



**ANNUAL REPORT 2021**

<b>Drinking-Water System Number:</b>	#220000585
<b>Drinking-Water System Name:</b>	Parry Sound Drinking Water Treatment Plant
<b>Drinking-Water System Owner:</b>	Corporation of the Town of Parry Sound
<b>Drinking-Water System Category:</b>	Large Municipal Residential: Drinking Water System
<b>Period being reported:</b>	2021: January 1, 2021 to December 31, 2021

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [ x ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ x ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>Town of Parry Sound              Tony Agnello Water Treatment Plant              10 Salt Dock Road              Parry Sound, ON P2A 0E1              Phone: 705-746-5641</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</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 their drinking water from your system:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
McDougall - Nobel Distribution, LMR-DWS	260079131

**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 its drinking water? Yes [ X ] 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

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### Describe your Drinking-Water System

The Town of Parry Sound's Water Treatment System, which is classified under the Safe Drinking Water Act (SDWA) and Ontario Reg, 170/03 — Drinking Water Systems regulation, is categorized as a Large Municipal Residential Drinking Water System. The detailed description of the system is provided in Ministry of Environment, Conservation and Parks, Municipal Drinking Water Licence No 144-101 issued on July 26, 2021. In general, the Parry Sound Large Municipal Residential Drinking Water System can be described as follows:

- \* Gravity fed water intake piping in the Big Sound of Georgian Bay that includes an intake diffuser structure and screens.

- \* The treatment plant is a vacuum driven hollow tube ultrafiltration membrane system, which consists of the following major components:

- a low lift pumping station
- twin raw water feed tanks containing 240 membrane elements packaged into 12 cassettes, (six in each of two trains)
- membrane filtration facilities consisting of the membranes themselves as well as air ejectors, backpulse tanks and associated valves and controls
- a membrane integrity testing system (MIT)
- a membrane cleaning system
- chemical feed systems including: sodium hypochlorite (chlorination), sodium thiosulphate (dechlorination), poly-aluminum chloride (coagulant), polymer feed system (related to the waste side rather than the drinking water side)
- chlorine contact tank
- clearwater reservoir
- high lift pumps
- generator room (providing backup power in the event of a hydro outage)

- \* Distribution system serving the Town of Parry Sound consists of approximately 45 km of pipe with diameters ranging from 25mm to 400mm in size and pipe material consisting of cast iron, ductile iron, asbestos cement, PVC and HDPE.

- \* Storage facilities at North Sector, Parry Sound Drive (McDougall Township) and Bowes Street which both have rechlorination capabilities.

- \* Booster pumping facilities at one location within the distribution system.

The process at the treatment plant employs membrane ultra filtration, augmented by colour removal capabilities for periods when the raw water demonstrates a colour removal requirement (usually in conjunction with spring runoff from the Seguin River and/or Georgian Bay thermal flips), followed by primary and secondary chlorine disinfection prior to delivery to the municipal distribution system.

- \* The Parry Sound LMR-DWS provides treated water to the McDougall - Nobel distribution system from a point at the base of the North Sector Water Tower commencing in December 2006.



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

The following water treatment chemicals were used with respect to the Parry Sound Water Treatment Plant during the period January 1, 2021 to December 31, 2021.

- Sodium Hypochlorite (for finished water disinfection and membrane cleaning)
- Sodium Thiosulphate (for dechlorination)
- Polyaluminum chloride (coagulant for raw water colour removal)
- Citric acid (for membrane cleaning)
- Sodium Hydroxide (for membrane cleaning)

For Waste Stream Treatment not included in drinking water treatment

- Polymer (to induce settling of reject water)

**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**

N/A

**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
N/A					

**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 to 2	0 to 18	52	0 to 2000
<b>Treated</b>	52	0 to 0	0 to 0	52	0 to 600
<b>Distribution</b>	200	0 to 0	0 to 0	200	0 to 25



**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	8760	0.011 to 0.040	NTU
Chlorine	8760	1.170 to 1.399	mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A	mg/L

