

**STAFF REPORT:      ENGINEERING AND PUBLIC WORKS DEPARTMENT**

**REPORT TO:**                    Infrastructure and Recreation  
   Committee

**MEETING DATE:**            March 19, 2013

**REPORT NO.:**                 EPW.13.026

**SUBJECT:**                     2012 Water Summary Report

**PREPARED BY:**             Meg Boyd, Compliance & Efficiency  
   Coordinator

**A.      Recommendations**

THAT Council receives Report EPW.13.026 entitled “2012 Water Summary Report” for their information.

**B.      Background**

The delivery of potable water in Ontario is regulated by the Ministry of the Environment under the *Safe Drinking Water Act*.

Ontario Regulation 170/03 Schedule 22 requires the Owner of a drinking water system to prepare a Summary Report no later than March 31<sup>st</sup> of each calendar year that summarizes the following:

- 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 a summary of the quantities and flow rates of the water supplied during the 2012 period, including monthly average and maximum daily flows as well as daily instantaneous peak flow rates. A comparison of the summary to the rated capacity and flow rates approved in the system’s approval must also be documented.

The Town continues to successfully operate its Water System in accordance with all Provincial Legislative requirements.

A copy of this Report (Attachment # 1) is required to be presented and accepted by Municipal Council no later than March 31<sup>st</sup> of each calendar year.

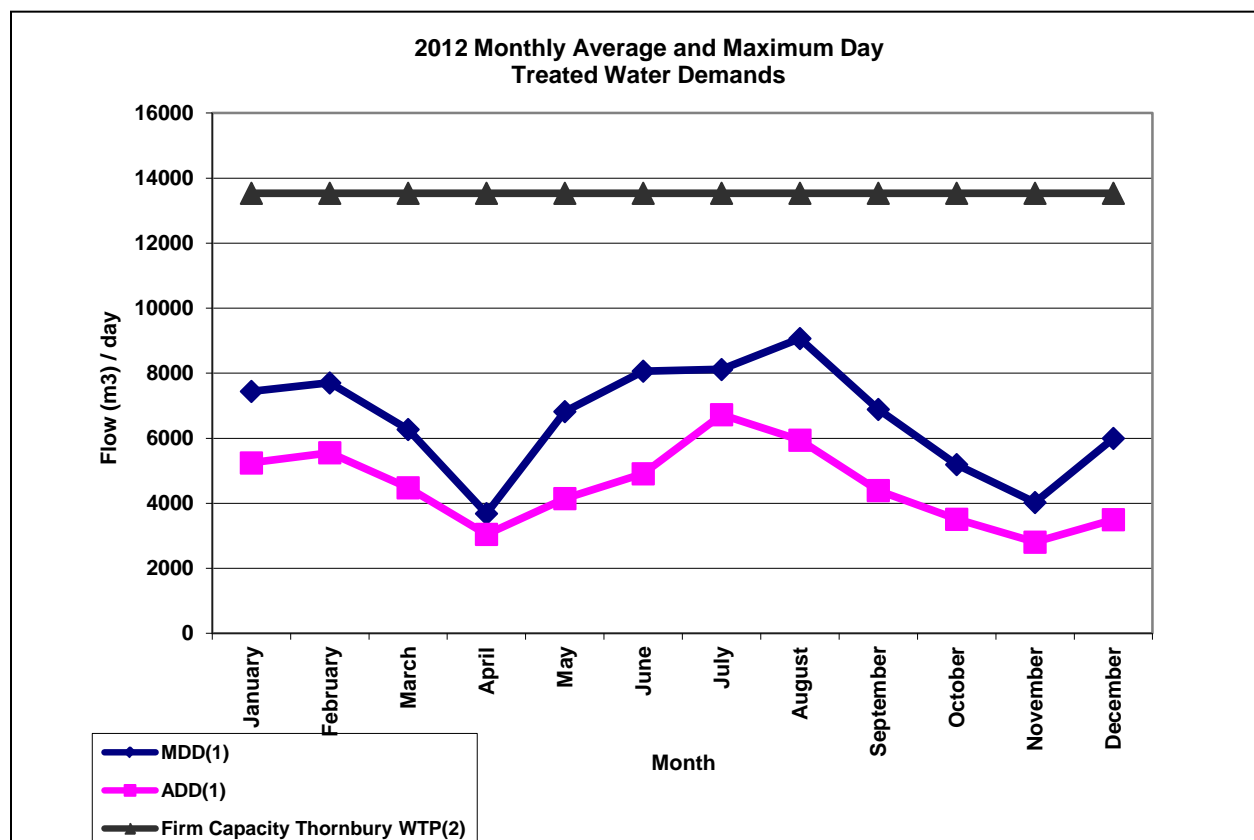
This Report is specific to the Thornbury Water Treatment Plant (WTP) located at 230 Peel Street, its associated distribution system in the Lora Bay, Clarksburg, Thornbury, Camperdown and Craigeith Service Areas and the supplemental supply received from The Town of Collingwood.

Until November 2010, the system operated under the Certificate of Approval # 0043-7YAN6W, issued March 24, 2010. Through the implementation of the Municipal Drinking Water Licencing Program, the authority to establish or alter a system is provided through a Drinking Water Works Permit and the authority to use or operate the system is provided through a Drinking Water Licence. On November 10, 2010 the Town was issued Permit Number 111-201 and Licence Number 111-101. The newly introduced Permit, together with the Drinking Water Works Licence replaces the previously issued Certificate of Approval.

The Town also receives a supplemental supply of water from the Town of Collingwood to assist with meeting water demands and providing redundancy. The water purchase agreement signed by the Town and the Town of Collingwood states the Town will purchase on a take or pay basis 4,000 cubic meters of water on average for each day until January 2015 or other arrangements are made. The Town may then purchase 8,000 cubic meters of water if the purchase is mutually agreed upon by both parties.

The following graph reflects the total treated water flows from the Thornbury Water Treatment Plant and the supplemental supply received from the Town of Collingwood. Presently, the Town has an adequate supply to meet maximum daily demands through the year.

### Summary of Treated Flows



(1) The above graph reflects the total treated water flows from the Thornbury WTP and the supplemental supply received from the Town of Collingwood

(2) Firm Capacity does not include Collingwood Supply of 4,000 m³/day

The Thornbury WTP and its associated distribution system continue to operate within Ministry of the Environment Guidelines and Legislation. The Town received a 100% inspection rating for the 2012-2013 reporting period. All of the requirements listed in Schedule 22 have been met and are detailed in the appending summary report.

### **C. The Blue Mountains' Strategic Plan**

The acceptance of this Report by Council furthers the Town Strategic Plan Goal # 6 "Providing a Strong, Well-Managed Municipal Government."

### **D. Environmental Impacts**

None

### **E. Financial Impact**

None

### **F. In Consultation With**

None

### **G. Attached**

1. 2012 Water Summary Report

Respectfully submitted,

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# *2012 Water Summary Report*

*The Blue Mountains  
Water Group*

*Waterworks Number: 220001762*

*Reporting Period: January 1, 2012 – December 31, 2012*



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## **WATER SUMMARY REPORT**

### **THORNBURY WATER TREATMENT PLANT WATERWORKS NUMBER: 220001762**

#### ***Executive Summary***

This report has been prepared as required by Ontario Regulation 170/03 – Schedule 22 of the *Safe Drinking Water Act* which states the 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, or if the system is receiving all of its water from another system under an agreement, to the flow rates specified in the written agreement.

All of the above requirements have been met and will be further explored throughout the report. The Town continues to successfully operate its Water System in accordance with all Provincial Legislative requirements.

A copy of this report is required to be presented and accepted by Municipal Council no later than March 31 of each calendar year.

This report is specific to the Thornbury Water Treatment Plant (WTP) located at 230 Peel Street and its associated distribution system in the Lora Bay, Clarksburg, Thornbury, Camperdown, Craighleith and Swiss Meadows Service Areas. Through the implementation of the Municipal Drinking Water Licensing Program, the authority to establish or alter a system is provided through a Drinking Water Works Permit and the authority to use or operate the system is provided through a Municipal Drinking Water License. In 2010, the Town was issued Permit Number 111-201 and License Number 111-101. The Permit, together with the Drinking Water Works License replaces the previously issued Certificate of Approval.

## **Waterworks Description**

The Water Treatment is classified as a Large Municipal Residential System. The Water Treatment Plant Subclass System is Class II and the Water Distribution Subclass System is Class III. The raw water source is surface water supplied by Georgian Bay.

The distribution system consists of approximately 120 kilometers of water main owned and operated by the Town of The Blue Mountains (Town). Watermains range in size up to 400 mm, consisting of PVC, ductile iron, cast iron, asbestos cement and high density polyethylene.

The Town also receives a supplemental supply of water from the Town of Collingwood to assist with meeting water demands and providing redundancy. The water purchase agreement signed by the Town and the Town of Collingwood states the Town will purchase on a take or pay basis 4,000 cubic meters of water on average for each day until January 2015 or other arrangements are made. The Town may then purchase 8,000 cubic meters of water if the purchase is mutually agreed upon by both parties.

## **Compliance**

### ***Municipal Drinking Water Licensing Program***

The Municipal Water Licensing Program was introduced in response to recommendations made by Justice O'Connor during the Walkerton inquiry. Under the Licensing Program, the Town is required to obtain a license to operate the drinking water system.

The License is comprised of five components; the Drinking Water Works Permit, Implementation of a Drinking Water Quality Management System, Accreditation of the Quality Management System, preparation of a Financial Plan and obtaining of a Permit to Take Water

- Drinking Water Work Permit provides a description of the system, an authorization for alterations to the system and contains conditions relating to the physical works.
- Drinking Water Quality Management System (DWQMS) is comprised of twenty-one elements that addresses all aspects of the water system. The overall goal of the DWQMS is continuous improvement with respect to planning, operating and reviewing the drinking water system.
- Accreditation of the Operating Authority consisting of a third-party audit of the Operating Authorities compliance with the Quality Management System criteria. The accreditation of operating authorities is a mandatory requirement under the Safe Drinking Water Act, 2002 (SDWA). In March 2012, the Town received notification from both the Canadian

General Standards Board (CGSB) and the MOE advising that the MOE would be transitioning accreditation bodies. Effective July 1, 2012, CGSB was no longer designated as an accreditation body under the SDWA. The MOE designated two accreditation bodies: NSF International Strategic Registrations and QMI-SAI Global. The Town selected NSF International Strategic Registrations as new accreditation body.

