



**ONTARIO CLEAN WATER AGENCY**  
**AGENCE ONTARIENNE DES EAUX**

**LION'S HEAD**  
**DRINKING WATER SYSTEM**

Large Municipal Residential

**SCHEDULE 22**  
**SUMMARY REPORT**

**For the period of**  
**JANUARY 1, 2022 TO DECEMBER 31, 2022**

Prepared by the Ontario Clean Water Agency  
For The Corporation of the Township of Northern Bruce Peninsula

This report was prepared in accordance with the requirements of [O.Reg 170/03, Schedule 22, Summary Reports for Municipalities](#) for the following system and reporting period:

<b>Drinking-Water System Number:</b>	220002672
<b>Drinking-Water System Name:</b>	Lion's Head Drinking Water System
<b>Drinking-Water System Owner:</b>	The Municipality of Northern Bruce Peninsula
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2022 – December 31, 2022

## 1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on November 2, 2022 for the period covering December 21, 2021 to November 2, 2022. On January 17, 2023 the Inspection Report was issued and, as of the issue date of this report, an Inspection Summary Rating Record (IRR) has not yet been received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

**Table 1. Non-Compliances and Corrective Actions noted in the 2021/2022 MECP Inspection Report**

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

**Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period**

Incident	Duration	Corrective Actions
Microbiological samples for the week of May 24-27, 2022 arrived late at the laboratory due to a courier issue. The re-samples collected on May 26, 2022 were past the 5-10 days specified in O. Reg 170/03.	n/a	<ul style="list-style-type: none"> <li>- Re-samples were collected on May 26, 2022 and sent to the laboratory</li> <li>- The laboratory followed up with Purolator.</li> <li>- The sampling schedule for the week of May 30-June 3 was adjusted to ensure samples were taken 5 to 10 days (as required by regulations) from the samples collected May 26.</li> </ul>

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Lion's Head Drinking Water System Annual Report (Section 11).

## 2. Assessment of Flowrates and Quantity of Water Supplied

The following tables summarize the quantities and flow rates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flow rates approved in the system's approval, DWWP or MDWL.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary, calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits.

### 2.1 Treated Water

<b>Municipal Drinking Water License (MDWL):</b>	250-101 (Issue Number: 4)
<b>Allowable Rated Capacity:</b>	1,351 m <sup>3</sup> /day
<b>Allowable Flowrate into Treatment System:</b>	N/A

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

**Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity Total Volume for 2022**

Timeframe	Treated Water Flow				
	Average Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	Percent of Rated Capacity	Total Volume (m <sup>3</sup> )
January	496	36.7%	658	48.7%	15,379
February	485	35.9%	498	36.9%	13,591
March	489	36.2%	516	38.2%	15,163
April	497	36.8%	607	44.9%	14,924
May	492	36.4%	616	45.6%	15,264
June	497	36.8%	667	49.4%	14,917
July	515	38.1%	556	41.2%	15,979
August	510	37.7%	552	40.9%	15,800
September	522	38.6%	580	42.9%	15,673
October	435	32.2%	471	34.9%	13,470
November	430	31.8%	453	33.5%	12,911
December	442	32.7%	550	40.7%	13,697
<b>2022</b>	<b>484</b>	<b>35.8%</b>	<b>667</b>	<b>49.4%</b>	<b>176,768</b>

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

**Table 4. Treated Water Annual and Monthly Average and Maximum Flowrates for 2022**

Timeframe	Treated Water Flowrate	
	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	5.74	35.58
February	5.62	34.04
March	5.67	17.45
April	5.76	14.36
May	5.70	41.36
June	5.75	48.01
July	6.14	18.76
August	6.07	18.42
September	6.05	40.92
October	5.03	37.52
November	4.98	18.29
December	5.11	41.05
<b>2022</b>	<b>5.64</b>	<b>48.01</b>

The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into a treatment subsystem. A summary of flowrates of water that flows into the treatment system can be found in Table 6.

## 2.2 Raw Water

<b>Permit to Take Water Number:</b>	0002-BDCRL5
<b>Allowable Maximum Raw Water Volume – Isthmus Bay:</b>	1,831.5 m <sup>3</sup> /day
<b>Allowable Maximum Raw Water Flowrate – Isthmus Bay:</b>	1,272 L/min

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit.

**Table 5. Raw Water (Isthmus Bay) Monthly Average, Maximum Flow and Total Volume for 2022**

Timeframe	Raw Water Flow – Isthmus Bay				
	Average Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Maximum Flow (m <sup>3</sup> /day)	Percent of Allowable Volume	Total Volume (m <sup>3</sup> )
January	519	28.3%	769	42.0%	16,084
February	506	27.6%	528	28.8%	14,176
March	527	28.8%	607	33.1%	16,326
April	534	29.1%	715	39.1%	16,007
May	526	28.7%	706	38.6%	16,304
June	538	29.4%	690	37.7%	16,154
July	573	31.3%	639	34.9%	17,757
August	571	31.2%	642	35.1%	17,699
September	569	31.1%	668	36.5%	17,078
October	456	24.9%	500	27.3%	14,143
November	455	24.8%	502	27.4%	13,651
December	464	25.3%	529	28.9%	14,378
<b>2022</b>	<b>520</b>	<b>28.4%</b>	<b>769</b>	<b>42.0%</b>	<b>189,759</b>

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume.

**Table 6. Raw Water (Isthmus Bay) Annual and Monthly Average and Maximum Flowrates for 2022**

Timeframe	Raw Water (Isthmus Bay) Flowrate	
	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	6.12	20.76
February	5.97	20.58
March	6.22	20.42
April	6.36	20.53
May	6.20	20.58
June	6.35	20.81
July	6.76	20.16
August	6.73	19.48
September	6.66	14.61
October	5.38	14.32
November	5.31	14.62
December	5.47	17.58
<b>2022</b>	<b>6.13</b>	<b>20.76</b>

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate.