rd. West.

June 04th -first set of bacti samples on Scott St from Reid Ave. to Mini Ave.
- second set of bacti samples on Colonization Rd. West.

June 05th -second set of bacti samples on Scott St from Reid Ave. to Mini Ave.

June 08th - Routine micro sample collection.

June 09th – resampled on Scott St from Reid Ave. to Mini Ave. first set never got to lab on time.

June 10th -Backwash pump blew up took off line.

June 15th - Routine micro sample collection.
-took seasonal samples at Point Park.
-took samples at Colonization Road West Temp Main. 1st set.

June 16th -took samples at Colonization Road West Temp Main. 2nd set.
-took samples for tie in at Reid Ave. and Scott St. 1st set.

June 17th -Adverse Sample at Point Park seasonal line.
-Called all the appropriate people.
-Resampled Point Park.
-took samples for tie in at Reid Ave. and Scott St. 2nd set.

June 18th -took samples for tie in at Mini Ave. and Scott St. 1st set.

June 22nd - Routine micro sample collection.

- took samples for tie in at Mini Ave. and Scott St. 2nd set.

- took seasonal samples at Sorting Gap Marina.

June 23rd -Did Quarterly samples.

June 24th -Changed chlorine tank.

- Took samples for Church St. watermain repair. 1st set.

June 25th - Took samples for Church St. watermain repair. 2nd set.

June 29th - Routine micro sample collection.

10) In order to acknowledge that all levels of responsibility within the Corporation of the Town of Fort Frances have received and reviewed this monthly report, it is necessary to sign-off in the appropriate location below:

- Brad Webb, ORO, Senior WTP Operator: _____
- Craig Miller, P.Eng. Environmental Superintendent: _____
- Travis Rob, P.Eng. Manager of Operations & Facilities: _____
- Doug Brown, P.Eng. CAO: _____
- Rick Wiedenhoeft, Chair O & F Exec Committee: _____
- June Caul, Mayor: _____
- John McTaggart, Councillor: _____
- Mike Behan, Councillor: _____
- Wendy Brunetta, Councillor: _____
- Doug Judson, Councillor: _____
- Andrew Hallikas, Councillor: _____

Note: Once all signatures have been obtained, the report will be distributed and made available to the public. If you have any questions, please feel free to contact myself or Brad Webb, Senior WTP Operator at 274-2325.

Flow and Operating Data

Flow Data JUNE	Units	2018	2019	2020
Total Raw Water	m ³	160740	161220	169000
Raw Maximum Day	m ³	5660	6910	6060
Raw Minimum Day	m ³	5120	5060	5110
Raw Average Daily Consumption	m ³	5360	5370	5630
Total Treated Water	m ³	119760	110860	115660
Treated Water Maximim Day Consumption	m ³	5080	4760	5380
Treated Water Minimim Day Consumption	m ³	2990	3060	2960
Treated Water Average Day Consumption	m ³	3990	3700	3860
Daily Average Per Household Consumption Rate	m ³	1.055	0.978	1.020
* Daily Average Per Person Consumption Rate	m ³	0.500	0.463	0.483
Monthly Averages - Operating Parameters WTP:				
FAC Residual - Treated Water	mg/L	1.94	2.11	1.96
Total Chlorine Residual - Treated Water	mg/L	2.23	2.40	2.21
Aluminum Sulphate - Raw Water	mg/L	35.00	35.00	37.00
Aluminum Sulphate - Treated Water Residual	mg/L	0.02	0.02	0.04
Fluoride - Treated Water	mg/L	0.70	0.73	0.68
Soda Ash - Raw Water	mg/L	35.00	35.00	34.00
pH - Adjusted		7.14	7.30	6.97
Temperature	°C	18.87	15.60	16.20
Quantity of Chemical Used:				
Aluminum Sulphate	kg	5625.90	5642.70	6253.00
Polyelectrolyte	kg	112.50	62.50	62.50
Chlorine Gas	kg	767.00	765.00	799.00
Soda Ash - Used for pH Adjustment	kg	5625.90	5642.70	5746.00
Fluoride	kg	489.00	681.00	751.00

* The Canadian Average is 450 Litres (0.45 m³) per day.

* Population is 7986

* Number of Households is 3783