- Ontario Regulation 453/07 requires that the Owner prepare a Financial Plan for the drinking water system. The Plan must be submitted to the Ministry of Municipal Affairs and Housing by May 10, 2011. The Plan must include details of the proposed or projected financial operations of the drinking-water system itemized by:
  - total revenues, water rates, user charges and other revenues
  - total expenses, amortization expenses, interest expenses, and other expenses
  - annual surplus or deficit
  - accumulated surplus or deficit
- Permit to Take Water is required for systems that take 50,000 litres or more of source water per day. These permits help to ensure the conservation, protection, management and sustainable use of Ontario's water.

The Town's Water Financial Plan was approved by Council on May 9, 2011 and a copy was submitted to the Ministry of Municipal Affairs and Housing as required by legislation. As the needs of the system change and evolve, so too, will the Financial Plan. The Plan will be updated at a minimum every five years.

On September 12, 2011, the Town applied for the Full Scope – Entire DWQMS accreditation option which is based on the documentation and implementation of all twenty-one elements of the DWQMS.

On October 25 and 26, 2012, an on-site verification audit was completed by NSF International Strategic Registrations (NSF-ISR), the third party Accreditation Body selected by the Town. On-site audits are essential tools for measuring the effectiveness of the QMS and audit findings indicate areas where the QMS met (conformance) or did not meet (non-conformance) the requirements of the QMS. The role of the Auditor is to assess whether the Town's documented QMS met the "DO" requirements of the DWQMS.

The final audit report identified six (6) Minor non-conformances and five (5) Opportunities for Improvement. A non-conformance indicates that the QMS needs to be improved to meet an element of the DWQMS and the specific details are outlined by the Auditor in the form of a Corrective Action Request (CAR).

Staff prepared responses to the CARs identified and all documentation was filed with NSF-ISR by December 25, 2012. On January 22, 2013 staff received Full Scope – Entire DWQMS accreditation, expiring January 16, 2016.

During 2012 there were no incidents of non-compliance with the water system's Certificate of Approval, Drinking Water Works Permit, Drinking Water Works License or Ministry of the Environment regulatory requirements. There was one incident of adverse water quality that will be discussed later in this report.



## **Compliance with Permit Number 111-201 and License Number 111-101 issued for The Blue Mountains Drinking Water System**

The Thornbury Water Treatment Plant is owned by the Corporation of the Town of The Blue Mountains and is operated by employees of the Town's Water Group. Water Operators maintain the associated distribution system, reservoirs and booster pumping facilities. Staffing levels are maintained to ensure adequate numbers of trained and licenced personnel are available for proper operations during emergency or upset conditions or to deal with equipment breakdown. Operator meetings are conducted to allow Staff to review existing regulations and any associated amendments made. Staff training requirements are frequently reviewed to ensure all Operations staff have met the training requirements set out in Ontario Regulation 128/04 of the *Safe Drinking Water Act*.

Contingency plans and operations manuals are established and located at each Reservoir/Booster Station as well as the Thornbury Water Treatment Plant and Water Operations Center. Operations manuals include information necessary for the day to day operations and maintenance of the Water Treatment Plant and Distribution System. Contingency plans include information that may be required for proper operation of the Water Treatment Plant and Distribution system. Contingency plans provide Operations staff with procedures to ensure work is being performed in a consistent manner and contain such items as emergency plans and contacts, supplier contact lists, and a key list of equipment.

### **Schedule C: System-Specific Conditions**

#### **Section 1.0 – Rated Capacity – *The maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed 13,536 m<sup>3</sup>***

There were no instances during this reporting period where the flow rate exceeded the rated capacity.

#### **Section 1.5 – Residue Management – *The annual average concentration of Suspended Solids shall not exceed 25 mg/L.***

Samples requiring analysis for suspended solids are typically collected during the first week of every month and analyzed by an accredited laboratory. Twelve samples were collected resulting in an annual average of 5.5 mg/L.

#### **Section 1.6 – UV Disinfection Equipment Performance**

Ultra violet (UV) disinfection is the method of disinfection in which ultraviolet irradiation is used to inactivate target organisms in the water source and is the primary disinfection used at the Thornbury WTP. Ultra violet disinfection equipment is installed and operated such that a UV dosage of at least 40 mJ/cm<sup>2</sup> is maintained. A dosage of less than 40 mJ/cm<sup>2</sup> triggers a shutdown of the UV and high lift pumps. A UV transmittance meter measures the waters ability to transmit light and is expressed as a percentage to show what measure of disinfection is achieved.

## **Section 2.1 – Flow Measurement and Recording Requirements**

Flow measuring devices for measuring the amount of raw water taken from Georgian Bay and the amount of water supplied to the distribution system are calibrated annually as per manufacturer's instructions. The flow rate and daily volume of water conveyed from the treatment system to the distribution system is accomplished through the treated water flow meter and recorded on Supervisory Control And Data Acquisition (SCADA) trending printouts.

## **Section 4.0 – Additional Sampling, Testing and Monitoring**

Water sampling is conducted as per the requirements outlined in Schedule 10 and 13 of Ontario Regulation 170/03. Water samples are collected throughout the distribution system at designated sampling stations as well as at Reservoirs and Booster Stations. Raw water sampling provides Operators with the necessary information to determine the appropriate level of treatment required to make the water potable while treated water and distribution samples are vital for ensuring the quality of water provided to residents is in accordance with Ministry of the Environment Standards.

A weekly sampling plan<sup>1</sup> dictates the weekly sampling locations and is reviewed and revised as necessary. During the winter months, a winter sampling plan<sup>2</sup> is used. Samples requiring annual analysis are typically collected during the first week of April and are analyzed by an accredited laboratory.

Trihalomethane sampling is conducted at the extremities in the distribution system. All sampling is conducted in accordance with Ministry of the Environment Regulations and is monitored on a regular basis.

Chemicals used in the operation of the drinking-water system that are in contact with water within the system meet all applicable standards as established by AWWA, ANSI, NSF 60 and NSF 61 safety criteria standards. Material Safety Data Sheets are available for all chemicals and materials used.

### **Schedule D: Conditions for Relief from Regulatory Requirements**

The Town is sampling for lead under the reduced sampling protocol. The testing frequency is reduced to two consecutive periods of semi-annual testing once every three years and the number of locations is also reduced. The Town will commence lead sampling between December 15, 2013 and April 15, 2014.

### **Non-Compliance with the Drinking Water Works Permit and Drinking Water License**

There were no issues of non-compliance with the Permit and License.

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<sup>1</sup> Refer to Appendix A – Sampling Locations

<sup>2</sup> Refer to Appendix A-1 – Winter Sampling Locations

## **Non-Compliance with Regulatory Requirements and Actions Required Resulting from Ministry of the Environment Inspection**

An inspection was completed by Ministry of the Environment officials on September 18, 2012. The primary focus of the inspection was to confirm compliance with Ministry of the Environment legislation and control documents, as well as conformance with Ministry related policies for the inspection period.

### **Findings:**

Non-Compliance with Regulatory Requirements and Actions Required	Not Applicable
Summary of Best Practice Issues and Recommendations	Not Applicable

In order to measure individual drinking water systems inspection results, the Ministry established an inspection compliance risk framework based on the principles of the inspection. The Inspection report includes an Inspection Summary Rating Record which is designed to encourage drinking water systems to strive for continuous improvement. Based on the Ministry established rating methodology, the Blue Mountains Drinking Water System received a 100% rating for the 2012-2013 reporting period.

### **Notifications of Adverse Water Quality Events**

This section describes all Adverse Water Quality Incidents (AWQI). This term refers to any unusual test result from treated water that does not meet a provincial water quality standard or situation where disinfection of the water may be compromised. A single adverse water quality incident does not necessarily mean that drinking water from the system is unsafe – it indicates that, on at least one occasion, a water quality standard was not met.

Ontario Regulation 170/03 outlines the instances in which notifications are required when a parameter used to measure water quality exceeds a Maximum Acceptable Concentration (MAC). Once notification is received from the laboratory or Operations staff, Operators are to follow the steps as outlined in the Adverse Sample Result Received from Laboratory Procedure.

On August 1, 2012, Operators received notification from our accredited laboratory that a sample collected from the Lora Bay – John Watts & Rankins Sample Station contained one (1) Total Coliform count. Operators collected samples upstream, downstream and at the site that yielded the adverse result on August 1<sup>st</sup>. Samples were collected August 2<sup>nd</sup> at the same locations and results from both sampling rounds contained zero (0) total coliform. Both the Ministry of Health and the Ministry of the Environment Spills Action Centre were contacted in accordance with Ontario Regulation 170/03 and no additional direction was provided.

## Summary of the Quantity of Water Supplied During the Reporting Period

Appended to this report (Appendix B) are the treated water flows for the Thornbury Water Treatment Plant for the 2012 reporting period. The Thornbury Water Treatment Plant services a population of approximately 20,092 residents, including commercial, industrial and resort facilities. As noted in Chart No. 1 below, there is a significant increase in water demand during the peak periods of July and August. The increase in water demands during the “peak” recreational periods is attributed to the seasonal tourist influx. Appended to this report (Appendix C) are the supplemental flows received from the Town of Collingwood for the 2012 reporting period.

Chart No. 1 below summarizes the monthly totals of Treated Water Flows for the Thornbury Water Plant as well as the additional supply received from the Town of Collingwood.

