



ANNUAL REPORT 2022

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| Drinking-Water System Number: | #220000585 |
| Drinking-Water System Name: | Parry Sound Drinking Water Treatment Plant |
| Drinking-Water System Owner: | Corporation of the Town of Parry Sound |
| Drinking-Water System Category: | Large Municipal Residential: Drinking Water System |
| Period being reported: | 2022: January 1, 2022 to December 31, 2022 |

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| <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 [] 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>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><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</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; padding: 2px; width: fit-content;">N/A</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> |
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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:

| Drinking Water System Name | Drinking Water System Number |
|---|-------------------------------------|
| 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

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, copper, poly, 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, 2022 to December 31, 2022.

- 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.

SCADA upgrades \$83,899.18

Water meter installations \$125,271.95

Water Treatment Plant pump inspections and maintenance \$51,734.68

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 |
|--------------------------------|-------------------------------|--------------------------------------|-----------------|---|---|
| October 17/2022 Glen Ave. | Watermain break Category 2 | Observation of improper disinfection | | AWQI #160348 October 17/2022. Watermain break repaired and flushed, chlorine residuals and microbiological samples taken, boil water advisory for #8, 10 Glen Ave. | October 21/2022 microbiological sample results cleared from licenced laboratory, boil water advisory lifted. |
| October 26/2022 Sunset Ave. | Watermain break Category 2 | Observation of improper disinfection | | AWQI #160452 October 26/2022. Watermain break repaired and flushed, chlorine residuals and microbiological samples taken, boil water advisory for seven residences. | October 31/2022 microbiological sample results cleared from licenced laboratory, boil water advisory lifted. |



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 | 50 | 0 to 7 or NDOGT | 0 to 24 or NDOGT | 52 or NDOGT | 0 to 2000 |
| Treated | 52 | 0 to 0 | 0 to 0 | 52 | 0 to 3 |
| Distribution | 199 | 0 to 0 | 0 to 0 | 198 | 0 to 25 or NDOGT |

***Note:** NDOGT (No Data Overgrown with Target). A NDOGT result indicates that the test has a large amount of bacteria present and Total Coliform, E.Coli, or Heterotrophic Plate Count (HPC) are visible to the analyst, but it can't be determined exactly how much is present.

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 | 0.012 to 0.087 | NTU |
| Chlorine | 8760 | 1.477 to 1.874 | 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.*

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

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 Value | Unit of Measure |
|---|--|---------------------|---|-----------------|
| Municipal Drinking Water Licence (MDWL) | Microcystin on raw and treated water | June 1 – October 31 | 0.1 <MDL | Ug/L |
| Municipal Drinking Water Licence (MDWL) | Total suspended solids on effluent discharge water. | Monthly | Calculated as a running annual average based on previous 12 months. 12.5 | mg/L |
| Municipal Drinking Water Licence (MDWL) | Total chlorine residual on effluent discharge water. | Monthly | Calculated as a running annual average based on previous 12 months. 0.05 | 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 | 22/12/12 | 0.09<MDL | ug/L | No |
| Arsenic | 22/12/12 | 0.2<MDL | ug/L | No |
| Barium | 22/12/12 | 9.79 | ug/L | No |
| Boron | 22/12/12 | 8 | ug/L | No |
| Cadmium | 22/12/12 | 0.004 | ug/L | No |
| Chromium | 22/12/12 | 0.15 | ug/L | No |
| *Lead | N/A | | | |
| Mercury | 22/12/12 | 0.01<MDL | ug/L | No |
| Selenium | 22/12/12 | 0.06 | ug/L | No |
| Sodium | N/A | | | |
| Uranium | 22/12/12 | 0.015 | ug/L | No |
| Fluoride | N/A | | | |
| Nitrite | 22/12/12 | 0.003<MDL | mg/L | No |
| Nitrate | 22/12/12 | 0.218 | 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 | N/A | | ug/L | |

