

STAFF REPORT: ENGINEERING AND PUBLIC WORKS DEPARTMENT

REPORT TO: Infrastructure & Recreation Committee
MEETING DATE: February 14, 2012
REPORT NO.: EPW.12.005
SUBJECT: 2011 Water Summary Report
PREPARED BY: Meg Boyd, Compliance & Efficiency Coordinator

A. Recommendation

THAT Council receives Report EPW.12.005 entitled “2011 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 31st 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 2011 period, including monthly average and maximum daily flows as well as daily instantaneous peak flow rates. A comparison of the summary to the related 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 31st of each calendar year.

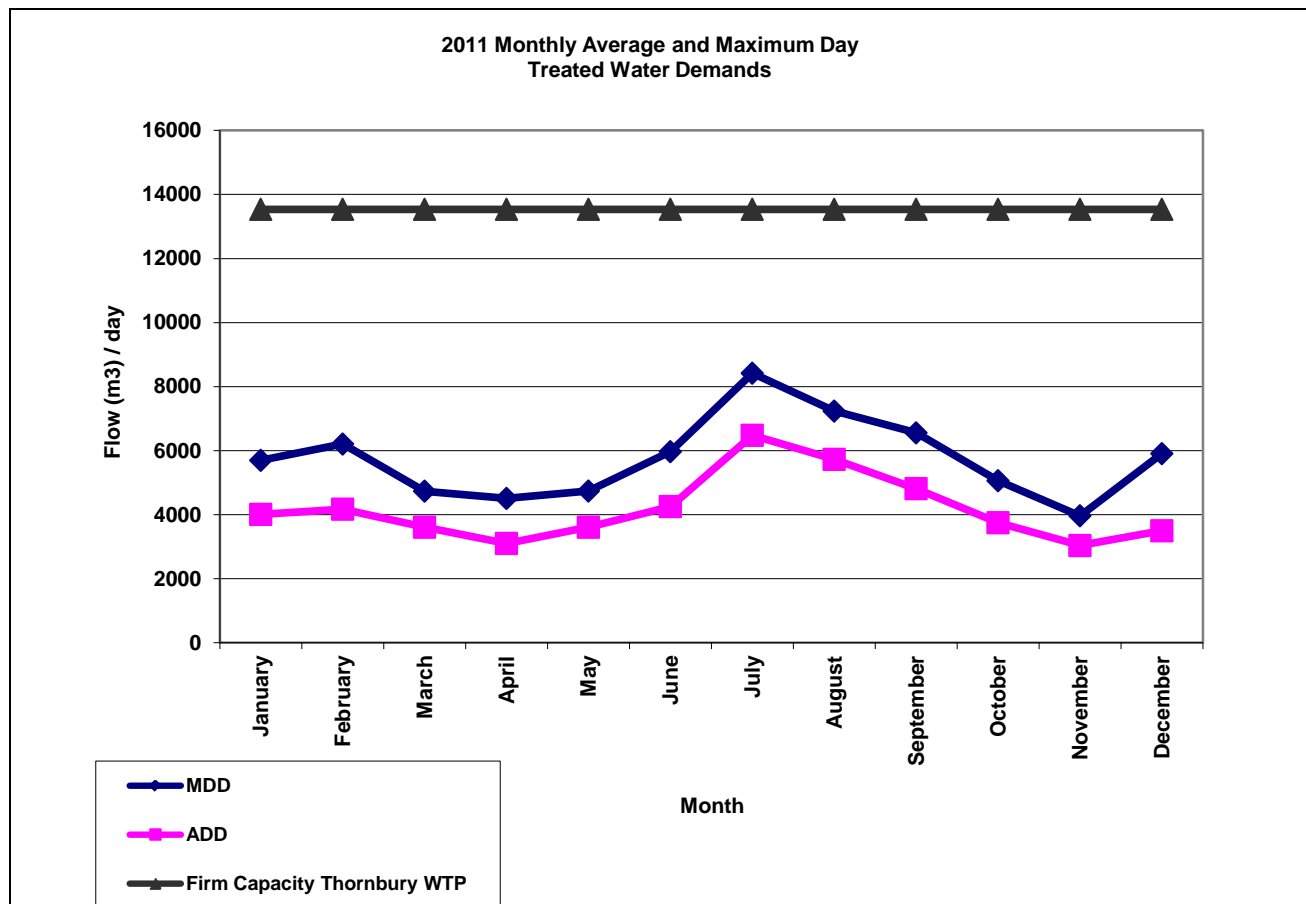
This Report is specific to the Thornbury Water Treatment Plant (WTP) located at 230 Peel Street, its associated distribution system in the Lora Bay, Clarksburg, Thornbury, Camperdown and Craighleith Service Areas and the supplemental supply received from the Town of Collingwood.

Until November 2010, the system operated under 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 11-101. 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 shall purchase a minimum of 4,000 cubic meters of water on average for each day until January 2015 at which point the Town may 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 water supply to meet maximum daily demands throughout the year.

Summary of Treated Flows



*MDD = Maximum Daily Demand, ADD = Average Day Demand
 **Firm Capacity does not include Collingwood Supply of 4,000 m³/day

A final requirement of the Drinking Water Quality Management System (DWQMS) is the preparation of a Financial Plan which calls for Municipalities to plan for the long-term financial sustainability of their drinking water systems. The Town's Water Financial Plan was endorsed by Council on May 9, 2011 and a copy was submitted to the Ministry of Municipal Affairs and Housing as required by legislation.

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 2011-2012 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 # 2 "Addressing the Town Municipal Infrastructure Needs" and Goal # 6 "Providing a Strong, Well-Managed Municipal Government."

D. Environmental Impacts

None

E. Budget Impact

None

F. In Consultation With

John Caswell, Manager of Water and Wastewater Services

G. Attached

1. 2011 Water Summary Report

Respectfully submitted

Meg Boyd

Meg Boyd
Compliance & Efficiency Coordinator
Office: 519-599-1226
Fax: 519-599-2938
mboyd@thebluemountains.ca

Reg Russwurm

Reg Russwurm
Director, Engineering and Public Works



2011 Water Summary Report

*The Blue Mountains
Water Division*

Waterworks Number: 220001762

Reporting Period: January 1, 2011 – December 31, 2011



TABLE OF CONTENTS

Executive Summary.....	3
Waterworks Description.....	4
Compliance.....	4
Schedule C: System-Specific Conditions.....	5
Schedule D: Conditions for Relief from Regulatory Requirements.....	7
Notifications of Adverse Water Quality Events.....	7
Summary of the Quantity of Water Supplied During the Reporting Period.....	8
Operational Overview.....	11

Appendices

Appendix A	Weekly Sampling Plan
Appendix A-1	Winter Sampling Plan
Appendix B	2011 Summary of Treated Water Flows from the Thornbury Water Treatment Plant
Appendix C	2011 Summary of Supplemental Supply from the Town of Collingwood
Appendix D	2011 Summary of Raw Water Flows from the Thornbury Water Treatment Plant
Appendix E	2011 Maximum Raw Daily Flow Rates Expressed as a Percentage of Capacity
Appendix F	2011 Annual Water Report
Appendix G	Permit to Take Water No. 4176-7DJJZG



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, Craigleith 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. On November 10, 2010, the Town was

issued Permit Number 111-201 and License Number 111-101. The newly introduced 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. The water purchase agreement signed by the Town and the Town of Collingwood states the Town shall purchase a minimum of 4,000 cubic meters of water on average for each day until January 2015.