**Chart No. 1**

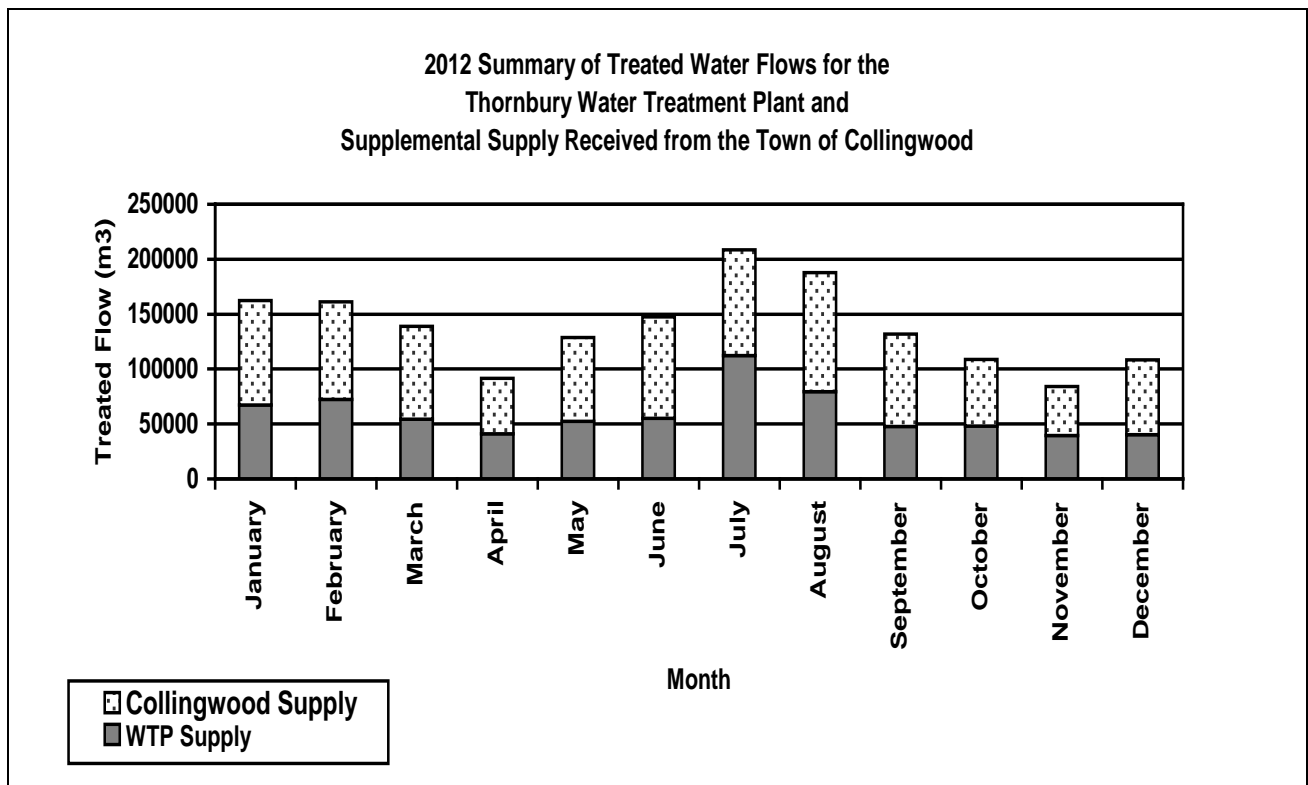
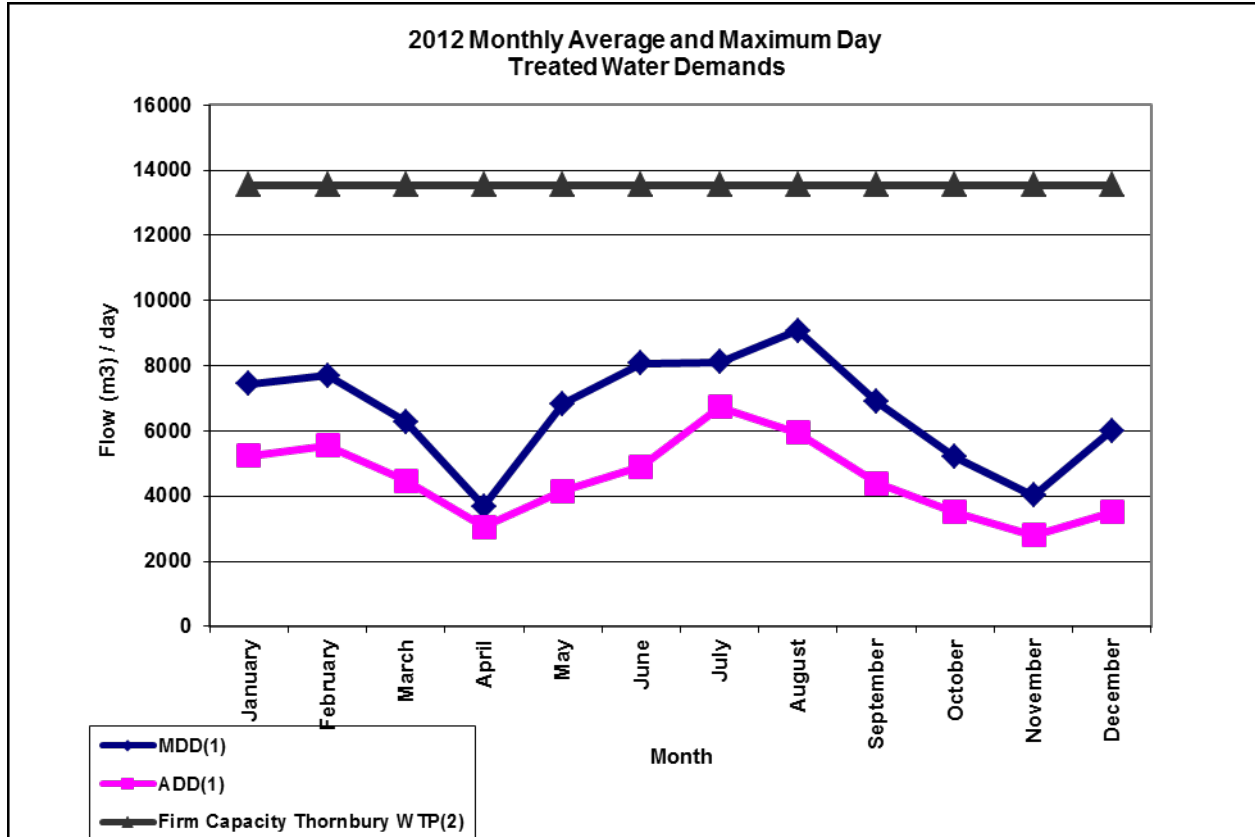


Chart No. 2 reflects the monthly average daily demands (ADD) and monthly maximum daily demands (MDD) for the treated water at the Thornbury WTP as well as the supplemental supply received from the Town of Collingwood.

**Chart No. 2**



(1) The above graph reflects the total treated water flows from the Thornbury WTP and the supplemental supply received from the Town of Collingwood

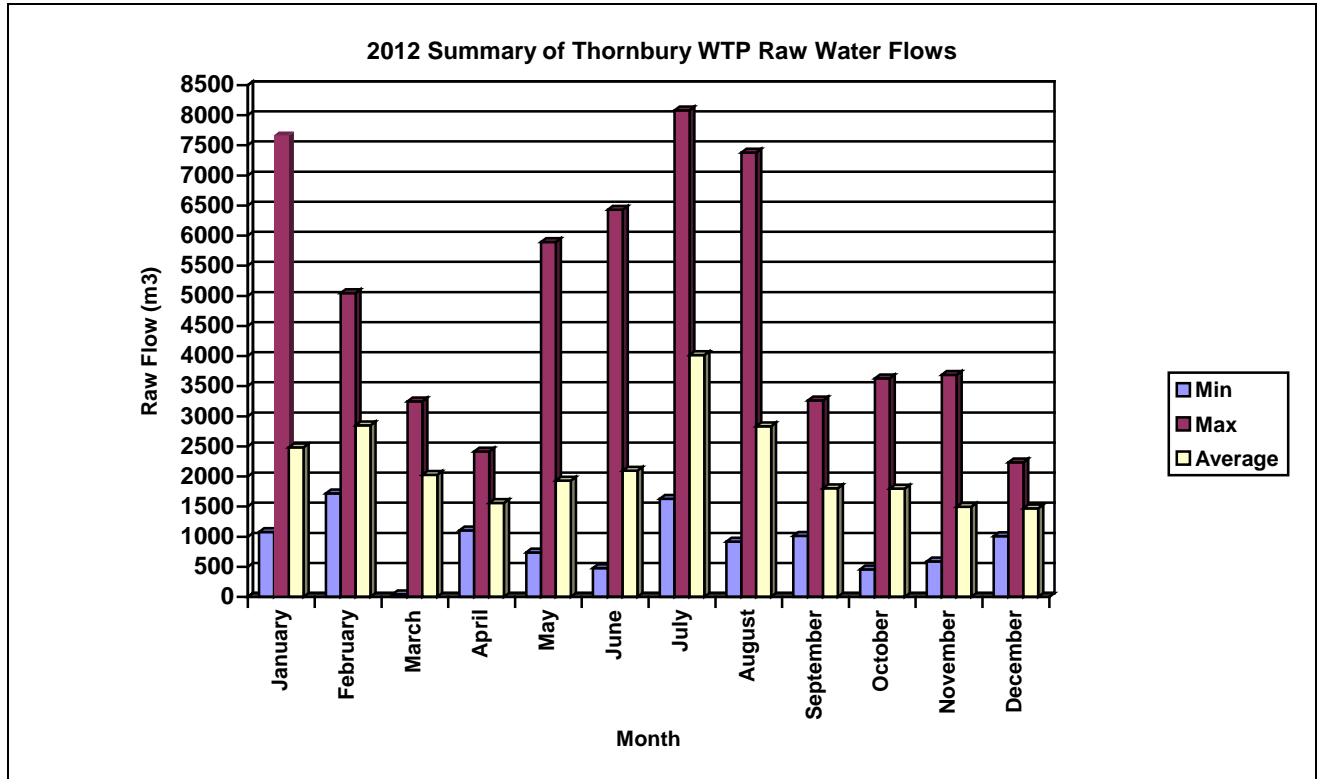
(2) Firm Capacity does not include Collingwood Supply of 4,000 m<sup>3</sup>/day

From June 1 through to and including September 1, the Town imposed restrictions on external water use. The restrictions are in force to encourage water conservation efforts as well as control maximum day demands. During 2012, the Town imposed Stage 1 water restrictions which, restricts residents' external water use to between the hours of 7:00am and 9:00am and 7:00pm and 9:00pm on specified calendar days. Properties with odd numbered addresses can water on odd numbered calendar days. Properties with even numbered addresses can water on even numbered calendar days.