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 | 22/12/12 | 0.02<MDL | ug/L | No |
| Atrazine + N-dealkylated metabolites | 22/12/12 | 0.01<MDL | ug/L | No |
| Azinphos-methyl | 22/12/12 | 0.05<MDL | ug/L | No |
| Benzene | 22/12/12 | 0.32<MDL | ug/L | No |
| Benzo(a)pyrene | 22/12/12 | 0.004<MDL | ug/L | No |
| Bromoxynil | 22/12/12 | 0.33<MDL | ug/L | No |
| Carbaryl | 22/12/12 | 0.05<MDL | ug/L | No |
| Carbofuran | 22/12/12 | 0.01<MDL | ug/L | No |
| Carbon Tetrachloride | 22/12/12 | 0.17<MDL | ug/L | No |
| Chlorpyrifos | 22/12/12 | 0.02<MDL | ug/L | No |
| Diazinon | 22/12/12 | 0.02<MDL | ug/L | No |
| Dicamba | 22/12/12 | 0.20<MDL | ug/L | No |
| 1,2-Dichlorobenzene | 22/12/12 | 0.41<MDL | ug/L | No |
| 1,4-Dichlorobenzene | 22/12/12 | 0.36<MDL | ug/L | No |
| 1,2-Dichloroethane | 22/12/12 | 0.35<MDL | ug/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | 22/12/12 | 0.33<MDL | ug/L | No |
| Dichloromethane | 22/12/12 | 0.35<MDL | ug/L | No |
| 2-4 Dichlorophenol | 22/12/12 | 0.15<MDL | ug/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | 22/12/12 | 0.19<MDL | ug/L | No |
| Diclofop-methyl | 22/12/12 | 0.40<MDL | ug/L | No |
| Dimethoate | 22/12/12 | 0.06<MDL | ug/L | No |
| Diquat | 22/12/12 | 1<MDL | ug/L | No |
| Diuron | 22/12/12 | 0.03<MDL | ug/L | No |
| Glyphosate | 22/12/12 | 1<MDL | ug/L | No |
| HAA (NOTE: show latest annual average) | 22/12/12 | 51.6 | ug/L | No |
| Malathion | 22/12/12 | 0.02<MDL | ug/L | No |
| Metolachlor | 22/12/12 | 0.01<MDL | ug/L | No |
| Metribuzin | 22/12/12 | 0.02<MDL | ug/L | No |
| Monochlorobenzene | 22/12/12 | 0.3<MDL | ug/L | No |
| Paraquat | 22/12/12 | 1<MDL | ug/L | No |
| Pentachlorophenol | 22/12/12 | 0.15<MDL | ug/L | No |
| Phorate | 22/12/12 | 0.01<MDL | ug/L | No |
| Picloram | 22/12/12 | 1<MDL | ug/L | No |



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|---|----------|----------|------|----|
| Polychlorinated Biphenyls (PCB) | 22/12/12 | 0.04<MDL | ug/L | No |
| Prometryne | 22/12/12 | 0.03<MDL | ug/L | No |
| Simazine | 22/12/12 | 0.01<MDL | ug/L | No |
| Terbufos | 22/12/12 | 0.01<MDL | ug/L | No |
| Tetrachloroethylene | 22/12/12 | 0.35<MDL | ug/L | No |
| 2,3,4,6-Tetrachlorophenol | 22/12/12 | 0.20<MDL | ug/L | No |
| THMs (NOTE: show latest annual average) | 22/12/12 | 64 | ug/L | No |
| Triallate | 22/12/12 | 0.01<MDL | ug/L | No |
| Trichloroethylene | 22/12/12 | 0.44<MDL | ug/L | No |
| 2,4,6-Trichlorophenol | 22/12/12 | 0.25<MDL | ug/L | No |
| Trifluralin | 22/12/12 | 0.02<MDL | ug/L | No |
| Vinyl Chloride | 22/12/12 | 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 | | | |
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Date Completed: February 16, 2023.