



OPTIONAL ANNUAL REPORT TEMPLATE

<b>Drinking-Water System Number:</b>	220001432
<b>Drinking-Water System Name:</b>	City of Dryden Water Treatment
<b>Drinking-Water System Owner:</b>	City of Dryden
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2021 – December 31, 2021

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [ X ]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>A hard copy is available for inspection at the Public Works office at 159 King St. or on the web at www.dryden.ca.</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">None</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ] <b>N/A</b></p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">None</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ] <b>N/A</b></p>
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**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**



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

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- 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 City of Dryden Water Treatment Plant is a Class II conventional surface water treatment plant. Raw water is pumped from Wabigoon Lake approximately 2km to the treatment plant where Aluminum Sulphate (alum) is added for coagulation. A second Raw water line has been added to provide redundancy. The water then flows to one of two solids contact units where polymer is added, and flocculation and sedimentation occurs. The heavier settled floc is dumped to the sanitary sewer. Hydrated lime is added for PH adjustment just before the effluent is gravity fed to four dual media rapid sand filters. The filters are equipped with automatic filter to waste valves. In the event of high filter effluent turbidity, the valves open automatically sending the high turbid water to waste. Filtered water then flows to the Clearwell. Chlorine is added in the Clear-well for primary disinfection. The water then flows to the reservoir and then to the Pump-well where it is pumped to the distribution system. Chlorine residual and turbidity are monitored with continuous on-line analyzers just prior to the water leaving the plant. The distribution system consists of 60 kilometers of water mains of various sizes and materials, 840 valves, 305 fire hydrants and 2600 service connections, supplying a service population of 6555.

**List all water treatment chemicals used over this reporting period**

Aluminum Sulphate (alum), Polymer (Nalclear 8181), Hydrated Lime and Chlorine Gas.

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment

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

- **Replace Raw & Treated flowmeter electronics - \$7,785.00**
- **Instrument Calibrations - \$2,400.00**
- **SCADA Maintenance - \$17,916.00**
- **Replace Roof - \$349,565.00**
- **Vestibule Repair - \$4,070 spent to date, \$28,230.00 pending.**



- **Electrical Surge Protector - \$9,136**
- **Sludge Blow -Down Valve Replacement - \$10,456.00**
- **Raw Water Intake Repair - \$30,853.00**
- **HVAC Repairs - \$18,886.00**
- **Water Main Valve Replacements - \$104,841.00**
- **Hydrant Flushing - \$21,308.00**
- **Water Main Break Repairs - \$142,324.00**
- **Operator Training - \$34,175.00**
- **Overhead Crane Inspections - \$800.00**

**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
2021/07/22	Microbiologic	EC & TC	Unable to maintain air gap on water main repair.	Flush water main & collect 2 rounds of samples.	2021/07/22

**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 #)
<b>Raw</b>	52	0 → 26 MPN/100mls	0 → >200 MPN/100mls	None	N/A
<b>Treated</b>	52	0 cfu/100mls	0 cfu/100mls	52	0 → 20 cfu/ ml
<b>Distribution</b>	312	0 cfu/100mls	0 cfu/100mls	104	0 → 760 cfu/ ml

**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 (min #)-(max #)
<b>Turbidity</b>	<b>8760</b>	<b>0.04 → 1.00 NTU</b>
<b>Chlorine</b>	<b>8760</b>	<b>1.26 → 1.70 Mg/l</b>

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



<b>Fluoride</b> (If the DWS provides fluoridation)		<b>N/A</b>
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***NOTE:** Record the unit of measure if it is **not** milligrams per litre.*

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

<b>Date of legal instrument issued</b>	<b>Parameter</b>	<b>Date Sampled</b>	<b>Result</b>	<b>Unit of Measure</b>	<b>Limit</b>
<b>Jan 20, 2011</b> Licence-223-101	<b>Backwash Suspended Solids</b>	<b>12 Monthly Composite samples</b>	0.67 → 5.30	<b>Mg/L</b>	<b>25 Mg/L</b>