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 Canadian General Standards Board (CGSB) is currently contracted to perform third-party audits.
- 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.

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. A third-party auditor will conduct a desktop audit and on-site verification to assess whether the QMS meets the PLAN and DO requirements for all twenty-one elements of the DWQMS. As of January 2012, the Town is still awaiting notification from the third-party auditor as to the date the audit will occur.

During 2011 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 and Wastewater Services Division. 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 m³*

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 with an annual average of 10 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/cm² is maintained. A dosage of less than 40 mJ/cm² 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 plan¹ dictates the weekly sampling locations and is reviewed and revised as necessary. During the winter months, a winter sampling plan² 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

¹ Refer to Appendix A – Sampling Locations

² Refer to Appendix A-1 – Winter Sampling Locations

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 collected samples for lead testing in July and August 2011 in accordance with the Reduced Sampling Table outlined in Ontario Regulation 170/03.

None of the samples collected exceeded the Ontario drinking water quality standard for lead which is 10 micrograms per litre.

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

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

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 27, 2011. 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 2011-2012 reporting period.

Notifications of Adverse Water Quality Events

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 Reporting Adverse Water Quality Results ~ Notification by Laboratory Procedure.

On October 5, 2011, Operators received notification from our accredited laboratory that a treated water sample collected from the Thornbury Water Treatment Plant contained 1.09 NTU. Operators responded immediately by checking all the drinking water system's filters and turbidity monitoring equipment. Additionally, Operators also reviewed the upstream operational process. Both the Ministry of Health and 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 2011 reporting period. The Thornbury Water Treatment Plant services a population of approximately 17,463 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 2011 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

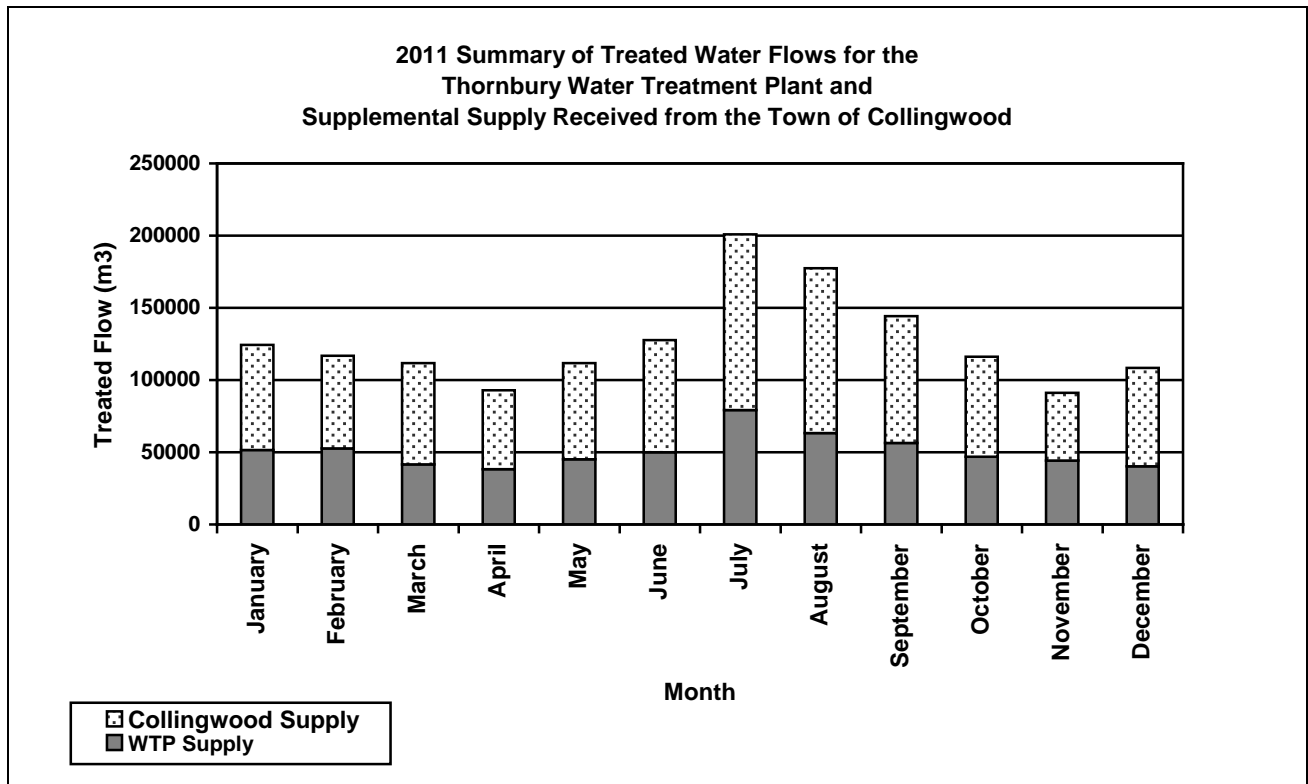
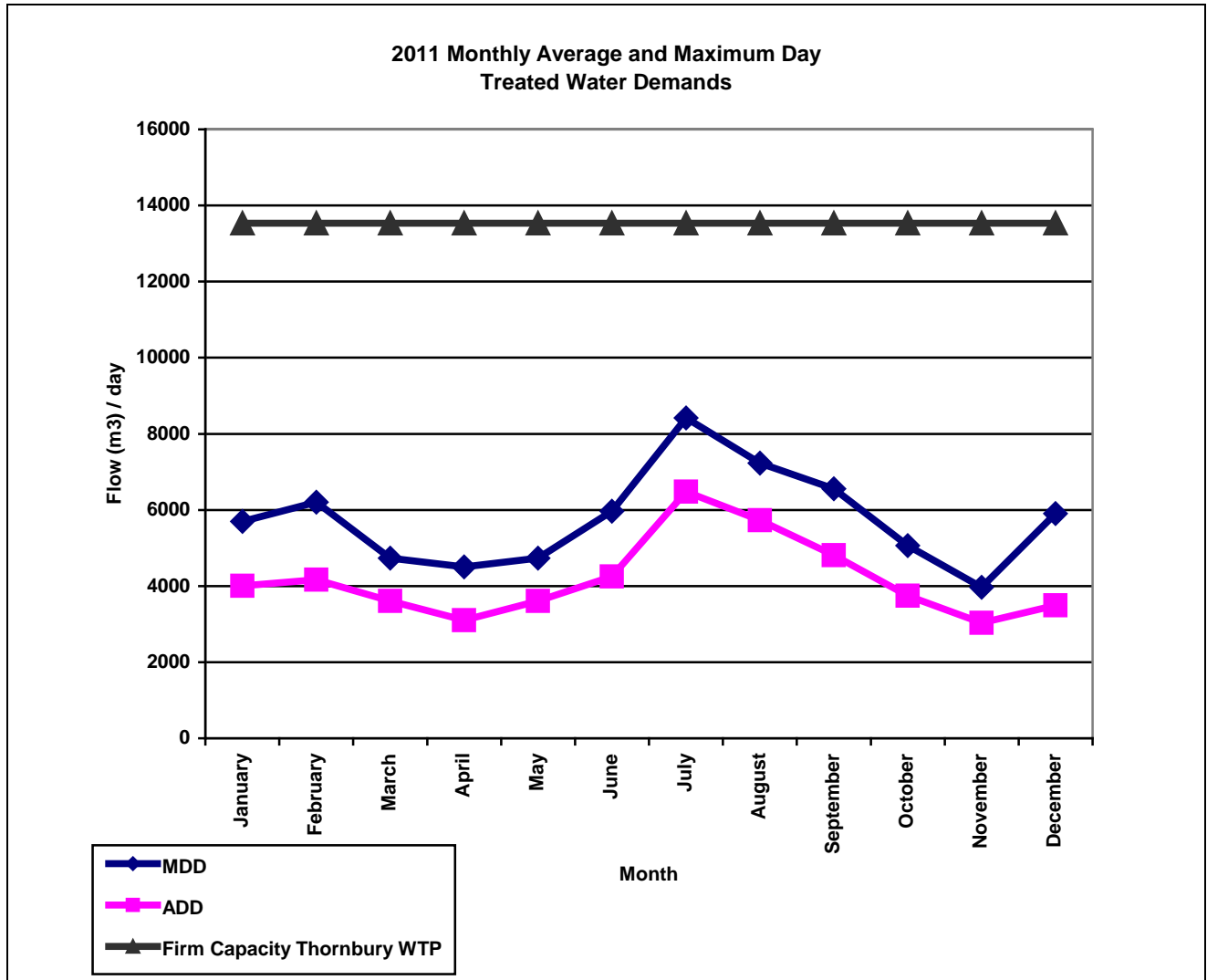