## Raw Water Flows for the Thornbury Water Treatment Plant

Appended to this report (Appendix D) and included below in Chart No. 3 below are the raw water flows into the Thornbury Water Treatment Plant for the 2012 reporting period. Minimum, maximum and average values are based on daily flows for the month.

**Chart No. 3**



### Raw Water Flows Versus Capacity

A daily summary of the maximum daily flow rates expressed as a percentage of capacity is included in Appendix E.

### Operational Overview

There were (6) six watermain breaks in the 2012 reporting period. All breaks were repaired with minimal water service interruption to consumers. Two of the watermain breaks occurred in areas identified in the Tangible Capital Asset program as requiring replacement in the upcoming five years.



Sampling Locations

<b>Week # 1</b>	<b>Week # 2</b>	<b>Week # 3</b>	<b>Week # 4</b>	<b>Week # 5</b>
Sunset Blvd. DE SS (030)	Keepers Cove Meter Building	West Ridge DE Phase 1 SS (032)	Lora Bay East Ridge SS (002)	Lora Bay - John Watts & Rankins SS (001)
Lora Bay Clubhouse SS (003)	Cameron Street SS (004)	Louisa Street East SS (008)	Keepers Cove Meter Building	Lora Bay Drive SS (031)
Duncan Street SS (005)	Far Hills Club - Alfred Street SS (024)	Geo. Bay Clubhouse Condos (010)	Edward Street SS (006)	Louisa / Hester SS (007)
Camperdown Court SS (012)	Geo. Bay Clubhouse PRV Chamber (009)	Aspen Way / Old Lakeshore SS (015)	Geo. Bay Clubhouse PRV Chamber (009)	Camperdown Court SS (012)
Blueski George Crescent SS (026)	Barclay Blvd. SS (029)	Orchard - National Drive SS (025)	Camperdown - Stone Zack Lane SS (011)	Barclay Blvd. SS (029)
Drakes Path SS (018)	Oak Court SS (014)	Alrberg Crescent SS (017)	Teskey Drive SS (028)	Arlberg Crescent SS (017)
Patricia Drive SS (020)	Brophy's Lane SS (016)	Timmons Street SS (027)	Wards Road Booster Station	Monterra/Grand Cypress SS (019)
Mountain Road Booster Station	Monterra / Grand Cypress SS (019)	Patricia Drive SS (020)	Mountain Road Booster Station	Mountain Road Booster Station
Swiss Meadows Standpipe	Mountain Road Booster Station	Mountain Road Booster Station	Mountain Road SS (021)	Patricia Drive SS (020)
Beaver Valley Community School	Swiss Meadows Scandia SS (022)	Swiss Meadows Maple SS (023)	Swiss Meadows Scandia SS (022)	Swiss Meadows Maple SS (023)



Winter Sampling Locations

<b>Week # 1</b>	<b>Week # 2</b>	<b>Week # 3</b>	<b>Week # 4</b>	<b>Week # 5</b>
10th Line Booster Station	10th Line Booster Station	10th Line Booster Station	10th Line Booster Station	10th Line Booster Station
Water Operations Center	Water Operations Center	Water Operations Center	Water Operations Center	Water Operations Center
Thornbury Reservoir	Thornbury Reservoir	Thornbury Reservoir	Thornbury Reservoir	Thornbury Reservoir
Camperdown Reservoir	Camperdown Reservoir	Camperdown Reservoir	Camperdown Reservoir	Camperdown Reservoir
Arrowhead Road Booster Station	Arrowhead Road Booster Station	Arrowhead Road Booster Station	Arrowhead Road Booster Station	Arrowhead Road Booster Station
Happy Valley Booster Station	Happy Valley Booster Station	Happy Valley Booster Station	Happy Valley Booster Station	Happy Valley Booster Station
Mountain Road Booster Station	Mountain Road Booster Station	Mountain Road Booster Station	Mountain Road Booster Station	Mountain Road Booster Station
Swiss Meadows Standpipe	Swiss Meadows Standpipe	Swiss Meadows Standpipe	Swiss Meadows Standpipe	Swiss Meadows Standpipe
Wards Road Booster Station	Wards Road Booster Station	Wards Road Booster Station	Wards Road Booster Station	Wards Road Booster Station
Keepers Cove Meter Building	Keepers Cove Meter Building	Keepers Cove Meter Building	Keepers Cove Meter Building	Keepers Cove Meter Building



### Compliance Report - 2012 Summary of Treated Water Flows

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	2033	2353	2243	1177	1599	4176	3989	5779	2471	1143	1114	916
2nd	1537	2331	1981	1675	1541	4667	3888	6520	2828	1404	1185	1693
3rd	2266	2503	2868	1300	1353	3524	2658	5551	2900	1300	1690	1455
4th	6732	3627	2087	1392	1397	3990	2299	3685	899	1213	1044	1566
5th	3430	2161	2149	2030	1080	3177	4099	2888	1178	1828	1626	1385
6th	2181	2138	2751	1069	1785	2357	4023	3732	1976	2164	1058	1412
7th	2780	2069	1968	1243	1599	419	2096	2315	2044	1826	1198	1007
8th	2574	2025	1774	1054	1622	1616	1703	3040	974	2923	1161	1095
9th	2399	2459	2686	1304	2463	1577	1804	2501	1261	1143	1058	1336
10th	2598	4448	2410	1325	981	1342	2237	1681	1086	2630	857	1228
11th	2265	2874	1906	976	1430	869	1436	1345	1752	2017	901	887
12th	1397	3949	2549	1347	801	862	3166	1017	1940	2995	912	999
13th	1627	2211	1987	1794	1674	1224	2558	1286	1645	1543	864	1205
14th	1387	2756	2011	1256	1072	831	4111	1004	1287	1711	531	1358
15th	3249	1611	1913	1063	1988	1010	3173	959	1117	2501	1061	1226
16th	1777	1629	2228	1967	1068	1424	2982	983	1334	1783	957	1259
17th	1566	1709	2334	1271	1457	1703	2517	812	1532	2596	836	1238
18th	1324	3233	2015	1604	978	987	3681	1822	886	400	1620	1088
19th	863	3362	1292	1528	819	1037	2648	2141	1448	2073	517	1422
20th	2423	3367	1536	1626	2858	782	2470	1754	1533	1259	1461	887
21st	1102	1747	1424	1319	1879	1299	3526	2337	1476	995	1551	832
22nd	2691	2634	0	1247	859	724	4081	2452	1480	1039	1296	1136
23rd	2005	2132	1076	1226	951	586	3177	2526	1292	946	2393	1406
24th	1126	2205	1104	1338	1175	2576	2926	2254	1985	1127	3264	1172
25th	1811	2294	1083	1595	1404	742	2606	2108	1709	2102	2462	1091
26th	2130	3511	1269	975	1146	889	5817	2999	1906	455	1975	1655
27th	1241	1728	845	1837	1627	791	5972	3974	2053	533	1163	1282
28th	1769	1858	1606	1384	649	1597	6801	2992	1388	864	1245	1990
29th	3785	1453	992	977	3864	2729	7080	2720	1268	1224	863	1643
30th	1764		1176	1152	5172	5649	6804	1747	1020	1079	1690	1852
31st	1547		1180		4287		5926	2622		1394		1461
Total	67379	72377	54443	41051	52578	55156	112254	79546	47668	48210	39553	40182

Average	2174	2496	1756	1368	1696	1839	3621	2566	1589	1555	1318	1296
Max	6732	4448	2868	2030	5172	5649	7080	6520	2900	2995	3264	1990
Min	863	1453	0	975	649	419	1436	812	886	400	517	832