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

<b>**High readings due to calibration of analyzer. This is not a reportable incident</b>
<b>*High readings due to malfunctioning analyzer. This is not a reportable incident</b>
<b>NOTE: Record the unit of measure if it is not milligrams per liter.</b>

**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
N/A				

**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	21/06/14	0.09<MDL	ug/L	No
Arsenic	21/06/14	0.2	ug/L	No
Barium	21/06/14	13.4	ug/L	No
Boron	21/06/14	11	ug/L	No
Cadmium	21/06/14	0.004	ug/L	No
Chromium	21/06/14	0.29	ug/L	No
*Lead	N/A			
Mercury	21/06/14	0.01<MDL	ug/L	No
Selenium	21/06/14	0.04	ug/L	No
Sodium	N/A			
Uranium	21/06/14	0.016	ug/L	No
Fluoride	N/A			
Nitrite	21/06/07	0.003<MDL	mg/L	No
Nitrate	21/06/07	0.232	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 #)	Unit of Measure	Number of Exceedances
Plumbing	N/A		ug/L	
Distribution	3	0.01<MDL – 0.36	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	21/06/14	0.02<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	21/06/14	0.01<MDL	ug/L	No
Azinphos-methyl	21/06/14	0.05<MDL	ug/L	No
Benzene	21/06/14	0.32<MDL	ug/L	No
Benzo(a)pyrene	21/06/14	0.004<MDL	ug/L	No
Bromoxynil	21/06/14	0.33<MDL	ug/L	No
Carbaryl	21/06/14	0.05<MDL	ug/L	No
Carbofuran	21/06/14	0.01<MDL	ug/L	No
Carbon Tetrachloride	21/06/14	0.17<MDL	ug/L	No
Chlorpyrifos	21/06/14	0.02<MDL	ug/L	No
Diazinon	21/06/14	0.02<MDL	ug/L	No
Dicamba	21/06/14	0.20<MDL	ug/L	No
1,2-Dichlorobenzene	21/06/14	0.41<MDL	ug/L	No
1,4-Dichlorobenzene	21/06/14	0.36<MDL	ug/L	No
1,2-Dichloroethane	21/06/14	0.35<MDL	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	21/06/14	0.33<MDL	ug/L	No
Dichloromethane	21/06/14	0.35<MDL	ug/L	No
2-4 Dichlorophenol	21/06/14	0.15<MDL	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	21/06/14	0.19<MDL	ug/L	No
Diclofop-methyl	21/06/14	0.40<MDL	ug/L	No
Dimethoate	21/06/14	0.06<MDL	ug/L	No
Diquat	21/06/14	1<MDL	ug/L	No
Diuron	21/06/14	0.03<MDL	ug/L	No
Glyphosate	21/06/14	1<MDL	ug/L	No
Malathion	21/06/14	0.02<MDL	ug/L	No
Metolachlor	21/06/14	0.01<MDL	ug/L	No
Metribuzin	21/06/14	0.02<MDL	ug/L	No
Monochlorobenzene	21/06/14	0.3<MDL	ug/L	No
Paraquat	21/06/14	1<MDL	ug/L	No
Pentachlorophenol	21/06/14	0.15<MDL	ug/L	No
Phorate	21/06/14	0.01<MDL	ug/L	No
Picloram	21/06/14	1<MDL	ug/L	No
Polychlorinated Biphenyls (PCB)	21/06/14	0.04<MDL	ug/L	No
Prometryne	21/06/14	0.03<MDL	ug/L	No



Simazine	21/06/14	0.01<MDL	ug/L	No
THM (NOTE: show latest annual average)	21/12/06	59	ug/L	No
Terbufos	21/06/14	0.01<MDL	ug/L	No
Tetrachloroethylene	21/06/14	0.35<MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	21/06/14	0.20<MDL	ug/L	No
Triallate	21/06/14	0.01<MDL	ug/L	No
Trichloroethylene	21/06/14	0.44<MDL	ug/L	No
2,4,6-Trichlorophenol	21/06/14	0.25<MDL	ug/L	No
Trifluralin	21/06/14	0.02<MDL	ug/L	No
Vinyl Chloride	21/06/14	0.17<MDL	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
N/A			

Date Completed: February 28, 2022.