Chart No. 2 reflects the monthly average daily demands (ADD) and monthly maximum daily demands (MDD) for the treated water at the Thornbury WTP as well as the supplemental supply received from the Town of Collingwood.

Chart No. 2



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

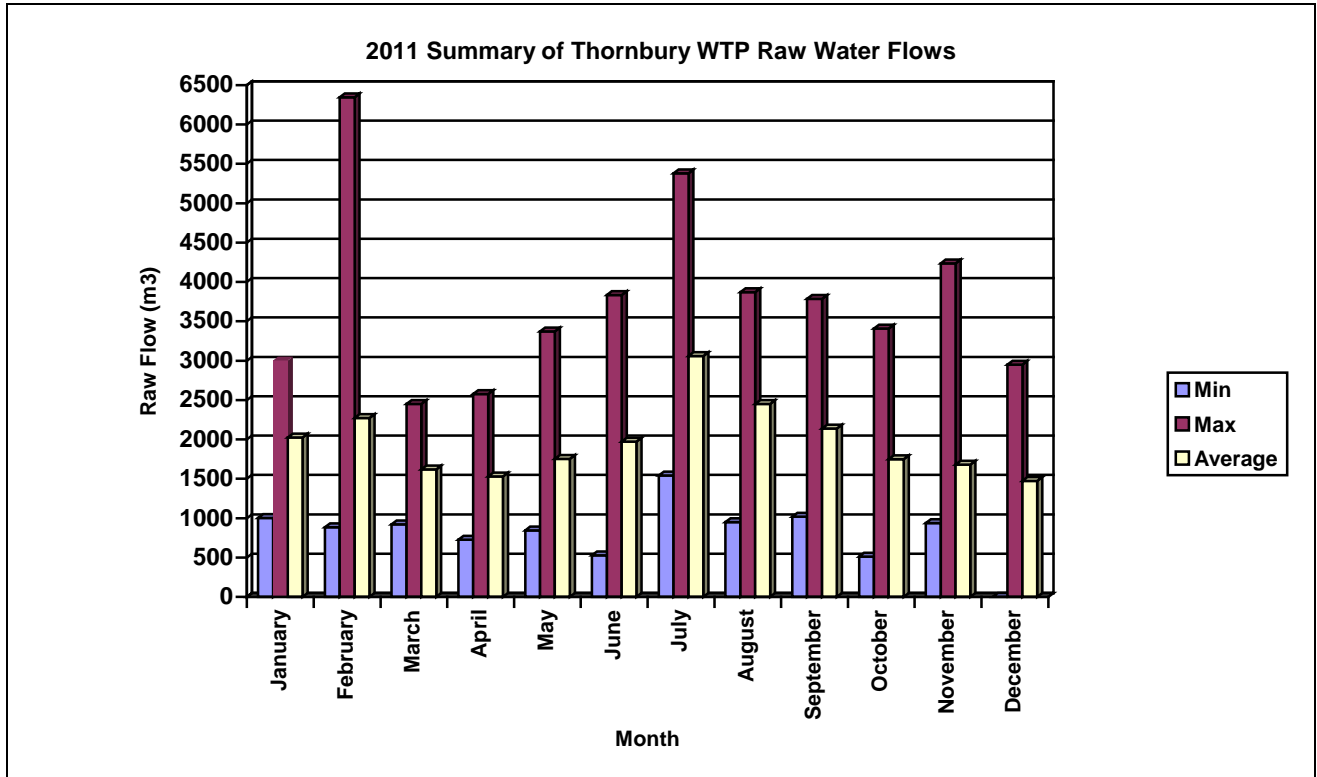
**Firm Capacity does not include Collingwood Supply of 4,000 m³/day

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 2011, 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 2011 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 (2) two watermain breaks in the 2011 reporting period. The breaks occurred in the Thornbury area on cast iron pipe. Both breaks were repaired with minimal water service interruption to consumers.

Completion of a comprehensive leak detection survey of the Town's water distribution system.

Replacement of (2) two gas chlorinators at the Thornbury Water Treatment Plant

Construction of approximately 115 m of 150mm diameter watermain including appurtenances and reinstatement on King Street in Thornbury.



Sampling Locations

Week # 1	Week # 2	Week # 3	Week # 4	Week # 5
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

Week # 1	Week # 2	Week # 3	Week # 4	Week # 5
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
Town Hall	Town Hall	Town Hall	Town Hall	Town Hall
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