All flows are in cubic meters

March 22 - Water Plant Off-line due to Watermain Break - Little Beaver Creek

### Compliance Report - 2012 Summary of Supplemental Flows from Town of Collingwood

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	3851	1714	2908	1608	1795	0	3170	0	3996	3052	1230	1648
2nd	3789	3255	3284	1853	1808	0	3849	2549	3966	2806	1605	1886
3rd	891	2932	3404	1874	1734	0	3970	2880	3989	2822	2224	1498
4th	0	3496	3689	1382	2049	0	3999	3447	2321	2387	1674	1228
5th	3319	2786	2352	1305	1994	0	3718	4049	2914	2393	1671	1325
6th	3630	3379	2771	1989	1847	1238	3816	3986	3087	3029	1823	1332
7th	3663	2892	2664	1862	1892	3547	3873	3677	3161	2653	1485	1888
8th	3399	2055	2521	2173	2230	3999	3760	4007	3103	1353	1482	1418
9th	2147	2361	2956	1940	1663	3975	3910	3246	2145	2257	1910	1590
10th	2101	3255	3266	1097	1697	4013	3997	3419	3103	989	2298	1935
11th	2236	3511	3834	1327	2622	4004	4003	4011	2510	965	2393	2001
12th	2890	2335	3307	1560	2527	3631	3989	3994	2730	1133	1494	1534
13th	3496	2029	3408	1477	2266	3573	3945	3961	3153	1796	1621	1490
14th	3761	2357	3457	1866	2874	3672	4005	3954	2974	1374	1796	1361
15th	3957	3051	3157	2310	2116	4011	3970	3681	3647	912	2137	2217
16th	2448	3491	3822	1234	1518	3996	3977	3940	3136	1528	1647	2101
17th	3174	3778	3213	1267	2485	4006	4004	3866	2284	1871	1418	1489
18th	3159	3675	3782	1773	3188	3575	3996	3979	2814	1478	2407	1678
19th	2722	3759	2153	1270	3679	3642	3993	3669	2152	2374	1596	1545
20th	3656	4027	3463	1626	3964	3975	3904	2757	2195	2251	1536	2302
21st	3954	2399	3065	1865	3968	3734	3943	2993	2282	2283	978	2278
22nd	3598	2954	3219	1452	3315	3991	3982	3189	2655	1754	1552	2283
23rd	3259	3421	1750	1841	3109	4024	3890	3942	2365	1804	0	2781
24th	3244	3465	1947	1438	3642	4032	3965	3955	2435	1787	0	3006
25th	3576	3589	1612	1808	3639	3610	2663	3804	2063	1604	195	3062
26th	2755	3998	1247	1463	3986	4028	0	3967	2301	2138	1257	3013
27th	3366	2557	1651	1731	3933	3548	0	3212	2188	3107	1303	3358
28th	3952	3483	1193	2301	3255	4007	0	3218	2875	2231	1182	4008
29th	3658	2775	1488	1945	1182	3905	0	3304	2620	1640	1431	3015
30th	2604		1798	1732	0	2416	0	3797	2997	1331	1309	4007
31st	2900		2027		0		0	3985		1532		4004
Total	95155	88779	84408	50369	75977	92152	96291	108438	84161	60634	44654	68281
Average	3070	3061	2723	1679	2451	3072	3106	3498	2805	1956	1488	2203
Max	3957	4027	3834	2310	3986	4032	4005	4049	3996	3107	2407	4008
Min	0	1714	1193	1097	0	0	0	0	2063	912	0	1228

All flows are in cubic meters

### Compliance Report - 2012 Summary of Raw Water Flows

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	2321	2660	2529	1348	1797	4743	4503	6537	2780	1285	1232	1014
2nd	1726	2637	2240	1912	1734	5267	4389	7383	3233	1661	1411	1928
3rd	2536	2822	3246	1462	1504	4011	3005	6320	3264	1457	1879	1647
4th	7667	4150	2417	1568	1592	4504	2591	4208	1116	1374	1150	1767
5th	3875	2503	2425	2290	1213	3587	4622	3288	1340	2028	1820	1648
6th	2479	2408	3100	1209	2008	2662	4606	4218	2209	2422	1204	1604
7th	3133	2321	2239	1398	1793	476	2388	2595	2333	2081	1362	1147
8th	2956	2285	1998	1201	1820	1824	1929	3435	1110	3277	1319	1205
9th	2724	2787	3035	1463	3114	1788	2113	2908	1440	1273	1199	1513
10th	2927	5045	2819	1572	1179	1535	2514	1909	1235	2950	982	1374
11th	2552	3290	2254	1108	1639	989	1627	1533	2079	2521	1002	1012
12th	1678	4506	3049	1508	875	983	3573	1158	2181	3629	1036	1111
13th	1835	2496	2327	2014	1882	1389	2885	1420	1869	1724	973	1358
14th	1555	3113	2269	1400	1204	935	4647	1131	1462	1939	603	1545
15th	3710	1906	2146	1212	2288	1155	3597	1096	1272	2807	1217	1362
16th	1997	2089	2509	2414	1208	1601	3367	1109	1518	2257	1079	1437
17th	1781	1962	2633	1511	1640	1910	2863	918	1714	2921	928	1405
18th	1590	3655	2299	1894	1111	1296	4153	2064	1011	456	1840	1242
19th	1078	3835	1731	1732	941	1336	3062	2405	1641	2333	587	1616
20th	2874	3808	1466	1827	3236	902	2922	2004	1839	1436	1656	1007
21st	1238	2050	1611	1464	2113	1468	3976	2614	1681	1134	1760	1101
22nd	3067	2979	43	1422	968	820	4623	2753	1645	1163	1558	1259
23rd	2324	2411	1237	1384	1093	670	3598	2925	1446	1070	2708	1606
24th	1290	2489	1251	1532	1297	2907	3571	2532	2238	1619	3688	1332
25th	2045	2590	1239	1865	1610	842	3199	2367	1910	2642	2764	1217
26th	2398	4010	1452	1105	1270	1016	6611	2999	2136	516	2217	1858
27th	1448	2043	1030	2047	1862	898	6919	3974	2316	586	1315	1454
28th	1985	2092	1797	1556	737	1812	7909	2992	1545	968	1389	2236
29th	4326	1721	1116	1116	4363	3069	8079	2720	1418	1393	1069	1853
30th	2076		1340	1295	5893	6429	7747	1747	1198	1228	1892	2102
31st	1853		1317		4883		6743	2622		1586		1634
Total	77044	82663	62164	46829	59867	62824	128331	87884	54179	55736	44839	45594
Avg	2485	2850	2005	1561	1931	2094	4140	2835	1806	1798	1495	1471
High	7667	5045	3246	2414	5893	6429	8079	7383	3264	3629	3688	2236
Low	1078	1721	43	1105	737	476	1627	918	1011	456	587	1007

All flows are in cubic meters

APPENDIX E

2012 Maximum Raw Daily Flow Rates Expressed as a Percentage of Capacity (13,536 m<sup>3</sup> in Certificate of Approval)

	Jan	% of Flow	Feb	% of Flow	Mar	% of Flow	Apr	% of Flow	May	% of Flow	Jun	% of Flow	Jul	% of Flow	Aug	% of Flow	Sep	% of Flow	Oct	% of Flow	Nov	% of Flow	Dec	% of Flow
1st	2321	17.15	2660	19.65	2529	18.68	1348	9.96	1797	13.28	4743	35.04	4503	33.27	6537	48.29	2780	20.54	1285	9.49	1232	9.10	1014	7.49
2nd	1726	12.75	2637	19.48	2240	16.55	1912	14.13	1734	12.81	5267	38.91	4389	32.42	7383	54.54	3233	23.88	1661	12.27	1411	10.42	1928	14.24
3rd	2536	18.74	2822	20.85	3246	23.98	1462	10.80	1504	11.11	4011	29.63	3005	22.20	6320	46.69	3264	24.11	1457	10.76	1879	13.88	1647	12.17
4th	7667	56.64	4150	30.66	2417	17.86	1568	11.58	1592	11.76	4504	33.27	2591	19.14	4208	31.09	1116	8.24	1374	10.15	1150	8.50	1767	13.05
5th	3875	28.63	2503	18.49	2425	17.92	2290	16.92	1213	8.96	3587	26.50	4622	34.15	3288	24.29	1340	9.90	2028	14.98	1820	13.45	1648	12.17
6th	2479	18.31	2408	17.79	3100	22.90	1209	8.93	2008	14.83	2662	19.67	4606	34.03	4218	31.16	2209	16.32	2422	17.89	1204	8.89	1604	11.85
7th	3133	23.15	2321	17.15	2239	16.54	1398	10.33	1793	13.25	476	3.52	2388	17.64	2595	19.17	2333	17.24	2081	15.37	1362	10.06	1147	8.47
8th	2956	21.84	2285	16.88	1998	14.76	1201	8.87	1820	13.45	1824	13.48	1929	14.25	3435	25.38	1110	8.20	3277	24.21	1319	9.74	1205	8.90
9th	2724	20.12	2787	20.59	3035	22.42	1463	10.81	3114	23.01	1788	13.21	2113	15.61	2908	21.48	1440	10.64	1273	9.40	1199	8.86	1513	11.18
10th	2927	21.62	5045	37.27	2819	20.83	1572	11.61	1179	8.71	1535	11.34	2514	18.57	1909	14.10	1235	9.12	2950	21.79	982	7.25	1374	10.15
11th	2552	18.85	3290	24.31	2254	16.65	1108	8.19	1639	12.11	989	7.31	1627	12.02	1533	11.33	2079	15.36	2521	18.62	1002	7.40	1012	7.48
12th	1678	12.40	4506	33.29	3049	22.53	1508	11.14	875	6.46	983	7.26	3573	26.40	1158	8.55	2181	16.11	3629	26.81	1036	7.65	1111	8.21
13th	1835	13.56	2496	18.44	2327	17.19	2014	14.88	1882	13.90	1389	10.26	2885	21.31	1420	10.49	1869	13.81	1724	12.74	973	7.19	1358	10.03
14th	1555	11.49	3113	23.00	2269	16.76	1400	10.34	1204	8.89	935	6.91	4647	34.33	1131	8.36	1462	10.80	1939	14.32	603	4.45	1545	11.41
15th	3710	27.41	1906	14.08	2146	15.85	1212	8.95	2288	16.90	1155	8.53	3597	26.57	1096	8.10	1272	9.40	2807	20.74	1217	8.99	1362	10.06
16th	1997	14.75	2089	15.43	2509	18.54	2414	17.83	1208	8.92	1601	11.83	3367	24.87	1109	8.19	1518	11.21	2257	16.67	1079	7.97	1437	10.62
17th	1781	13.16	1962	14.49	2633	19.45	1511	11.16	1640	12.12	1910	14.11	2863	21.15	918	6.78	1714	12.66	2921	21.58	928	6.86	1405	10.38
18th	1590	11.75	3655	27.00	2299	16.98	1894	13.99	1111	8.21	1296	9.57	4153	30.68	2064	15.25	1011	7.47	456	3.37	1840	13.59	1242	9.18
19th	1078	7.96	3835	28.33	1466	10.83	1732	12.80	941	6.95	1336	9.87	3062	22.62	2405	17.77	1641	12.12	2333	17.24	587	4.34	1616	11.94
20th	2874	21.23	3808	28.13	1731	12.79	1827	13.50	3236	23.91	902	6.66	2922	21.59	2004	14.80	1839	13.59	1436	10.61	1656	12.23	1007	7.44
21st	1238	9.15	2050	15.14	1611	11.90	1464	10.82	2113	15.61	1468	10.85	3976	29.37	2614	19.31	1681	12.42	1134	8.38	1760	13.00	1101	8.13
22nd	3067	22.66	2979	22.01	43	0.32	1422	10.51	968	7.15	820	6.06	4623	34.15	2753	20.34	1645	12.15	1163	8.59	1558	11.51	1259	9.30
23rd	2324	17.17	2411	17.81	1237	9.14	1384	10.22	1093	8.07	670	4.95	3598	26.58	2925	21.61	1446	10.68	1070	7.90	2708	20.01	1606	11.86
24th	1290	9.53	2489	18.39	1251	9.24	1532	11.32	1297	9.58	2907	21.48	3571	26.38	2532	18.71	2238	16.53	1619	11.96	3688	27.25	1332	9.84
25th	2045	15.11	2590	19.13	1239	9.15	1865	13.78	1610	11.89	842	6.22	3199	23.63	2367	17.49	1910	14.11	2642	19.52	2764	20.42	1217	8.99
26th	2398	17.72	4010	29.62	1452	10.73	1105	8.16	1270	9.38	1016	7.51	6611	48.84	2999	22.16	2136	15.78	516	3.81	2217	16.38	1858	13.73
27th	1448	10.70	2043	15.09	1030	7.61	2047	15.12	1862	13.76	898	6.63	6919	51.12	3974	29.36	2316	17.11	586	4.33	1315	9.71	1454	10.74
28th	1985	14.66	2092	15.46	1797	13.28	1556	11.50	737	5.44	1812	13.39	8079	59.69	2992	22.10	1545	11.41	968	7.15	1389	10.26	2236	16.52
29th	4326	31.96	1721	12.71424	1116	8.24	1116	8.24	4363	32.23	3069	22.67	7747	57.23	2720	20.09	1418	10.48	1393	10.29	1069	7.90	1853	13.69
30th	2076	15.34			1295	9.57	1295	9.57	5893	43.54	6429	47.50	6743	49.82	1747	12.91	1198	8.85	1228	9.07	1892	13.98	2102	15.53
31st	1853	13.69				0.00			4883	36.07				0.00	2622	19.37			1586	11.72			1634	12.07