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

<b>Parameter</b>	<b>Sample Date</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Exceedance</b>
<b>Antimony</b>	Jan. 4	<0.5	Ug/l	No
<b>Arsenic</b>	Jan. 4	<1	Ug/l	No
<b>Barium</b>	Jan. 4	<b>5.0</b>	Ug/l	No
<b>Boron</b>	Jan. 4	<b>4.0</b>	Ug/l	No
<b>Cadmium</b>	Jan. 4	< <b>0.1</b>	Ug/l	No
<b>Chromium</b>	Jan. 4	< <b>1.0</b>	Ug/l	No
<b>*Lead</b>	May 11 / Oct. 13	< <b>0.1</b>	Ug/l	No
<b>Mercury</b>	Jan. 4	< <b>0.1</b>	Ug/l	No
<b>Selenium</b>	Jan. 4	< <b>0.2</b>	Ug/l	No
<b>Sodium</b>	Jan. 4	<b>3710</b>	Ug/l	No
<b>Uranium</b>	Jan. 4	< <b>1.0</b>	Ug/l	No
<b>Fluoride (Raw Water)</b>	Jan. 4	<b>0.05</b>	Mg/l	No
<b>Nitrite</b>	Oct. 4	< <b>0.05</b>	Mg/l	No
<b>Nitrate</b>	Oct. 4	< <b>0.05</b>	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 Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution	6	0.1 → 0.9 ug/L	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. 4	<0.275	Ug/l	No
<b>Aldicarb</b>	Jan. 4	<0.275	Ug/l	No
MCPA	Jan. 4	<5.54	Ug/l	No
Atrazine + N-dealkylated metabolites	Jan. 4	<0.5	Ug/l	No
Azinphos-methyl	Jan. 4	<0.206	Ug/l	No
<b>Bendiocarb</b>	Jan. 4	N/A	Ug/l	No
Benzene	Jan. 4	<0.1	Ug/l	No
Benzo(a)pyrene	Jan. 4	<0.009	Ug/l	No
Bromoxynil	Jan. 4	<0.0887	Ug/l	No
Carbaryl	Jan. 4	<1.0	Ug/l	No
Carbofuran	Jan. 4	<2.0	Ug/l	No
Carbon Tetrachloride	Jan. 4	<0.2	Ug/l	No
<b>Chlordane (Total)</b>	Jan. 4	N/A	Ug/l	No
Chlorpyrifos	Jan. 4	<0.206	Ug/l	No
<b>Cyanazine</b>	Jan. 4	N/A	Ug/l	No
Diazinon	Jan. 4	<0.206	Ug/l	No
Dicamba	Jan. 4	<0.0776	Ug/l	No
1,2-Dichlorobenzene	Jan. 4	<0.3	Ug/l	No
1,4-Dichlorobenzene	Jan. 4	<0.3	Ug/l	No
<b>Dichlorodiphenyltrichloroethane (DDT) + metabolites</b>	Jan. 4	N/A	Ug/l	No
1,2-Dichloroethane	Jan. 4	<0.3	Ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Jan. 4	<0.3	Ug/l	No
Dichloromethane	Jan. 4	<1.0	Ug/l	No
2-4 Dichlorophenol	Jan. 4	<0.2	Ug/l	No



2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan. 4	<0.333	Ug/l	No
Diclofop-methyl	Jan. 4	<0.111	Ug/l	No
Dimethoate	Jan. 4	<0.206	Ug/l	No
<b>Dinoseb</b>		N/A	Ug/l	No
Diquat	Jan. 4	<0.3	Ug/l	No
Diuron	Jan. 4	<6.0	Ug/l	No
Glyphosate	Jan. 4	<20.0	Ug/l	No
<b>Heptachlor + Heptachlor Epoxide</b>		N/A	Ug/l	No
<b>Lindane (Total)</b>		N/A	Ug/l	No
Malathion	Jan. 4	<0.206	Ug/l	No
<b>Methoxychlor</b>		N/A	Ug/l	No
Metolachlor	Jan. 4	<0.137	Ug/l	No
Metribuzin	Jan. 4	<0.137	Ug/l	No
Monochlorobenzene	Jan. 4	<0.5	Ug/l	No
Paraquat	Jan. 4	<0.3	Ug/l	No
<b>Parathion</b>		N/A	Ug/l	No
Pentachlorophenol	Jan. 4	<0.3	Ug/l	No
Phorate	Jan. 4	<0.137	Ug/l	No
Picloram	Jan. 4	<0.0776	Ug/l	No
<b>Polychlorinated Biphenyls(PCB)</b>		N/A	Ug/l	No
Prometryne	Jan. 4	<0.0686	Ug/l	No
Simazine	Jan. 4	<0.206	Ug/l	No
THM (NOTE: show latest annual average)	Oct. 4	46.0	Ug/l	No
<b>Temephos</b>		N/A	Ug/l	No
Terbufos	Jan. 4	<0.137	Ug/l	No
Tetrachloroethylene	Jan. 4	<0.3	Ug/l	No
2,3,4,6-Tetrachlorophenol	Jan. 4	<0.3	Ug/l	No
Triallate	Jan. 4	<0.137	Ug/l	No
Trichloroethylene	Jan. 4	<0.2	Ug/l	No
2,4,6-Trichlorophenol	Jan. 4	<0.2	Ug/l	No
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>		N/A	Ug/l	No
Trifluralin	Jan. 4	<0.137	Ug/l	No
Vinyl Chloride	Jan. 4	<0.1	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 of Sample
None	n/a	n/a	n/a