Compliance Report - 2011 Summary of Treated Water Flows

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	2001	1367	1209	1498	1813	1416	1440	3270	1553	1220	1341	1072
2nd	2082	947	982	1132	1187	1578	3257	2171	3200	1366	1090	1355
3rd	1996	1455	566	1000	1084	1966	2802	1552	1167	1491	1316	1012
4th	964	4587	1713	1394	1527	1450	2710	1292	2793	1092	1783	1586
5th	2296	2061	1242	1549	1509	1283	1866	3005	1883	932	1245	1387
6th	1244	3311	1984	1222	1551	823	1308	3010	3373	1562	1123	1185
7th	1396	1208	773	830	711	1814	1388	2129	1648	1792	1020	1134
8th	1769	1635	1059	1210	774	1584	2236	769	2143	1607	1423	1205
9th	2359	1007	1075	1088	2093	2419	2216	2351	2426	1372	640	1174
10th	1362	745	2068	1143	1576	1595	2713	1670	2297	1859	1214	1627
11th	1528	1804	1167	1188	1844	1258	1285	2465	2270	1497	1024	981
12th	1425	2348	1432	1554	1024	1691	2599	1823	1586	2517	1314	1262
13th	1355	2098	1404	1155	1949	2291	2583	2279	2062	1033	1088	850
14th	1321	949	1039	1343	830	1865	1949	1890	1302	2679	1833	852
15th	1881	1600	1128	2166	766	1540	3249	1939	1728	749	1177	1417
16th	2102	1457	1327	828	2821	936	2842	2121	828	2758	2458	1193
17th	1390	1400	1633	827	1391	2752	3980	1710	2206	1663	930	738
18th	1013	1742	1770	1530	1112	2646	2141	2279	1680	368	2607	1058
19th	1705	2054	1526	1337	1577	3036	2701	2490	1883	1046	3749	0
20th	1240	5296	1748	728	1126	3182	3212	2816	1490	1452	2270	0
21st	1484	3272	897	1692	1586	2075	3207	1657	1682	1873	2111	2612
22nd	1968	2005	1238	1897	1175	1268	3236	1857	1678	2117	1302	1996
23rd	1962	774	1363	1320	2172	1655	4290	2137	1672	2344	1371	1500
24th	1281	1516	1338	603	813	986	4463	1480	1700	1932	1190	1436
25th	1144	1046	1261	1683	2037	451	1282	2047	1236	786	1212	1774
26th	2118	1454	1309	848	1200	778	2282	1782	1954	883	1095	842
27th	2430	1822	1844	1590	1466	876	2190	2237	2232	1488	1102	1738
28th	2027	1663	1223	1304	1470	1518	2066	2298	1814	1689	1583	1407
29th	841		1243	1222	1340	975	3350	1508	1580	1291	1286	1998
30th	2529		1278	1353	1624	2281	1348	1508	1302	1111	1411	1580
31st	1294		1810		1895		3056	1827		1258		2225
Total	51507	52623	41649	38234	45043	49988	79247	63369	56368	46827	44308	40196
Average	1662	1879	1344	1274	1453	1666	2556	2044	1879	1511	1477	1297
Max	2529	5296	2068	2166	2821	3182	4463	3270	3373	2758	3749	2612
Min	841	745	566	603	711	451	1282	769	828	368	640	0

All flows are in cubic meters

Compliance Report - 2011 Summary of Supplemental Flows from Town of Collingwood

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	3522	2188	2203	1377	1809	2016	3960	3963	2679	3016	1585	1338
2nd	3381	1787	2098	2261	1836	2077	3958	3900	3324	2898	1539	1563
3rd	2210	2382	1921	2088	1778	2184	3953	3750	3615	2585	2357	1835
4th	2117	664	2556	1565	1717	2720	3961	3490	3760	2731	1670	1742
5th	1854	2748	3093	1352	1920	2434	3669	3861	3121	2402	2322	1599
6th	1828	2853	2749	2162	2339	2275	3934	3984	2367	2397	1736	1656
7th	2243	2297	2325	1769	2975	2417	3954	3713	2836	2877	1693	1391
8th	3054	2378	1960	1863	1989	1599	3738	3145	3244	3344	1701	1655
9th	2838	2429	1772	2197	1813	1660	3949	3347	3060	3589	1524	1353
10th	1681	1892	1796	1788	2065	2571	3957	3153	2954	2921	1984	2213
11th	1470	2614	2138	1352	1897	2862	3781	3772	2517	2815	1565	1747
12th	2292	3001	3084	1242	1872	2791	3757	3939	3862	2542	2562	1532
13th	1639	2923	3005	1606	2336	2326	3950	3999	2926	1806	2031	1536
14th	2428	1782	3058	1965	2588	2248	3970	4000	2678	2020	1139	1732
15th	3148	1555	3092	2339	2441	2563	3815	3832	2650	1323	1585	1668
16th	2697	1922	2681	1946	1294	2757	3961	3761	2937	2019	1479	1830
17th	1925	1652	2769	2012	2492	2211	3957	3953	3176	2902	1085	2694
18th	2019	2628	2375	1486	2009	2151	3948	3954	3232	2892	910	2752
19th	1252	3185	3119	1739	2274	2083	3963	3957	2921	831	12	2895
20th	2189	908	2547	1762	2601	1322	3953	3949	2506	1392	6	2471
21st	2279	1709	2096	1530	3150	2308	3970	3131	2430	2273	980	1937
22nd	3154	2153	1545	2111	3149	2152	3950	2796	3090	1427	1804	663
23rd	2932	2695	1659	2675	2320	2901	3964	3063	2667	1291	2180	2628
24th	2044	2597	1635	2386	2051	3438	3953	3942	2717	2251	1731	2857
25th	2144	2648	2062	1635	1805	3947	3957	2971	2399	2210	1793	2868
26th	1046	3279	2405	1211	1710	3627	3959	3963	3173	1840	2128	3070
27th	1852	2935	2081	1394	2033	3790	3931	3622	2392	1442	1759	3155
28th	2767	2321	1696	1927	2697	3366	3957	4003	2714	1512	935	3094
29th	3214		1895	1862	2274	3098	3880	3631	3015	1692	1203	3276
30th	3166		1406	2175	1959	3685	3963	3689	3010	2001	1723	3734
31st	2340		1333		1566		3958	3910		2083		3680
Total	72725	64125	70154	54777	66759	77579	121530	114143	87972	69324	46721	68164
Average	2346	2290	2263	1826	2154	2586	3920	3682	2932	2236	1557	2199
Max	3522	3279	3119	2675	3150	3947	3970	4003	3862	3589	2562	3734
Min	1046	664	1333	1211	1294	1322	3669	2796	2367	831	6	663