Avg	2485		2850		2027		1561		1931		2094		4014		2835		1806		1798		1495		1471
High	7667		5045		3246		2414		5893		6429		8079		7383		3264		3629		3688		2236
Low	1078		1721		43		1105		737		476		1627		918		1011		456		587		1007

All flows are in cubic metres



ANNUAL REPORT TEMPLATE

<b>Drinking-Water System Number:</b>	220001762
<b>Drinking-Water System Name:</b>	The Blue Mountains Drinking Water System
<b>Drinking-Water System Owner:</b>	Town of the Blue Mountains
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2012 to December 31, 2012

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Town of The Blue Mountains, Town Hall, 32 Mill Street, Thornbury, Ontario</p> <p style="text-align: center;">Town Website: www.thebluemountains.ca</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ X ]</p> <p>Number of Interested Authorities you report to: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ X ]</p>
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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 [ X ]



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 Thornbury Water Treatment Plant is located at 230 Peel Street. The water source is Georgian Bay, part of the Great Lakes Water System.

A 472m long, 600mm diameter raw water intake pipe extends approximately 430 meters into Georgian Bay. Zebra mussel control consists of a 38mm diameter chlorine feed line and a chlorine solution diffuser (pre-chlorination). Raw water sampling is accomplished by utilizing a 25 mm diameter sampling line which extends out from the intake bell.

After entering the intake, three (3) low lift vertical turbine pumps (2 duty, 1 standby) deliver the raw water to two (2) 0.30 mm strainers before it is directed to the microfiltration units.

The microfiltration units consist of three (3) trains of 240 microfiltration modules (80 modules per train) complete with three (3) valve racks and controls. The microfiltration units filter the raw water by forcing it through 0.1 micron sized membranes.

Two (2) reverse filtration pumps (1 duty, 1 standby) are used to backwash the microfiltration units into the Modified Reverse Filtration Filter (MRFF). The MRFF (modified original mixed media filter) is isolated from the potable water system and is used to filter the reverse filtration water from the microfiltration units and the backflush discharge from the strainers. This waste filtrate water is monitored for chlorine residual and chemically de-chlorinated before being discharged into the Little Beaver River.

After being filtered, the treated water is discharged into a common header where it is chlorinated (post-chlorination) prior to being drawn by the three (3) high lift vertical turbine pumps (2 duty, 1 standby) and pumped through the ultraviolet disinfection system. The ultraviolet system consists of three (3) Trojan UV Reactors (2 duty, 1 standby) which provide 100% treatment capacity prior to delivery to the Town's distribution system. Ultraviolet is the method of disinfection in which ultraviolet irradiation is used to inactivate target organisms in the water source and is the primary disinfection used at the Thornbury WTP.

Control of the high lift pumps is via level in the 747 m<sup>3</sup> elevated storage tank located on Victoria Street in Thornbury.



The distribution system consists of approximately 120 kilometers of watermain ranging in size from 50 mm to 400 mm. Distribution facilities consist of an elevated tank, 6 booster stations, 2 in-ground reservoirs complete with booster stations, 2 above ground reservoirs and 1 standpipe.

***Thornbury Water Tower***

An elevated storage tank is located on Victoria Street in Thornbury and is referred to as the Thornbury Water Tower. This Tower has a capacity of 747 m<sup>3</sup>. The Tower level supplies water pressure to the 10<sup>th</sup> Line Booster Station, Thornbury Reservoir, Camperdown Court Booster Station and Arrowhead Road Booster Station.

***10<sup>th</sup> Line Booster Station***

A booster Station and re-chlorination facility is located at the 10<sup>th</sup> Concession and Highway No. 26 and is referred to as the 10<sup>th</sup> Line Booster Station. The water pressure at this station is boosted for higher distribution pressures and volume to provide fire flows throughout the Lora Bay Service Area. 100% standby power is available at this station. The firm capacity at this station is 66.67 l/s.

***Thornbury Reservoir***

A treated water reservoir, booster station and re-chlorination facility is located at 1 Grey Street South, Unit 1 in Thornbury and is referred to as the Thornbury Reservoir. The Thornbury Reservoir is equipped with three centrifugal pumps, re-chlorination equipment and 100% standby power. The firm capacity at this station is 150 l/s.

***Camperdown Reservoir***

A treated water reservoir, pumphouse and re-chlorination facility is located at 109 Camperdown Road and is referred to as the Camperdown Reservoir. This in-ground reservoir and booster station is equipped with two centrifugal operating pumps, one centrifugal fire pump, re-chlorination equipment and 100% standby power. The firm capacity to the upper zone is 12.3 l/s.

***Camperdown Court Booster Station***

A booster pumping station is located at 103 Camperdown Court and is referred to as the Camperdown Court Booster Station. This booster station is equipped with two centrifugal pumps with standby power supplied by the Camperdown Reservoir. The firm capacity at this station is 85 l/s.

***Wards Road Booster Station***

A booster station is located at 153 Wards Road and is referred to as the Wards Road Booster Station. This booster station is equipped with two centrifugal pumps. This station is equipped with 100% standby power. The firm capacity at this station is 16 l/s.



***Arrowhead Road Booster Station***

A booster station is located at 122 Arrowhead Road and is referred to as the Arrowhead Road Booster Station. This station is equipped with three vertical turbine pumps, re-chlorination equipment and 40% standby power. Provisions were made through piping and valving to reverse the flow of water from the Craigeith Service Area to the Camperdown and Thornbury Service Areas. The firm capacity at this station is 40 l/s.

***Happy Valley Reservoirs***

Two reservoirs are located at 136 Happy Valley Road and are referred to as the Happy Valley Road Reservoirs. These reservoirs have a combined capacity of 5,000 m<sup>3</sup>.

***Happy Valley Road Booster Station***

A booster pumping station is also located at 136 Happy Valley Road and is referred to as the Happy Valley Road Booster Station. This station is equipped with two pumps and re-chlorination equipment. The firm capacity at this station is 5.35 l/s.

***Swiss Meadows Standpipe***

A 536 m<sup>3</sup> standpipe is located at 154 Scandia Lane above the Swiss Meadows subdivision.

***Mountain Road Booster Station***

A booster pumping station is located at 795930 at the intersection of Grey Road 19 and Grey Road 21 and is referred to as the Mountain Road Booster Station. This station is equipped with two in-line water booster pumps and re-chlorination equipment and has a firm capacity of 46 l/s.

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

Chlorine (liquefied gas)  
Sodium Hypochlorite (12%)  
Citric Acid  
Sodium Hydroxide  
Calcium Thiosulphate

**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**

**The Wensley Drive Watermain Extension project was included as a new infrastructure requirement for the 2012 calendar year, however, due Permit to Take Water timing, this project has been re-scheduled for 2013**





**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
August 1, 2012	Total Coliform	1	cfu/100 mL	Re-sample and re-test	August 7, 2012

**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	52	0 to 21	0 to 157	0	
Treated	52	0	0 to 1	52	0 to 56
Distribution	525	0	0	416	0 to 155

**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
<b>Turbidity</b>			
Rack 1	8760	0.034 to 0.744	NTU
Rack 2	8760	0.018 to 0.632	NTU
Rack 3	8760	0.013 to 0.798	NTU
<b>Chlorine</b>			
Finish	8760	0.96 to 1.96	mg/L
Thornbury Reservoir	8760	0.75 to 2.00	mg/L
10 <sup>th</sup> Line Booster Station	8760	0.80 to 2.50	mg/l
Arrowhead Road Booster Station	8760	0.62 to 2.01	mg/l
Arrowhead Road Booster Station By-pass	8760	0.56 to 2.50	mg/l
Happy Valley Booster Station	8760	0.78 to 2.41	mg/l
Camperdown Reservoir	8760	1.04 to 2.52	mg/l
Mountain Road Booster Station	8760	0.68 to 2.41	mg/l
Distribution	6248	0.16 to 1.87	mg/l
Fluoride (If the DWS provides)	N/A		

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



fluoridation)			
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**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
Municipal Drinking Water Licence # 111-101	Suspended Solids			

