



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220003065
Drinking-Water System Name:	Timmins Water Filtration Plant
Drinking-Water System Owner:	Corp. of the City of Timmins
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2022 to December 31, 2022

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [x] No []</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> <table border="1" style="width: 100%;"> <tr> <td> <ul style="list-style-type: none"> 1. Timmins Water Filtration Plant, 110 Feldman Road, Timmins, Ontario, P4N 7J8 2. Environmental Services & Public Utilities, 171 Iroquois Road, Timmins, Ontario, P4N 0C9 </td> </tr> </table>	<ul style="list-style-type: none"> 1. Timmins Water Filtration Plant, 110 Feldman Road, Timmins, Ontario, P4N 7J8 2. Environmental Services & Public Utilities, 171 Iroquois Road, Timmins, Ontario, P4N 0C9 	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; width: 100px; text-align: center; margin: 5px;">0</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; width: 100px; text-align: center; margin: 5px;">0</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
<ul style="list-style-type: none"> 1. Timmins Water Filtration Plant, 110 Feldman Road, Timmins, Ontario, P4N 7J8 2. Environmental Services & Public Utilities, 171 Iroquois Road, Timmins, Ontario, P4N 0C9 		

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

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 []



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

Surface raw water supplied from Mattagami River. The Timmins Water Filtration Plant (TWFP) employs chemically assisted filtration followed by pH adjustment with caustic soda. After primary disinfection with UV treatment and chlorine the water is stored in four (4) clearwell reservoirs and pumped to distribution system. The TWFP is a Class IV water treatment operation.

List all water treatment chemicals used over this reporting period

Liquefied chlorine gas, Sodium hypochlorite, caustic soda, cationic polymer, aluminum sulphate, anionic polymer, sodium bisulphite

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

• Relining of 250mm Mattagami River Crossing	\$ 402 368.00
• Relining of Watermain on Airport Road	\$ 2 529 114.16
• Replacement of Piping & Valves at TWFP	\$ 348 597.17
• Asbestos Removal on Pipe Insulation	\$ 59 901.86
• High Lift Pump #6 & 7 Engineering Design	\$ 18 970.00
• Low Lift Pump #1 Replacement	\$ 119 370.00
• Engineering Design for Generator for MacLean Reservoir	\$ 19 634.00
• Connecting Link Watermain Replacement	\$ 739 423.75
• Channel Repairs	\$ 59 901.00

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 (dd/mm/yy)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
21/03/2022	Haloacetic Acids (HAAs) AWQI No. 158032	81.1	µg/L RAA	Chlorine dose have been reduced at primary disinfection to reduce THM and HAA formed at process in Clearwells. Trim Chlorination is being used to top of levels to maintain residuals in the end points of the system. Trim Chlorination has also been lowered during lower temperature periods. The City is also collecting samples from the main and within locations where samples are taken in private facilities to determine source of THM and HAA.	28/03/2022
21/03/2022	Duty to report other observations: loss of water supply AWQI No. 158030	n/a	n/a	Precautionary Boil Water Advisory was issued to all customers in Porcupine due to the loss of pressure and loss of water for the area. Water supply was restored and water sampled at multiple locations 2 days in a row in the affected system. Precautionary Boil Water Advisory was then lifted on receipt of negative sample results.	24/03/2022
04/04/2022	Lead AWQI No. 158109	28.7	µg/L	Flushed hydrants and resampled AWQI location as well as an upstream and downstream location. Resample came back below ODWS however the downstream hydrant resulted in a separate AWQI for lead (AWQI No. 158147).	07/04/2022
07/04/2022	Lead AWQI No. 158147	10.8	µg/L	Flushed hydrants and resampled AWQI location as well as an upstream and downstream location, all results were below ODWS.	14/04/2022
01/06/2022	Free Chlorine Residual in Distribution AWQI No. 158549	0.00	ppm	Flushed and restored residuals. Sampled AWQI location as well as upstream and downstream. Bacti sample from AWQI location came back with 2 total coliform which resulted in a separate AWQI (158573)	03/06/2022
01/06/2022	Total Coliform AWQI No. 158573	2	CFU/100mL	Flushed and restored residuals. Sampled AWQI location as well as upstream and downstream. All results came back clear.	03/06/2022
08/06/2022	Free Chlorine Residual in	0.00	ppm	Flushed and restored residuals. Sampled AWQI location as well as	13/06/2022

	Distribution AWQI No. 158613			upstream and downstream. All results came back clear.	
30/07/2022	Total Coliform AWQI No. 159360	105	CFU/100mL	Flushing and re-sampling at the AWQI location and upstream (no downstream as it's an endpoint). The upstream location came back with 4 TC which resulted in a separate AWQI (159393).	04/08/2022
01/08/2022	Total Coliform AWQI No. 159393	4	CFU/100mL	Flushing and re-sampling at the AWQI location, upstream and downstream. All samples came back clear.	04/08/2022
25/10/2022	Free Chlorine Residual in Distribution AWQI No. 160436	0.00	ppm	Flushed and restored residuals. Sampled AWQI location as well as upstream and downstream. All results came back clear.	27/10/2022
17/11/2022	Duty to report other observations: loss of water supply AWQI No. 160729	n/a	n/a	Precautionary Boil Water Advisory was issued to all customers east of Bristol Road (Porcupine) due to the loss of pressure and loss of water for the area. Water supply was restored and water sampled at multiple locations 2 days in a row in the affected system. Precautionary Boil Water Advisory was then lifted on receipt of negative sample results.	24/11/2022

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	102	0-450	6-840	4	24-320
Treated	102	0-0	0-0	91	0-<10
Distribution	860	0-0	0-2	375	0-110

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 #)	Unit of Measure
Turbidity(System)	8760	0.07-1.99	ntu
Chlorine	8760	1.02-5.00	ppm
Fluoride (If the DWS provides fluoridation)	N/A	N/A	

***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.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

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	02/24/2022	<0.0006	mg/L	None
Arsenic	02/24/2022	0.0002	mg/L	None
Barium	02/24/2022	0.00557	mg/L	None
Boron	02/24/2022	0.005	mg/L	None
Cadmium	02/24/2022	<0.000003	mg/L	None
Chromium	02/24/2022	<0.00008	mg/L	None
*Lead				
Mercury	02/24/2022	<0.00001	mg/L	None
Selenium	02/24/2022	<0.00004	mg/L	None
Sodium	02/24/2022	16.8	mg/L	None
Uranium	02/24/2022	0.000003	mg/L	None
Fluoride	02/24/2022	<0.06	mg/L	None
Nitrate	02/24/2022	0.112	mg/L	None
	06/13/2022	0.074		
	08/23/2022	0.089		
	11/22/2022	0.052		
Nitrite	02/24/2022	<0.003	mg/L	None
	06/13/2022	<0.003		
	08/23/2022	<0.003		
	11/22/2022	<0.003		

*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 #)	Unit of Measure	Number of Exceedances
Plumbing	0	n/a		n/a
Distribution	15	0.06-27.8	µg/L	2

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
1,1-Dichloroethylene	02/24/2022	<0.00033	mg/l	None
1,2-Dichlorobenzene	02/24/2022	<0.00041	mg/l	None
1,2-Dichloroethane	02/24/2022	<0.00035	mg/l	None
1,4-Dichlorobenzene	02/24/2022	<0.00036	mg/l	None
2,3,4,6-Tetrachlorophenol	02/24/2022	<0.00020	mg/l	None
2,4,6-Trichlorophenol	02/24/2022	<0.00025	mg/l	None
2-4 Dichlorophenol	02/24/2022	<0.00015	mg/l	None
2,4-Dichlorophenoxy acetic acid (2,4-D)	02/24/2022	<0.00019	mg/l	None
Alachlor	02/24/2022	<0.00002	mg/l	None
Atrazine + N-dealkylated metabolites	02/24/2022	<0.00001	mg/l	None
Azinphos-methyl	02/24/2022	<0.00005	mg/l	None
Benzene	02/24/2022	<0.00032	mg/l	None
Benzo(a)pyrene	02/24/2022	<0.000004	mg/l	None
Bromoxynil	02/24/2022	<0.00033	mg/l	None
Carbaryl	02/24/2022	<0.00005	mg/l	None
Carbofuran	02/24/2022	<0.00001	mg/l	None
Carbon Tetrachloride	02/24/2022	<0.00017	mg/l	None
Chlorobenzene	02/24/2022	<0.0003	mg/l	None
Chlorpyrifos	02/24/2022	<0.00002	mg/l	None
Diazinon	02/24/2022	<0.00002	mg/l	None
Dicamba	02/24/2022	<0.00020	mg/l	None
Dichloromethane	02/24/2022	<0.00035	mg/l	None
Diclofop-methyl	02/24/2022	<0.00040	mg/l	None
Dimethoate	02/24/2022	<0.00006	mg/l	None
Diquat	02/24/2022	<0.001	mg/l	None
Diuron	02/24/2022	<0.00003	mg/l	None
Glyphosate	02/24/2022	<0.001	mg/l	None
Malathion	02/24/2022	<0.00002	mg/l	None
Metolachlor	02/24/2022	<0.00001	mg/l	None
Metribuzin	02/24/2022	<0.00002	mg/l	None
Paraquat	02/24/2022	<0.001	mg/l	None
Pentachlorophenol /PCP	02/24/2022	<0.00015	mg/l	None
Phorate	02/24/2022	<0.00001	mg/l	None
Picloram	02/24/2022	<0.001	mg/l	None
Polychlorinated Biphenyls(PCB)	02/24/2022	<0.00004	mg/l	None
Prometryne	02/24/2022	<0.00003	mg/l	None
Simazine	02/24/2022	<0.00001	mg/l	None
Terbufos	02/24/2022	<0.00001	mg/l	None
Tetrachloroethylene	02/24/2022	<0.00035	mg/l	None
Triallate	02/24/2022	<0.00001	mg/l	None
Trichloroethylene	02/24/2022	<0.00044	mg/l	None
Trifluralin	02/24/2022	<0.00002	mg/l	None
Vinyl Chloride	02/24/2022	<0.00017	mg/l	None

THM- SUMMARY TABLE

	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Quarterly Average	74.2	101.2	129.9	77.9
System THM – Entering Distribution	53	62	76	47
<i>Maximum Acceptable Concentration - THM</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
4 Quarter Average THM RAA (100 MAC)	98.8	98.1	97.7	95.8
*All units as µg/L (ppb)				

HAA- SUMMARY TABLE

	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Quarterly Average	58.6	75.6	83.3	68.2
System HAA – Entering Distribution	40.9	37.2	53.3	42.7
<i>Maximum Acceptable Concentration – HAA</i>	<i>80</i>	<i>80</i>	<i>80</i>	<i>80</i>
4 Quarter Average HAA RAA (80 MAC)	81.1	76.0	73.4	71.5
*All units as µg/L (ppb)				

Composite Suspended Solids Discharged to River

Month	Value mg/l (25 mg/l MAC)	RAA (Running Annual Average)
January	18	18.85
February	12	18.15
March	14	17.92
April	10	17.31
May	14	11.54
June	13	11.54
July	20	12.23
August	7	12.23
September	8	12.15
October	8	12.15
November	12	12.31
December	13	12.69



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