All flows are in cubic meters

Compliance Report - 2011 Summary of Raw Water Flows

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	2386	1617	1427	1773	2185	1688	1691	3871	1763	1382	1494	1193
2nd	2624	1133	1153	1348	1423	1868	3899	2600	3601	1524	1306	1508
3rd	2383	2024	989	1192	1297	2349	3371	1868	1352	1673	1500	1124
4th	1151	5502	2091	1644	1813	1721	3218	1546	3235	1233	1994	1781
5th	2756	2457	1469	1830	1870	1521	2281	3701	2146	1059	1387	1575
6th	1866	3973	2374	1447	1913	973	1564	3646	3784	1849	1258	1324
7th	1818	1431	919	1005	842	2133	1676	2552	1870	2012	1146	1380
8th	2127	1936	1240	1503	927	1863	2642	948	2425	1799	1393	1374
9th	2841	1327	1298	1281	2495	2836	2636	2838	2728	1561	939	1351
10th	1947	884	2452	1373	1871	1968	3249	2007	2581	2092	1384	1821
11th	1829	2126	1376	1597	2199	1436	1540	2915	2583	1700	1165	1121
12th	1693	2826	1670	1866	1222	1839	3126	2187	1804	3088	1475	1411
13th	1620	2517	1683	1376	2311	2411	3048	2743	2345	1432	1268	971
14th	1558	1252	1228	1591	975	2007	2395	2301	1473	3410	2091	1031
15th	2239	2012	1352	2576	918	1765	3844	2319	1977	852	1345	1582
16th	2528	1775	1551	970	3370	1134	3375	2512	1020	3117	2766	1340
17th	1665	1659	1935	993	1649	3278	4728	2056	2502	1892	1139	821
18th	1191	2072	2108	1808	1388	3182	2524	2733	1904	510	2955	1203
19th	2144	2441	1829	1610	1892	3651	3200	2991	2142	1273	4234	0
20th	1486	6346	2086	834	1345	3834	3825	3381	1673	1688	2567	0
21st	1766	3931	1156	2020	1882	2447	3823	1991	1896	2134	2383	2950
22nd	2339	2494	1609	2265	1390	1613	3859	2226	2119	2407	1483	2253
23rd	2358	1021	1619	1585	2602	2123	5186	2558	1899	2658	1557	1680
24th	1524	1794	1578	725	1184	1167	5382	1778	1927	2187	1359	1691
25th	1372	1235	1499	1994	2528	527	1663	2457	1409	892	1372	2026
26th	2511	1720	1557	1171	1535	924	2781	2140	2198	1008	1219	950
27th	2991	2173	2212	1874	1732	1131	2624	2681	2512	1743	1259	1966
28th	2408	1982	1449	1565	1757	1835	2459	2769	2032	1889	1779	1578
29th	1004		1473	1469	1600	1154	3978	1811	1770	1460	1447	2276
30th	3004		1583	1590	1925	2722	1618	1798	1478	1253	1692	1854
31st	1650		2154		2268		3686	2081		1443		2500
Total	62779	63660	50119	45875	54308	59100	94891	76005	64148	54220	50356	45635
Avg	2025	2274	1617	1529	1752	1970	3061	2452	2138	1749	1679	1472
High	3004	6346	2452	2576	3370	3834	5382	3871	3784	3410	4234	2950
Low	1004	884	919	725	842	527	1540	948	1020	510	939	0

All flows are in cubic metres

2011 Maximum Raw Daily Flow Rates Expressed as a Percentage of Capacity (13,536 m³ 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	2386	17.63	1617	11.95	1427	10.54	1773	13.10	2185	16.14	1688	12.47	1691	12.49	3871	28.60	1763	13.02	1382	10.21	1494	11.04	1193	8.81
2nd	2624	19.39	1133	8.37	1153	8.52	1348	9.96	1423	10.51	1868	13.80	3899	28.80	2600	19.21	3601	26.60	1524	11.26	1306	9.65	1508	11.14
3rd	2383	17.60	2024	14.95	989	7.31	1192	8.81	1297	9.58	2349	17.35	3371	24.90	1868	13.80	1352	9.99	1673	12.36	1500	11.08	1124	8.30
4th	1151	8.50	5502	40.65	2091	15.45	1644	12.15	1813	13.39	1721	12.71	3218	23.77	1546	11.42	3235	23.90	1233	9.11	1994	14.73	1781	13.16
5th	2756	20.36	2457	18.15	1469	10.85	1830	13.52	1870	13.82	1521	11.24	2281	16.85	3701	27.34	2146	15.85	1059	7.82	1387	10.25	1575	11.64
6th	1866	13.79	3973	29.35	2374	17.54	1447	10.69	1913	14.13	973	7.19	1564	11.55	3646	26.94	3784	27.96	1849	13.66	1258	9.29	1324	9.78
7th	1818	13.43	1431	10.57	919	6.79	1005	7.42	842	6.22	2133	15.76	1676	12.38	2552	18.85	1870	13.82	2012	14.86	1146	8.47	1380	10.20
8th	2127	15.71	1936	14.30	1240	9.16	1503	11.10	927	6.85	1863	13.76	2642	19.52	948	7.00	2425	17.92	1799	13.29	1393	10.29	1374	10.15
9th	2841	20.99	1327	9.80	1298	9.59	1281	9.46	2495	18.43	2836	20.95	2636	19.47	2838	20.97	2728	20.15	1561	11.53	939	6.94	1351	9.98
10th	1947	14.38	884	6.53	2452	18.11	1373	10.14	1871	13.82	1968	14.54	3249	24.00	2007	14.83	2581	19.07	2092	15.46	1384	10.22	1821	13.45
11th	1829	13.51	2126	15.71	1376	10.17	1597	11.80	2199	16.25	1436	10.61	1540	11.38	2915	21.54	2583	19.08	1700	12.56	1165	8.61	1121	8.28
12th	1693	12.51	2826	20.88	1670	12.34	1866	13.79	1222	9.03	1839	13.59	3126	23.09	2187	16.16	1804	13.33	3088	22.81	1475	10.90	1411	10.42
13th	1620	11.97	2517	18.59	1683	12.43	1376	10.17	2311	17.07	2411	17.81	3048	22.52	2743	20.26	2345	17.32	1432	10.58	1268	9.37	971	7.17
14th	1558	11.51	1252	9.25	1228	9.07	1591	11.75	975	7.20	2007	14.83	2395	17.69	2301	17.00	1473	10.88	3410	25.19	2091	15.45	1031	7.62
15th	2239	16.54	2012	14.86	1352	9.99	2576	19.03	918	6.78	1765	13.04	3844	28.40	2319	17.13	1977	14.61	852	6.29	1345	9.94	1582	11.69
16th	2528	18.68	1775	13.11	1551	11.46	970	7.17	3370	24.90	1134	8.38	3375	24.93	2512	18.56	1020	7.54	3117	23.03	2766	20.43	1340	9.90
17th	1665	12.30	1659	12.26	1935	14.30	993	7.34	1649	12.18	3278	24.22	4728	34.93	2056	15.19	2502	18.48	1892	13.98	1139	8.41	821	6.07
18th	1191	8.80	2072	15.31	2108	15.57	1808	13.36	1388	10.25	3182	23.51	2524	18.65	2733	20.19	1904	14.07	510	3.77	2955	21.83	1203	8.89
19th	2144	15.84	2441	18.03	1829	13.51	1610	11.89	1892	13.98	3651	26.97	3200	23.64	2991	22.10	2142	15.82	1273	9.40	4234	31.28	0	0.00
20th	1486	10.98	6346	46.88	2086	15.41	834	6.16	1345	9.94	3834	28.32	3825	28.26	3381	24.98	1673	12.36	1688	12.47	2567	18.96	0	0.00
21st	1766	13.05	3931	29.04	1156	8.54	2020	14.92	1882	13.90	2447	18.08	3823	28.24	1991	14.71	1896	14.01	2134	15.77	2383	17.60	2950	21.79
22nd	2339	17.28	2494	18.42	1609	11.89	2265	16.73	1390	10.27	1613	11.92	3859	28.51	2226	16.45	2119	15.65	2407	17.78	1483	10.96	2253	16.64
23rd	2358	17.42	1021	7.54	1619	11.96	1585	11.71	2602	19.22	2123	15.68	5186	38.31	2558	18.90	1899	14.03	2658	19.64	1557	11.50	1680	12.41
24th	1524	11.26	1794	13.25	1578	11.66	725	5.36	1184	8.75	1167	8.62	5382	39.76	1778	13.14	1927	14.24	2187	16.16	1359	10.04	1691	12.49
25th	1372	10.14	1235	9.12	1499	11.07	1994	14.73	2528	18.68	527	3.89	1663	12.29	2457	18.15	1409	10.41	892	6.59	1372	10.14	2026	14.97
26th	2511	18.55	1720	12.71	1557	11.50	1171	8.65	1535	11.34	924	6.83	2781	20.55	2140	15.81	2198	16.24	1008	7.45	1219	9.01	950	7.02
27th	2991	22.10	2173	16.05	2212	16.34	1874	13.84	1732	12.80	1131	8.36	2624	19.39	2681	19.81	2512	18.56	1743	12.88	1259	9.30	1966	14.52
28th	2408	17.79	1982	14.64	1449	10.70	1565	11.56	1757	12.98	1835	13.56	2459	18.17	2769	20.46	2032	15.01	1889	13.96	1779	13.14	1578	11.66
29th	1004	7.42			1473	10.88	1469	10.85	1600	11.82	1154	8.53	3978	29.39	1811	13.38	1770	13.08	1460	10.79	1447	10.69	2276	16.81
30th	3004	22.19			1583	11.69	1590	11.75	1925	14.22	2722	20.11	1618	11.95	1798	13.28	1478	10.92	1253	9.26	1692	12.50	1854	13.70
31st	1650	12.19			2154	15.91			2268	16.76			3686	27.23	2081	15.37			1443	10.66			2500	18.47