**\*\* Please see attached additional sampling results for Trihalomethanes, Clostridium, Process Wastewater Total Suspended Solids, Nitrate and Nitrite**

**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	March 26, 2012	0.02	ug/L	No
Arsenic	March 26, 2012	0.5	ug/L	No
Barium	March 26, 2012	12.5	ug/L	No
Boron	March 26, 2012	10	ug/L	No
Cadmium	March 26, 2012	0.003	ug/L	No
Chromium	March 26, 2012	0.5	ug/L	No
*Lead				
Mercury	March 26, 2012	0.02	ug/L	No
Selenium	March 26, 2012	1	ug/L	No
Sodium	March 26, 2012	4.10	mg/L	No
Uranium	March 26, 2012	0.176	ug/L	No
Fluoride	March 29, 2010	0.08	mg/L	No
Nitrite	December 3, 2012	0.005	mg/L	No
Nitrate	December 3, 2012	0.271	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				
Distribution				

**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	March 26, 2012	0.02	ug/L	No
Aldicarb	March 26, 2012	0.01	ug/L	No
Aldrin + Dieldrin	March 26, 2012	0.01	ug/L	No
Atrazine + N-dealkylated metabolites	March 26, 2012	0.01	ug/L	No
Azinphos-methyl	March 26, 2012	0.02	ug/L	No
Bendiocarb	March 26, 2012	0.01	ug/L	No
Benzene	March 26, 2012	0.32	ug/L	No
Benzo(a)pyrene	March 26, 2012	0.004	ug/L	No
Bromoxynil	March 26, 2012	0.33	ug/L	No
Carbaryl	March 26, 2012	0.01	ug/L	No
Carbofuran	March 26, 2012	0.01	ug/L	No
Carbon Tetrachloride	March 26, 2012	0.16	ug/L	No
Chlordane (Total)	March 26, 2012	0.01	ug/L	No
Chlorpyrifos	March 26, 2012	0.02	ug/L	No
Cyanazine	March 26, 2012	0.03	ug/L	No
Diazinon	March 26, 2012	0.02	ug/L	No
Dicamba	March 26, 2012	0.20	ug/L	No
1,2-Dichlorobenzene	March 26, 2012	0.41	ug/L	No
1,4-Dichlorobenzene	March 26, 2012	0.36	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	March 26, 2012	0.01	ug/L	No
1,2-Dichloroethane	March 26, 2012	0.35	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	March 26, 2012	0.33	ug/L	No
Dichloromethane	March 26, 2012	0.35	ug/L	No
2-4 Dichlorophenol	March 26, 2012	0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	March 26, 2012	0.19	ug/L	No
Diclofop-methyl	March 26, 2012	0.40	ug/L	No
Dimethoate	March 26, 2012	0.03	ug/L	No
Dinoseb	March 26, 2012	0.36	ug/L	No
Diquat	March 26, 2012	1	ug/L	No
Diuron	March 26, 2012	0.03	ug/L	No
Glyphosate	March 26, 2012	6	ug/L	No
Heptachlor + Heptachlor Epoxide	March 26, 2012	0.01	ug/L	No
Lindane (Total)	March 26, 2012	0.01	ug/L	No
Malathion	March 26, 2012	0.02	ug/L	No
Methoxychlor	March 26, 2012	0.01	ug/L	No
Metolachlor	March 26, 2012	0.01	ug/L	No
Metribuzin	March 26, 2012	0.02	ug/L	No
Monochlorobenzene	March 26, 2012	0.3	ug/L	No



Paraquat	March 26, 2012	1	ug/L	No
Parathion	March 26, 2012	0.02	ug/L	No
Pentachlorophenol	March 26, 2012	0.15	ug/L	No
Phorate	March 26, 2012	0.01	ug/L	No
Picloram	March 26, 2012	0.25	ug/L	No
Polychlorinated Biphenyls(PCB)	March 26, 2012	0.04	ug/L	No
Prometryne	March 26, 2012	0.03	ug/L	No
Simazine	March 26, 2012	0.01	ug/L	No
THM (NOTE: show latest annual average)	December 3, 2012	44	ug/L	No
Temephos	March 26, 2012	0.01	ug/L	No
Terbufos	March 26, 2012	0.01	ug/L	No
Tetrachloroethylene	March 26, 2012	0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	March 26, 2012	0.14	ug/L	No
Triallate	March 26, 2012	0.01	ug/L	No
Trichloroethylene	March 26, 2012	0.44	ug/L	No
2,4,6-Trichlorophenol	March 26, 2012	0.25	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	March 26, 2012	0.22	ug/L	No
Trifluralin	March 26, 2012	0.02	ug/L	No
Vinyl Chloride	March 26, 2012	0.17	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



**Summary of Additional Sampling Results - 2012**

Sample for: Clostridium - Raw (CFU/L)

Date	# of Samples	Location	Results / Range
03-Jan-12	1	Thornbury WTP	17
06-Feb-12	1	Thornbury WTP	2
5-Mar-12	1	Thornbury WTP	3
2-Apr-12	1	Thornbury WTP	3
<b>NO LONGER SAMPLING FOR CLOSTRIDIUM AS OF MAY 1, 2012</b>			

Sample for: Trihalomethanes - Treated (ug/L)

Date	# of Samples	Location	Results / Range
03-Jan-12	1	Camperdown Reservoir	43
03-Jan-12	1	Swiss Meadows Standpipe	28
5-Mar-12	1	Camperdown Reservoir	24
5-Mar-12	1	Swiss Meadows Standpipe	25
4-Jun-12	1	Swiss Meadows Standpipe	47
7-Aug-12	1	Swiss Meadows Standpipe	55
7-Aug-12	1	Arlberg Crescent SS (017)	54
4-Sept-12	1	Swiss Meadows Standpipe	58
4-Sept-12	1	Arlberg Crescent SS (017)	43
1-Oct-12	1	Drakes Path SS (018)	44
1-Oct-12	1	Swiss Meadows Standpipe	59
3-Dec-12	1	Camperdown Reservoir	44
3-Dec-12	1	Swiss Meadows Standpipe	44
<b>Annual Average</b>			<b>44</b>

Sample for: Process Waste Water Total Suspended Solids (mg/L)

Month	# of Samples	Location	Results / Range
January 3	1	Lakefield Laboratory	28
February 6	1	Lakefield Laboratory	3
March 5	1	Lakefield Laboratory	6
April 2	1	Lakefield Laboratory	7
May 7	1	Lakefield Laboratory	<2
June 4	1	Lakefield Laboratory	<2
July 3	1	Lakefield Laboratory	2
August 7	1	Lakefield Laboratory	2
September 4	1	Lakefield Laboratory	<2
October 2	1	Lakefield Laboratory	2
November 5	1	Lakefield Laboratory	82
December 3	1	Lakefield Laboratory	2
<b>Annual Average</b>			<b>5.5</b>



**Summary of Additional Sampling Results - 2012**

Sample for: Nitrate - Raw & Treated (mg/L)

Date	# of Samples	Location	Results / Range
03-Jan-12	1	Thornbury WTP - Raw Water	0.013
03-Jan-12	1	Thornbury WTP - Treated Water	0.247
03-Jan-12	1	Little Beaver River	0.26
03-Jan-12	1	Indian Brook	1.850
30-Jan-12	1	Thornbury WTP - Raw Water	0.294
30-Jan-12	1	Little Beaver River	1.10
30-Jan-12	1	Big Head River	1.10
30-Jan-12	1	Beaver River	0.897
30-Jan-12	1	Thornbury WTP - Treated Water	0.290
30-Jan-12	1	Indian Brook	2.33
06-Feb-12	1	Thornbury WTP - Raw Water	0.287
06-Feb-12	1	Thornbury WTP - Treated Water	0.338
5-Mar-12	1	Thornbury WTP - Raw Water	0.296
5-Mar-12	1	Little Beaver River	1.340
5-Mar-12	1	Big Head River	0.945
5-Mar-12	1	Beaver River	0.887
5-Mar-12	1	Indian Brook	1.79
5-Mar-12	1	Thornbury WTP - Treated Water	0.301
2-Apr-12	1	Thornbury WTP - Raw Water	0.282
2-Apr-12	1	Little Beaver River	0.998
2-Apr-12	1	Big Head River	1.02
2-Apr-12	1	Beaver River	0.506
2-Apr-12	1	Indian Brook	1.37
2-Apr-12	1	Thornbury WTP - Treated Water	0.277
7-May-12	1	Thornbury WTP - Treated Water	0.275
7-May-12	1	Thornbury WTP - Raw Water	0.259
4-Jun-12	1	Thornbury WTP - Treated Water	0.256
4-Jun-12	1	Thornbury WTP - Raw Water	0.250
3-Jul-12	1	Thornbury WTP - Raw Water	0.256
3-Jul-12	1	Little Beaver River	0.155
3-Jul-12	1	Big Head River	0.175
3-Jul-12	1	Beaver River	0.065
3-Jul-12	1	Indian Brook	0.264
3-Jul-12	1	Thornbury WTP - Treated Water	0.258
7-Aug-12	1	Thornbury WTP - Treated Water	0.251
7-Aug-12	1	Thornbury WTP - Raw Water	0.239
4-Sep-12	1	Thornbury WTP - Treated Water	0.229
4-Sep-12	1	Thornbury WTP - Raw Water	0.220
1-Oct-12	1	Thornbury WTP - Raw Water	0.225
1-Oct-12	1	Little Beaver River	0.654
1-Oct-12	1	Big Head River	0.214
1-Oct-12	1	Beaver River	0.137
1-Oct-12	1	Indian Brook	0.433
1-Oct-12	1	Thornbury WTP - Treated Water	0.226
5-Nov-12	1	Thornbury WTP - Raw Water	0.248
5-Nov-12	1	Thornbury WTP - Treated Water	0.261
3-Dec-12	1	Thornbury WTP - Treated Water	0.271
3-Dec-12	1	Thornbury WTP - Raw Water	0.259
3-Dec-12	1	Little Beaver River	1.580
3-Dec-12	1	Big Head River	0.860
3-Dec-12	1	Beaver River	0.958
3-Dec-12	1	Indian Brook	2.30



**Summary of Additional Sampling Results - 2012**

Sample for: Nitrite - Raw & Treated (mg/L)

Date	# of Samples	Location	Results / Range
03-Jan-12	1	Thornbury WTP - Raw Water	0.005
03-Jan-12	1	Little Beaver River	0.005
30-Jan-12	1	Thornbury WTP - Raw Water	0.005
30-Jan-12	1	Little Beaver River	0.005
30-Jan-12	1	Big Head River	0.005
30-Jan-12	1	Beaver River	0.005
30-Jan-12	1	Thornbury WTP - Treated Water	0.005
30-Jan-12	1	Indian Brook	0.005
06-Feb-12	1	Thornbury WTP - Raw Water	0.005
06-Feb-12	1	Thornbury WTP - Treated Water	0.005
5-Mar-12	1	Thornbury WTP - Raw Water	0.005
5-Mar-12	1	Little Beaver River	0.005
5-Mar-12	1	Big Head River	0.005
5-Mar-12	1	Beaver River	0.005
5-Mar-12	1	Indian Brook	0.005
5-Mar-12	1	Thornbury WTP - Treated Water	0.005
2-Apr-12	1	Thornbury WTP - Raw Water	0.005
2-Apr-12	1	Little Beaver River	0.024
2-Apr-12	1	Big Head River	0.005
2-Apr-12	1	Beaver River	0.005
2-Apr-12	1	Indian Brook	0.005
2-Apr-12	1	Thornbury WTP - Treated Water	0.005
7-May-12	1	Thornbury WTP - Treated Water	0.005
7-May-12	1	Thornbury WTP - Raw Water	<0.005
4-Jun-12	1	Thornbury WTP - Treated Water	0.005
4-Jun-12	1	Thornbury WTP - Raw Water	0.005
3-Jul-12	1	Thornbury WTP - Raw Water	0.005
3-Jul-12	1	Little Beaver River	0.005
3-Jul-12	1	Big Head River	0.005
3-Jul-12	1	Beaver River	0.005
3-Jul-12	1	Indian Brook	0.005
3-Jul-12	1	Thornbury WTP - Treated Water	0.005
7-Aug-12	1	Thornbury WTP - Raw Water	0.005
7-Aug-12	1	Thornbury WTP - Treated Water	0.005
4-Sep-12	1	Thornbury WTP - Treated Water	0.005
4-Sep-12	1	Thornbury WTP - Raw Water	0.005
1-Oct-12	1	Thornbury WTP - Raw Water	0.005
1-Oct-12	1	Little Beaver River	0.005
1-Oct-12	1	Big Head River	0.005
1-Oct-12	1	Beaver River	0.005
1-Oct-12	1	Indian Brook	0.005
1-Oct-12	1	Thornbury WTP - Treated Water	0.005
5-Nov-12	1	Thornbury WTP - Raw Water	0.005
5-Nov-12	1	Thornbury WTP - Treated Water	0.005
3-Dec-12	1	Thornbury WTP - Treated Water	0.005
3-Dec-12	1	Thornbury WTP - Raw Water	0.005
3-Dec-12	1	Little Beaver River	0.005
3-Dec-12	1	Big Head River	0.005
3-Dec-12	1	Beaver River	0.005
3-Dec-12	1	Indian Brook	0.005

**Ministry of the Environment**

Southwestern Region  
Technical Support Section  
Water Resources  
733 Exeter Rd  
London ON N6E 1L3  
Fax: (519)873-5020  
Tel: (519) 873-5000

**Ministère de l'Environnement**

Direction régionale du Sud-Ouest  
Bureau du Directeur Adjoint  
733 Exeter Rd  
London ON N6E 1L3  
Télécopieur: (519)873-5020  
Tél:(519) 873-5000



July 31, 2012

John Casivell

The Corporation of the Town of The Blue Mountains  
32 Mill St P.O. Box 310, Thornbury  
The Blue Mountains, ON N0H 2P0

Dear Mr. Casivell,

**RE: Permit to Take Water 2144-8WJJ5X**  
230 Peel St N, Thornbury  
The Blue Mountains, County of Grey  
Reference Number 8461-8TWNPS

RECEIVED

AUG 09 2012

ENGINEERING & PUBLIC WORKS  
TOWN OF THE BLUE MOUNTAINS

Please find attached a Permit to Take Water which authorizes the withdrawal of water in accordance with the application for this Permit to Take Water, dated April 12, 2012 and signed by John Casivell.

**This Permit to Take Water expires on August 31, 2022. Authorized rates and volumes of water taking are given in Table A.**

Ontario Regulation 387/04 (Water Taking) requires all water takers to report daily water taking amounts to the Water Taking Reporting System (WTRS) electronic database:

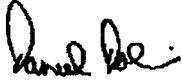
<http://www.ene.gov.on.ca/envision/water/pttw.htm>. Daily water taking must be reported on a calendar year basis. If no water is taken, then a "no taking" report must be entered. Please consult the Regulation and Section 4 of this Permit for monitoring requirements.

If you have questions about reporting requirements, please call the WTRS Help Desk at 416-235-6322 (toll free: 1-877-344-2011) or by email, [WTRSHelpdesk@ontario.ca](mailto:WTRSHelpdesk@ontario.ca). It is preferred that you submit your data directly and electronically to the WTRS. Where this is impracticable, please use the Water Taking Submission Form (included as Appendix C of the *Technical Bulletin: Permit To Take Water (PTTW) - Monitoring and Reporting of Water Takings*), which can be downloaded from the above web site, and fax your completed forms to 416-235-6549 or mail them to: Water User Reporting Section, 125 Resources Rd. Toronto, ON M9P 3V6.

Take notice that in issuing this Permit, terms and conditions pertaining to the taking of water and to the results of the taking have been imposed. The terms and conditions have been designed to allow for the development of water resources, while providing reasonable protection to existing water uses and users.



Yours truly,



---

Dan Dobrin  
Supervisor, Water Resources  
Southwestern Region

File Storage Number: SIGRBMC10.220

**PERMIT TO TAKE WATER**  
Surface Water  
NUMBER 2144-8WJJ5X

Pursuant to Section 34 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

The Corporation of the Town of The Blue Mountains  
32 Mill St P.O. Box 310, Thornbury  
The Blue Mountains, Ontario, N0H 2P0  
Canada

For the water  
taking from: Georgian Bay

Located at: 230 Peel St N Thornbury  
The Blue Mountains, County of Grey

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

**DEFINITIONS**

- (a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34, OWRA.
- (b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.
- (c) "Ministry" means Ontario Ministry of the Environment.
- (d) "District Office" means the Owen Sound District Office.
- (e) "Permit" means this Permit to Take Water No. 2144-8WJJ5X including its Schedules, if any, issued in accordance with Section 34 of the OWRA.
- (f) "Permit Holder" means The Corporation of the Town of The Blue Mountains.
- (g) "OWRA " means the *Ontario Water Resources Act*, R.S.O. 1990, c. O. 40, as amended.

You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:

## **TERMS AND CONDITIONS**

### **1. Compliance with Permit**

- 1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated April 12, 2012 and signed by John Casivell, and all Schedules included in this Permit.
- 1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.
- 1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.
- 1.4 This Permit is not transferable to another person.
- 1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.
- 1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.
- 1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

### **2. General Conditions and Interpretation**

#### **2.1 Inspections**

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act*, R.S.O. 1990, the *Pesticides Act*, R.S.O. 1990, or the *Safe Drinking Water Act*, S. O. 2002.

#### **2.2 Other Approvals**

The issuance of, and compliance with this Permit, does not:

- (a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act*, and

the *Environmental Protection Act* , and any regulations made thereunder; or

(b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

### 2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

(a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or

(b) acceptance by the Ministry of the information's completeness or accuracy.

### 2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

### 2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

### 2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

## 3. Water Takings Authorized by This Permit

### 3.1 Expiry

This Permit expires on **August 31, 2022**. No water shall be taken under authority of this Permit after the expiry date.

### 3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

**Table A**

	Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1	Georgian Bay	Lake	Municipal	Water Supply	14,400	24	18,662,400	365	17 543003 4935254
						<b>Total Taking:</b>	18,662,400		

**4. Monitoring**

4.1 The Permit Holder shall maintain a record of all water takings. This record shall include the dates and times of water takings, and the total measured amounts of water pumped per day for each day that water is taken under the authorization of this Permit. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The total amounts of water pumped shall be measured using a flow measuring device.

**5. Impacts of the Water Taking**

**5.1 Notification**

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

**5.2 For Surface-Water Takings**

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

**6. Director May Amend Permit**

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water*

*Resources Act , Section 100 (4).*

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.
2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.
3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

*In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, as amended, provides that the Notice requiring the hearing shall state:*

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*In addition to these legal requirements, the Notice should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The Permit to Take Water number;
6. The date of the Permit to Take Water;
7. The name of the Director;
8. The municipality within which the works are located;

*This notice must be served upon:*

*The Secretary  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto ON  
M5G 1E5  
Fax: (416) 314-4506  
Email: [ERTTribunalsecretary@ontario.ca](mailto:ERTTribunalsecretary@ontario.ca)*

*AND*

*The Director, Section 34  
Ministry of the Environment  
733 Exeter Rd  
London ON N6E 1L3  
Fax: (519)873-5020*

*Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:*

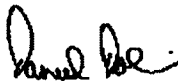
*by telephone at (416) 314-4600*

*by fax at (416) 314-4506*

*by e-mail at [www.ert.gov.on.ca](http://www.ert.gov.on.ca)*

This Permit cancels and replaces Permit Number 4176-7DJJZG, issued on 2008/04/28 12:00:00 AM.

Dated at London this 31st day of July, 2012.



Dan Dobrin  
Director, Section 34  
*Ontario Water Resources Act*, R.S.O. 1990

**Schedule A**

**This Schedule "A" forms part of Permit To Take Water 2144-8WJJ5X, dated July 31, 2012.**



