

**Municipality of North Perth**  
**2018 Summary Report**  
**For the**  
**Atwood Drinking Water System**

DWS Name: Atwood Drinking Water System

DWS #: 260065260

Category: Large Municipal Residential

Reporting Year January 1 – December 31, 2018

Date Prepared: January 25<sup>th</sup>, 2019

On June 1, 2003, the Safe Drinking Water Act and supporting regulations came into force in the Province of Ontario. As part of the requirements of Section 22-2 of O. Reg. 170/03, Drinking Water Systems Regulation of the *Safe Drinking Water Act, 2002*, a Summary Report must be given to members of the municipal council by March 31<sup>st</sup> of each year. According to the regulations, the Summary Report must:

*“(a) list the requirements of the Act, the regulations, the system’s approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and*

*(b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.*

*The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:*

*1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.*

*2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence.”*

This report was prepared to meet the above requirements.

In operating water systems, the Municipality of North Perth makes every effort to ensure that it complies with all applicable laws, regulations, operating procedures and generally accepted industry practices. Best efforts have been made to comply with all of the terms and conditions of the Safe Drinking Water Act, its regulations, approvals and orders.

We have conducted a search and review of the records relating to the operation of the system and to the best of our knowledge, the following report truthfully and accurately reflects any and all matters of non-compliance regarding the ownership and operation of the Facility during the reporting period.

## **A. System Description**

The Atwood Drinking Water System receives raw water from Well 1 (Danbrook) located adjacent to the pumphouse and Well 2 (Smith) located at 102 Parkview Crescent. All treatment of raw water from both sources takes place at the Atwood pumphouse where Sodium Hypochlorite is added for disinfection and Sodium Silicate is added for iron sequestering. The treated water is discharged to a reservoir. Three high lift pumps deliver the treated water from the reservoir to the distribution system via five hydropneumatic pressure tanks. The hydropneumatic tanks reduce the cycling of the high lift pumps and maintain pressure within the distribution system.

## B. Non-Compliance with Legislations, Regulations, Approvals & Orders

The Atwood Drinking Water System is governed by, and must operate in accordance with, the following Acts and Regulations:

- Safe Drinking Water Act 2002;
  - O. Reg 128/04 – Certification of Drinking Water System Operators
  - O. Reg 170/03 – Drinking Water Systems
  - O. Reg 169/03 – Ontario Drinking Water Quality Standards
- Environmental Protection Act, where applicable;
- Clean Water Act, where applicable;
- Municipal Drinking Water Licence - 091-101;
- Drinking Water Works Permit - 091-201;
- Permit to Take Water – 1771-9UVR3Y

During this period, the Facility was operated in full compliance with the Act, the regulations and the Facility's licence and permit, save and except for the following:

<b>Requirement</b>	<b>Duration of Failure</b>	<b>Measures to Correct the Failure</b>
There was not sufficient monitoring of flow as required by the MDWL or DWWP.	Approximately 4 weeks.	After annual meter calibration, it was found that the distribution meter was not reading correctly. Contractor attempted to recalibrate however, a part was required to perform the calibration. The part was incorrectly ordered by the contractor, which resulted in the extended time that the meter was out of calibration. The Ministry of the Environment, Conservation and Parks (MECP) was made aware to the issue when the need for recalibration was first noted, however, the MECP issued the non-compliance.

## C. System Capability

### Comparison of Flow Rates

Well 1 – Danbrook Well						
Month	Average Flow (m <sup>3</sup> /d)	Maximum Flow (m <sup>3</sup> /d)	Total Monthly Flow (m <sup>3</sup> )	Maximum Flow Rate (L/min)	System Capacity	Approved Flow Rate
January	27.37	33.28	848.34	177.13	326.88 m <sup>3</sup> /day	227 L/min
February	28.44	37.83	796.34	174.09		
March	29.84	49.63	924.98	177.91		
April	37.05	71.17	1111.58	177.16		
May	29.82	70.54	924.33	172.69		
June	35.38	56.52	1061.52	163.26		
July	34.94	49.70	1083.03	160.54		
August	30.34	53.69	940.48	154.91		
September	33.15	52.36	994.61	147.52		
October	31.90	63.68	988.93	147.56		
November	29.89	40.16	896.67	147.99		
December	30.23	39.52	937.10	154.69		
Average	31.53		958.99	162.95		
Maximum		71.17	1111.58	177.91		
% of Capacity	9.65	21.77				

<b>Well 2 – Smith Well</b>						
<b>Month</b>	<b>Average Flow (m<sup>3</sup>/d)</b>	<b>Maximum Flow (m<sup>3</sup>/d)</b>	<b>Total Monthly Flow (m<sup>3</sup>)</b>	<b>Maximum Flow Rate (L/min)</b>	<b>System Capacity</b>	<b>Approved Flow Rate</b>
January	30.75	49.64	953.13	159.72	262.08 m <sup>3</sup> /day	182 L/min
February	27.32	37.75	764.90	148.07		
March	25.77	33.16	798.89	148.25		
April	21.40	32.76	642.05	157.56		
May	33.20	50.77	1029.09	159.34		
June	39.54	79.50	1186.17	161.24		
July	32.33	48.55	1002.25	160.64		
August	29.80	38.98	923.90	159.83		
September	22.36	33.96	670.86	147.89		
October	25.15	33.83	779.66	150.86		
November	27.25	36.44	817.37	148.28		
December	30.72	43.26	952.31	148.14		
Average	28.80		876.72	154.15		
Maximum		79.50	1186.17	177.13		
% of Capacity	10.99	30.33				

<b>ATWOOD WELL SUPPLY – ALL WELLS COMBINED</b>				
<b>Month</b>	<b>Average Flow(m<sup>3</sup>/day)</b>	<b>Maximum Flow(m<sup>3</sup>/day)</b>	<b>System Capacity</b>	<b>Approved Flow Rate</b>
January	58.11	71.63	588.96 m <sup>3</sup> /day	Well 1: 227 L/min Well 2: 182 L/min
February	55.76	66.82		
March	55.61	70.71		
April	58.45	84.00		
May	63.01	82.98		
June	74.92	103.03		
July	67.27	93.53		
August	60.14	84.23		
September	55.51	72.07		
October	57.05	80.38		
November	57.13	71.20		
December	60.95	74.13		
Average	60.33			
Maximum		103.03		
% of Capacity	10.24	17.49		