Avg	2025	2274	1617	1529	1752	1970	3061	2452	2138	1749	1679	1472
High	3004	6346	2452	2576	3370	3834	5382	3871	3784	3410	4234	2950
Low	1004	884	919	725	842	527	1540	948	1020	510	939	0

All flows are in cubic metres



APPENDIX F

ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220001762
Drinking-Water System Name:	The Blue Mountains Drinking Water System
Drinking-Water System Owner:	Town of The Blue Mountains
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2011 – December 31, 2011

<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 [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</p> <p style="text-align: center;">Town Website www.thebluemountains.ca</p> </div>	<p><u>Complete for all other Categories.</u></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>
---	---

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 m³ 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 m³. The Tower level supplies water pressure to the 10th Line Booster Station, Thornbury Reservoir, Camperdown Court Booster Station and Arrowhead Road Booster Station.

10th Line Booster Station

A booster Station and re-chlorination facility is located at the 10th Concession and Highway No. 26 and is referred to as the 10th 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 m³.

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 m³ 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

Arrowhead Road Booster Station Siding Replacement

Replacement of approximately 2,000 square feet of existing wood siding at the Arrowhead Road Booster Station

Expended this year: \$24,286.52

Gas Chlorinators – Thornbury Water Treatment Plant

Supply, delivery and commissioning of (2) two gas chlorinators to replace existing chlorinators installed in 1987.

Expended this year: \$22,599.88

Peel Street, Highway 26 Watermain Replacement

Relocation of approximately 8m of 150mm (6”) water main at the intersection of Hwy. 26 and Peel Street due to the MTO realignment of the intersection.

Expended this year: \$11,888.21

King Street Watermain Extension

Installation and continuation of watermain (Victoria dead end to Elma Street 130 meters) to eliminate a substandard line and provide looping with 150mm PVC on King Street.

Expended this year: \$85,631.21

Purchase of Replacement Vehicle

Replacement of a 2003 4x4 ½ Ton that reached the end of its useful life

Expended this year: \$28,187.52

Leak Detection Survey

Provision of a comprehensive leak detection survey of the Town’s distribution system.

Expended this year: \$10,984.11

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
3-Oct-11	Turbidity	1.09	NTU	Immediately checked all the drinking water system’s filters and turbidity monitoring equipment	3-Oct-11



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 13	0 – 480	0	
Treated	52	0	0	52	0 to 3
Distribution	568	0	0	421	0 to 600

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			
Rack 1	8760	0.027 to 0.481	NTU
Rack 2	8760	0.019 to 0.989	NTU
Rack 3	8760	0.010 to 0.989	NTU
Chlorine			
Finish	8760	0.68 to 2.00	mg/L
Thornbury Reservoir	8760	0.78 to 2.00	mg/L
10th Line Booster Station	8760	0.88 to 2.50	mg/L
Arrowhead Road Booster Station	8760	0.41 to 1.92	mg/L
Arrowhead Road Booster Station By-pass	8760	0.63 to 2.44	mg/L
Happy Valley Booster Station	8760	0.85 to 2.47	mg/L
Camperdown Reservoir	8760	0.98 to 2.67	mg/L
Mountain Road Booster Station	8760	0.78 to 2.74	mg/L
Distribution	5343	0.09 to 1.99	mg/L
Fluoride (If the DWS provides fluoridation)			

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

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	30-Mar-11	0.02	ug/L	No
Arsenic	30-Mar-11	0.4	ug/L	No
Barium	30-Mar-11	12.7	ug/L	No
Boron	30-Mar-11	13	ug/L	No
Cadmium	30-Mar-11	0.004	ug/L	No
Chromium	30-Mar-11	0.5	ug/L	No
*Lead				
Mercury	30-Mar-11	0.02	ug/L	No
Selenium	30-Mar-11	1	ug/L	No
Sodium	7-April-08	4.0	ug/L	No
Uranium	30-Mar-11	0.174	ug/L	No
Fluoride	29-Mar-10	0.08	mg/L	No
Nitrite	5-Dec-11	0.005	ug/L	No
Nitrate	5-Dec-11	0.286	ug/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	33	0.07 to 2.15	mg/L	0
Distribution	8	0.04 to 2.70	mg/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	30-Mar-11	0.02	ug/L	No
Aldicarb	30-Mar-11	0.01	ug/L	No
Aldrin + Dieldrin	30-Mar-11	0.01	ug/L	No
Atrazine + N-dealkylated metabolites	30-Mar-11	0.02	ug/L	No
Azinphos-methyl	30-Mar-11	0.02	ug/L	No
Bendiocarb	30-Mar-11	0.01	ug/L	No
Benzene	30-Mar-11	0.32	ug/L	No
Benzo(a)pyrene	30-Mar-11	0.004	ug/L	No
Bromoxynil	30-Mar-11	0.33	ug/L	No
Carbaryl	30-Mar-11	0.01	ug/L	No
Carbofuran	30-Mar-11	0.01	ug/L	No
Carbon Tetrachloride	30-Mar-11	0.16	ug/L	No
Chlordane (Total)	30-Mar-11	0.01	ug/L	No
Chlorpyrifos	30-Mar-11	0.02	ug/L	No
Cyanazine	30-Mar-11	0.03	ug/L	No
Diazinon	30-Mar-11	0.02	ug/L	No
Dicamba	30-Mar-11	0.20	ug/L	No
1,2-Dichlorobenzene	30-Mar-11	0.41	ug/L	No
1,4-Dichlorobenzene	30-Mar-11	0.36	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	30-Mar-11	0.01	ug/L	No
1,2-Dichloroethane	30-Mar-11	0.35	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	30-Mar-11	0.33	ug/L	No
Dichloromethane	30-Mar-11	0.35	ug/L	No
2-4 Dichlorophenol	30-Mar-11	0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	30-Mar-11	0.19	ug/L	No
Diclofop-methyl	30-Mar-11	0.40	ug/L	No
Dimethoate	30-Mar-11	0.03	ug/L	No
Dinoseb	30-Mar-11	0.36	ug/L	No
Diquat	30-Mar-11	1	ug/L	No
Diuron	30-Mar-11	0.03	ug/L	No
Glyphosate	30-Mar-11	6	ug/L	No
Heptachlor + Heptachlor Epoxide	30-Mar-11	0.01	ug/L	No
Lindane (Total)	30-Mar-11	0.01	ug/L	No
Malathion	30-Mar-11	0.02	ug/L	No
Methoxychlor	30-Mar-11	0.01	ug/L	No
Metolachlor	30-Mar-11	0.01	ug/L	No
Metribuzin	30-Mar-11	0.02	ug/L	No
Monochlorobenzene	30-Mar-11	0.30	ug/L	No
Paraquat	30-Mar-11	1	ug/L	No

