Annual Report

FOR

Town of Arnprior Waterworks

Period: January 1, 2020 – December 31, 2020

Drinking-Water System Number:	220000932
Drinking-Water System Name:	Arnprior Drinking Water System
Drinking-Water System Owner:	Town of Arnprior
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	Year 2020

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]

Is your annual report available to the public at no charge on a web site on the Internet?
Yes [X] No [ ]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Town of Arnprior
Town Hall
105 Elgin St. W.
Arnprior ON.
K7S 0A8

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [ ] No [ ] N/A [x]

Indicate how you notified system users that your annual report is available, and is free of charge.

[x] Public access/notice via the web
[x] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[x] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[ ] Public access/notice via other method

_____

Describe your Drinking-Water System

The Arnprior Water Filtration Plant (WFP) is owned and operated by the Corporation of the Town of Arnprior. The WFP is situated at 71 James St. Arnprior Ontario, plant operators can be reached at 613-623-4231 Ext 1809. Certified operators monitor and control the treatment and testing of water production and quality.

Water is pumped from the Madawaska River to the treatment plant where Coagulant and Polymer are added as a flocculent. The water is then put through a clarification process called an Actiflo system, where microsand is utilized to enhance flocculation and acts as a ballast to aid in settling solids. The water is then filtered; Chlorine, Fluoride, Phosphoric Acid and Soda Ash are added to prepare the water for consumption. The treated water is stored in two 2,200 m3 reservoirs, Aqueous Ammonia is added, the treated water is then pumped to the distribution system, as well as a 2,700 m3 elevated water storage tank.

List all water treatment chemicals used over this reporting period

- Coagulant
- Soda Ash
- Chlorine gas
- Fluoride
- Ammonium Sulphate
- Phosphoric Acid

Were any significant expenses incurred to?

[ ] Install required equipment
[ ] Repair required equipment
[X] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

- Replaced pH probe on treated water online analyzer.
- Replaced plumbing and equipment on soda ash system.
- Purchased chlorine gas preventative maintenance kits
- Purchased diaphragms for filter effluent valves

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
25/Feb/20	Total chlorine in distribution	0.05	mg/l	Flushed hydrant. Confirmed adequate chlorine residual	26/Feb/20
21/Apr/20	Operational. Corrosion control out of service Soda ash system out of service	N/A	N/A	Repaired equipment on soda ash system and returned both soda ash and corrosion control to service.	28/Apr/20
27/May/20	Operational. Corrosion control out of service Soda ash system out of service	N/A	N/A	Repaired plumbing on soda ash system and returned both soda ash and corrosion control to service	29/May/20
11/Nov/20	Total coliform count	1	CFU/100 ml	Re-sampled same day. Lab results zero for total coliform	11/Nov/20

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	0 - 15	3 - 43	N/A	
Treated	52	absent	absent	52	<2 - 2
Distribution	312	absent	0 - 1	156	<2 - 38

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results
Turbidity	8760	0.03 - 0.15 NTU
Chlorine (Free)	8760	0.93 – 2.03 mg/L
Fluoride (If the DWS provides fluoridation)	8760	0.53 - 0.76 mg/L

***NOTE**: For continuous monitors use 8760 as the number of samples.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Parameter	Date Sampled	Result	Unit of Measure
Benzo(a)pyrene	Jan. 14/20	<0.005	µg/L
Haloacetic Acid	Jan 14/20	21.0	µg/L
Total organic Carbon	Jan. 14/20	2.5	mg/L
Dissolved Organic Carbon	Jan. 14/20	1.5	mg/L
Colour	Jan. 14/20	<2	TCU
Nitrite	Jan. 14/20	<0.1	mg/L
Nitrate	Jan. 14/20	<0.1	mg/L
Benzo(a)pyrene	Apr. 7/20	<0.005	µg/L
Haloacetic Acid	Apr. 7/20	19.5	µg/L
Total organic Carbon	Apr. 7/20	2.0	mg/L
Dissolved Organic Carbon	Apr. 7/20	1.9	mg/L
Colour	Apr. 7/20	<2	TCU
Nitrite	Apr. 7/20	<0.1	mg/L

Nitrate	Apr. 7/20	0.1	mg/L
Benzo(a)pyrene	Jul. 14/20	<0.005	µg/L
Haloacetic Acid	Jul. 14/20	38.7	µg/L
Total organic Carbon	Jul. 14/20	2.7	mg/L
Dissolved Organic Carbon	Jul. 14/20	<0.2	mg/L
Colour	Jul. 14/20	<2	TCU
Nitrite	Jul. 14/20	<0.1	mg/L
Nitrate	Jul. 14/20	<0.1	mg/L
Benzo(a)pyrene	Oct. 20/20	<0.006	mg/L
Haloacetic Acid	Oct. 20/20	26.3	µg/L
Total organic Carbon	Oct. 20/20	2.4	mg/L
Dissolved Organic Carbon	Oct. 20/20	2.2	mg/L
Colour	Oct. 20/20	<2	TCU
Nitrite	Oct. 20/20	<0.1	mg/L
Nitrate	Oct. 20/20	<0.1	mg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Jan. 14/20	<0.0001	mg/L	no
Arsenic	Jan. 14/20	0.0002	mg/L	no
Barium	Jan. 14/20	0.020	mg/L	no
Boron	Jan. 14/20	<0.005	mg/L	no
Cadmium	Jan. 14/20	<0.000015	mg/L	no
Chromium	Jan. 14/20	<0.002	mg/L	no
*Lead	Jan. 14/20	<0.00002	mg/L	no
Mercury	Jan. 14/20	<0.00002	mg/L	no
Selenium	Jan. 14/20	<0.001	mg/L	no
Uranium	Jan. 14/20	<0.00005	mg/L	no

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period (Applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems).

Location Type	Number of Sample sites	Range of Lead Results mg/L (min#) – (max #)	Number of Exceedances (>0.01mg/L)
Plumbing	12	0.00005 – 0.00936	0
Distribution	4	0.00015 – 0.00066	0
Treated	1	0.00002 – 0.00004	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Jan. 14/20	<0.3	µg/L	no
Atrazine + Metobolites	Jan. 14/20	<0.5	µg/L	no
Azinphos-methyl	Jan. 14/20	<1	µg/L	no
Benzene	Jan. 14/20	<0.5	µg/L	no
Benzo(a)pyrene	Jan. 14/20	<0.005	µg/L	no
Bromoxynil	Jan. 14/20	<0.5	µg/L	no
Carbaryl	Jan. 14/20	<3	µg/L	no
Carbofuran	Jan. 14/20	<1	µg/L	no
Carbon Tetrachloride	Jan. 14/20	<0.2	µg/L	no
Chlorpyrifos	Jan. 14/20	<0.5	µg/L	no
Diazinon	Jan. 14/20	<1	µg/L	no
Dicamba	Jan. 14/20	<10	µg/L	no
1,2-Dichlorobenzene	Jan. 14/20	<0.5	µg/L	no
1,4-Dichlorobenzene	Jan. 14/20	<0.5	µg/L	no
1,2-Dichloroethane	Jan. 14/20	<0.5	µg/L	no
1,1-Dichloroethene (vinylidene chloride)	Jan. 14/20	<0.5	µg/L	no
Dichloromethane	Jan. 14/20	<5.0	µg/L	no
2-4 Dichlorophenol	Jan. 14/20	<0.1	µg/L	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan. 14/20	<10	µg/L	no
Diclofop-methyl	Jan. 14/20	<0.9	µg/L	no
Diquat	Jan. 14/20	<5	µg/L	no
Diuron	Jan. 14/20	<5	µg/L	no
Glyphosate	Jan. 14/20	<25	µg/L	no
Malathion	Jan. 14/20	<5	µg/L	no
Metolachlor	Jan. 14/20	<3	µg/L	no
Metribuzin	Jan. 14/20	<3	µg/L	no

Monochlorobenzene	Jan. 14/20	<0.5	µg/L	no
Paraquat	Jan. 14/20	<1	µg/L	no
Pentachlorophenol	Jan. 14/20	<0.1	µg/L	no
Phorate	Jan. 14/20	<0.3	µg/L	no
Picloram	Jan. 14/20	<15	µg/L	no
Polychlorinated Biphenyls(PCB)	Jan. 14/20	<0.05	µg/L	no
Prometryne	Jan. 14/20	<0.1	µg/L	no
Simazine	Jan. 14/20	<0.5	µg/L	no
THM (NOTE: show latest annual average)	Oct. 20/20	29.0	µg/L	no
Terbufos	Jan. 14/20	<0.5	µg/L	no
Tetrachloroethylene	Jan. 14/20	<0.5	µg/L	no
2,3,4,6-Tetrachlorophenol	Jan. 14/20	<0.1	µg/L	no
Triallate	Jan. 14/20	<10	µg/L	no
Trichloroethylene	Jan. 14/20	<0.5	µg/L	no
2,4,6-Trichlorophenol	Jan. 14/20	<0.1	µg/L	no
Trifluralin	Jan. 14/20	<0.5	µg/L	no
Vinyl Chloride	Jan. 14/20	<0.2	µg/L	no
MCPA	Jan. 14/20	<10	ug/L	no

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date and Location
Lead	0.0089 0.00924 0.00885	mg/l	14-Aug-2020 27-Oct-2020 10-Nov-2020 All private residential

Scott Matthews
Waterworks Supervisor
Arnprior