Parathion	30-Mar-11	0.02	ug/L	No
Pentachlorophenol	30-Mar-11	0.15	ug/L	No
Phorate	30-Mar-11	0.01	ug/L	No
Picloram	30-Mar-11	0.25	ug/L	No
Polychlorinated Biphenyls(PCB)	30-Mar-11	0.04	ug/L	No
Prometryne	30-Mar-11	0.03	ug/L	No
Simazine	30-Mar-11	0.01	ug/L	No
THM (NOTE: show latest annual average)	5-Dec-11	39	ug/L	No
Temephos	30-Mar-11	0.01	ug/L	No
Terbufos	30-Mar-11	0.01	ug/L	No
Tetrachloroethylene	30-Mar-11	0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	30-Mar-11	0.14	ug/L	No
Triallate	30-Mar-11	0.01	ug/L	No
Trichloroethylene	30-Mar-11	0.43	ug/L	No
2,4,6-Trichlorophenol	30-Mar-11	0.33	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	30-Mar-11	0.22	ug/L	No
Trifluralin	30-Mar-11	0.02	ug/L	No
Vinyl Chloride	30-Mar-11	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
Trihalomethanes	51	ug/L	06-Jan-11
Trihalomethanes	59	ug/L	04-Jul-11
Trihalomethanes	52	ug/L	02-Aug-11
Trihalomethanes	53	ug/L	06-Sep-11
Trihalomethanes	51	ug/L	06-Sep-11
Trihalomethanes	56	ug/L	05-Dec-11



Summary of Additional Sampling Results - 2011

Sample for: Clostridium - Raw (CFU/L)

Date	# of Samples	Location	Results / Range
04-Jan-11	1	Thornbury WTP - Raw Water	8
07-Feb-11	1	Thornbury WTP - Raw Water	1
07-Mar-11	1	Thornbury WTP - Raw Water	7
04-Apr-11	1	Thornbury WTP - Raw Water	2
04-May-11	1	Thornbury WTP - Raw Water	1
06-Jun-11	1	Thornbury WTP - Raw Water	1
04-Jul-11	1	Thornbury WTP - Raw Water	1
2-Aug-11	1	Thornbury WTP - Raw Water	2
6-Sep-11	1	Thornbury WTP - Raw Water	4
3-Oct-11	1	Thornbury WTP - Raw Water	2
7-Nov-11	1	Thornbury WTP - Raw Water	0
5-Dec-11	1	Thornbury WTP - Raw Water	11

Sample for: Trihalomethanes - Treated (ug/L)

Date	# of Samples	Location	Results / Range
04-Jan-11	1	Camperdown Reservoir	36
04-Jan-11	1	Swiss Meadows Standpipe	28
07-Feb-11	1	Camperdown Reservoir	35
07-Feb-11	1	Happy Valley Booster Station	28
07-Feb-11	1	Swiss Meadows Standpipe	26
07-Mar-11	1	Camperdown Reservoir	36
07-Mar-11	1	Swiss Meadows Standpipe	21
04-Apr-11	1	Camperdown Reservoir	37
04-Apr-11	1	Swiss Meadows Standpipe	20
02-May-11	1	Camperdown Reservoir	39
02-May-11	1	Swiss Meadows Standpipe	33
06-Jun-11	1	Blueski George SS	35
06-Jun-11	1	Swiss Meadows Standpipe	51
04-Jul-11	1	Blueski George SS	36
04-Jul-11	1	Swiss Meadows Standpipe	59
02-Aug-11	1	Blueski George SS	41
02-Aug-11	1	Swiss Meadows Standpipe	52
6-Sep-11	1	Swiss Meadows Standpipe	53
6-Sep-11	1	Blueski George SS (026)	51
3-Oct-11	1	Blueski George SS (026)	43
3-Oct-11	1	Swiss Meadows Standpipe	47
5-Dec-11	1	Camperdown Reservoir	56
5-Dec-11	1	Swiss Meadows Standpipe	41
		Annual Average	39

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

Month		# of Samples	Results / Range
January	Lakefield Lab	1	22
February	Lakefield Lab	1	3
March	Lakefield Lab	1	3
April	Lakefield Lab	1	59
May	Lakefield Lab	1	3
June	Lakefield Lab	1	2
July	Lakefield Lab	1	3
August	Lakefield Lab	1	3
September	Lakefield Lab	1	2
October	Lakefield Lab	1	10
November	Lakefield Lab	1	3
December	Lakefield Lab	1	5
		Annual Average	10



Summary of Additional Sampling Results - 2011

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

Date	# of Samples	Location	Results / Range
04-Jan-11	1	Thornbury WTP - Raw Water	0.005
04-Jan-11	1	Little Beaver River	0.005
04-Jan-11	1	Big Head River	0.005
04-Jan-11	1	Beaver River	0.005
04-Jan-11	1	Thornbury WTP - Treated Water	0.005
07-Feb-11	1	Thornbury WTP - Raw Water	0.005
07-Feb-11	1	Thornbury WTP - Treated Water	0.005
07-Mar-11	1	Thornbury WTP - Raw Water	0.005
07-Mar-11	1	Thornbury WTP - Treated Water	0.005
04-Apr-11	1	Thornbury WTP - Treated Water	0.005
04-Apr-11	1	Thornbury WTP - Raw Water	0.005
04-Apr-11	1	Little Beaver River	0.005
04-Apr-11	1	Big Head River	0.005
04-Apr-11	1	Beaver River	0.005
04-Apr-11	1	Indian Brook	0.005
02-May-11	1	Thornbury WTP - Treated Water	0.005
02-May-11	1	Thornbury WTP - Raw Water	0.005
06-Jun-11	1	Thornbury WTP - Treated Water	0.005
06-Jun-11	1	Thornbury WTP - Raw Water	0.005
06-Jun-11	1	Little Beaver River	0.005
06-Jun-11	1	Beaver River	0.005
04-Jul-11	1	Thornbury WTP - Treated Water	0.005
04-Jul-11	1	Thornbury WTP - Raw Water	0.005
04-Jul-11	1	Little Beaver River	0.005
04-Jul-11	1	Big Head River	0.005
04-Jul-11	1	Beaver River	0.005
04-Jul-11	1	Indian Brook	0.005
02-Aug-11	1	Thornbury WTP - Raw Water	0.005
02-Aug-11	1	Little Beaver River	0.005
02-Aug-11	1	Big Head River	0.005
02-Aug-11	1	Beaver River	0.005
02-Aug-11	1	Indian Brook	0.005
02-Aug-11	1	Thornbury WTP - Treated Water	0.005
6-Sep-11	1	Thornbury WTP - Raw Water	0.005
6-Sep-11	1	Little Beaver River	0.005
6-Sep-11	1	Big Head River	0.005
6-Sep-11	1	Beaver River	0.010
6-Sep-11	1	Indian Brook	0.010
6-Sep-11	1	Thornbury WTP - Treated Water	0.005
3-Oct-11	1	Thornbury WTP - Treated Water	0.005
3-Oct-11	1	Thornbury WTP - Raw Water	0.005
3-Oct-11	1	Little Beaver River	0.005
3-Oct-11	1	Big Head River	0.005
3-Oct-11	1	Beaver River	0.005
3-Oct-11	1	Indian Brook	0.005
7-Nov-11	1	Thornbury WTP - Raw Water	0.005
7-Nov-11	1	Thornbury WTP - Treated Water	0.005
5-Dec-11	1	Thornbury WTP - Raw Water	0.005
5-Dec-11	1	Little Beaver River	0.005
5-Dec-11	1	Big Head River	0.005
5-Dec-11	1	Beaver River	0.005
5-Dec-11	1	Indian Brook	0.005
5-Dec-11	1	Thornbury WTP - Treated Water	0.005



Summary of Additional Sampling Results - 2011

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

Date	# of Samples	Location	Results / Range
04-Jan-11	1	Thornbury WTP - Raw Water	0.309
04-Jan-11	1	Little Beaver River	1.94
04-Jan-11	1	Big Head River	0.943
04-Jan-11	1	Beaver River	0.590
04-Jan-11	1	Thornbury WTP - Treated Water	0.517
07-Feb-11	1	Thornbury WTP - Raw Water	0.303
07-Feb-11	1	Thornbury WTP - Treated Water	0.293
07-Mar-11	1	Thornbury WTP - Raw Water	0.335
07-Mar-11	1	Thornbury WTP - Treated Water	0.341
04-Apr-11	1	Thornbury WTP - Treated Water	0.291
04-Apr-11	1	Thornbury WTP - Raw Water	0.285
04-Apr-11	1	Thornbury WTP - Little Beaver	0.614
04-Apr-11	1	Big Head River	0.839
04-Apr-11	1	Beaver River	0.506
04-Apr-11	1	Indian Brook	1.04
02-May-11	1	Thornbury WTP - Treated Water	0.283
02-May-11	1	Thornbury WTP - Raw Water	0.280
06-Jun-11	1	Thornbury WTP - Treated Water	0.280
06-Jun-11	1	Thornbury WTP - Raw Water	0.259
06-Jun-11	1	Little Beaver River	0.813
06-Jun-11	1	Beaver River	0.213
04-Jul-11	1	Thornbury WTP - Treated Water	0.255
04-Jul-11	1	Thornbury WTP - Raw Water	0.27
04-Jul-11	1	Little Beaver River	0.328
04-Jul-11	1	Big Head River	0.460
04-Jul-11	1	Beaver River	0.030
04-Jul-11	1	Indian Brook	0.594
02-Aug-11	1	Thornbury WTP - Raw Water	0.258
02-Aug-11	1	Little Beaver River	0.414
02-Aug-11	1	Big Head River	0.163
02-Aug-11	1	Beaver River	3.83
02-Aug-11	1	Indian Brook	0.391
02-Aug-11	1	Thornbury WTP - Treated Water	0.254



Summary of Additional Sampling Results - 2011

Nitrate - Raw & Treated (mg/L)

6-Sep-11	1	Thornbury WTP - Raw Water	0.239
6-Sep-11	1	Little Beaver River	0.217
6-Sep-11	1	Big Head River	0.235
6-Sep-11	1	Beaver River	0.197
6-Sep-11	1	Indian Brook	0.198
6-Sep-11	1	Thornbury WTP - Treated Water	0.241
3-Oct-11	1	Thornbury WTP - Raw Water	0.239
3-Oct-11	1	Little Beaver River	1.17
3-Oct-11	1	Big Head River	0.459
3-Oct-11	1	Beaver River	0.273
3-Oct-11	1	Indian Brook	1.21
7-Nov-11	1	Thornbury WTP - Raw Water	0.255
7-Nov-11	1	Thornbury WTP - Treated Water	0.256
5-Dec-11	1	Thornbury WTP - Raw Water	0.308
5-Dec-11	1	Little Beaver River	1.57
5-Dec-11	1	Big Head River	0.741
5-Dec-11	1	Beaver River	0.749
5-Dec-11	1	Indian Brook	2.360
5-Dec-11	1	Thornbury WTP - Treated Water	0.286

Ministry of the Environment

Southwestern Region
Technical Support Section
Water Resources
733 Exeter Rd
London ON N6E 1L3
Fax: (519)873-5020
Tel: (519) 873-5066

Ministère de l'Environnement

Direction régionale du Sud-Ouest
Section du Soutien Technique
Ressource en eau
733 Exeter Rd
London ON N6E 1L3
Télécopieur: (519)873-5020
Tél:(519) 873-5066



April 28, 2008

The Corporation of the Town of The Blue Mountains
26 Bridge St E P.O. Box 310
Thornbury, Ontario, N0H 2P0

RE: Permit o. 4176-7DJJZG

Lot: 34, Concession: 10 (Thornbury)
The Blue Mountains, County of Grey
Reference Number 7255-7DHQFP

RECEIVED
MAY 07 2008
TOWN OF THE BLUE MOUNTAINS

MAY 08 2008

ENGINEERING & PUBLIC WORKS
TOWN OF THE BLUE MOUNTAINS

Dear Mr. Casivell:

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 January 30, 2008 and signed by John Casivell.

The Water Taking and Transfer Regulation, O. Reg. 387/04 came into effect on January 1, 2005. It requires that permit holders track the volume of water they take daily and report these volumes to the Ministry the following year. Please ensure that you inform yourself of the monitoring and reporting requirements related to your permit. You can find additional information on the MOE web site at www.ene.gov.on.ca or by calling the nearest MOE office.

Take notice that in issuing this Permit to Take Water, 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,

Ian Kerr
Supervisor, Water Resources
Southwestern Region

File Storage Number: SIGRBMC10.220

AMENDED PERMIT TO TAKE WATER
Surface Water
NUMBER 4176-7DJJZG

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
26 Bridge St E P.O. Box 310
Thornbury, Ontario, N0H 2P0
Canada

For the water taking from: Georgian Bay

Located at: Lot 34, Concession 10 (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. 4176-7DJJZG 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 January 30, 2008 and signed by John Caswell, 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, 2012**. 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 543360 4935450
							Total Taking:	18,662,400	

3.3 Any application submitted to the Ministry for renewal or amendment of this Permit shall be accompanied by all records required by the conditions of this Permit

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. A separate record shall be maintained for each source. 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 devise.

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*

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

This Permit cancels and replaces Permit Number 2612-7BZKKS, issued on 2008/02/21.

Dated at London this 28th day of April, 2008.



Ian Kerr
Director, Section 34
Ontario Water Resources Act, R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 4176-7DJJZG, dated April 28, 2008.