



EDWARDSBURGH CARDINAL

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Cardinal WTP Summary Report 2014

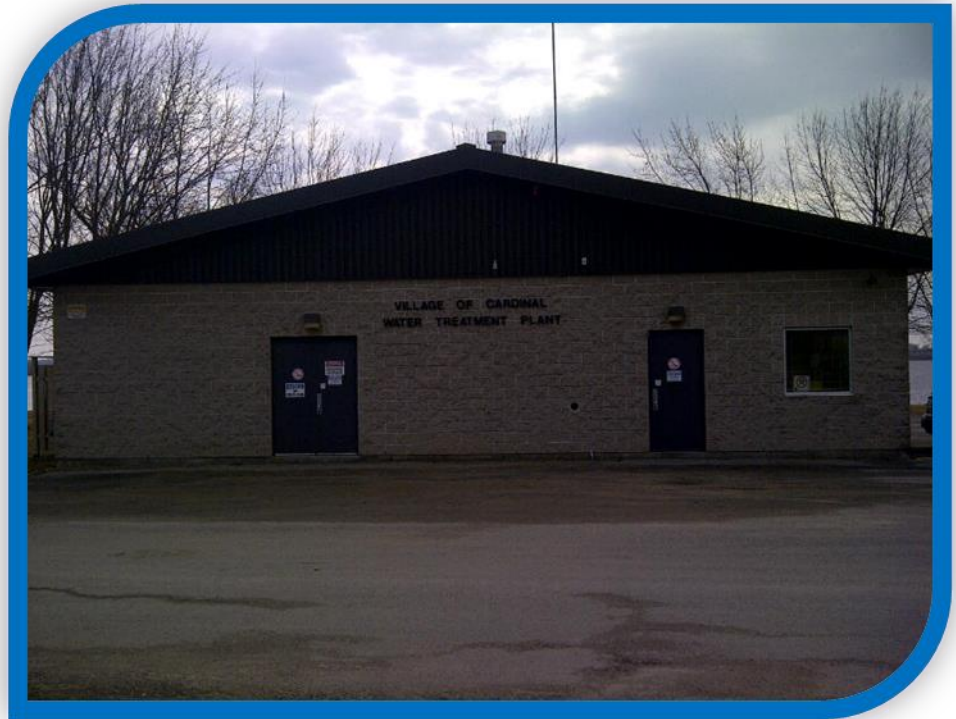
Prepared For: Council and Chief Administrative Officer
Township of Edwardsburgh Cardinal

Prepared by: Eric Wemerman, Environmental Services

Executive Summary

Schedule 22 of Ontario Regulation 170/03 requires that summary reports are prepared and given to members of council by March 31st of each year. The report must include any requirements of the Act, Regulations, Permits, licenses, or orders not met and the actions taken to correct the failure. In addition, a summary of flow rates and quantities compared to the approved capacities are provided to assess the capability of the system to meet existing and planned uses of the system.

The Cardinal Water System received a rating of 100% on DWI report 1-BBZGH conducted by MOEE Drinking Water Inspector Lauren Forrester on October 7th, 2014. I would like to take this opportunity to recognize the efforts of staff and council in continuing to ensure that the water system is functioning at a high level.



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Staffing and Licensing

The table below lists the licensed operational staff at the end of the 2014 calendar year.

NAME	POSITION	LICENCE #	TYPE	CLASS
Gordon Shaw	Chief Operator/ORO	58943	WT	III
		77743	WDS	II
Eric Wemerman	Assistant Chief Operator	61726	WT	II
		78182	WD	II
Stephen Campbell	Operator	54771	WT	II
		73567	WD	II
Aaron Campbell	Operator in Training	OT74174	WT	OIT
		OT74182	WD	OIT
Dave Grant	Director of Operations	10409	WT	III
		11762	WDS	II
William Walter	Spare Operator	6519	WT	I
		6520	WD	II

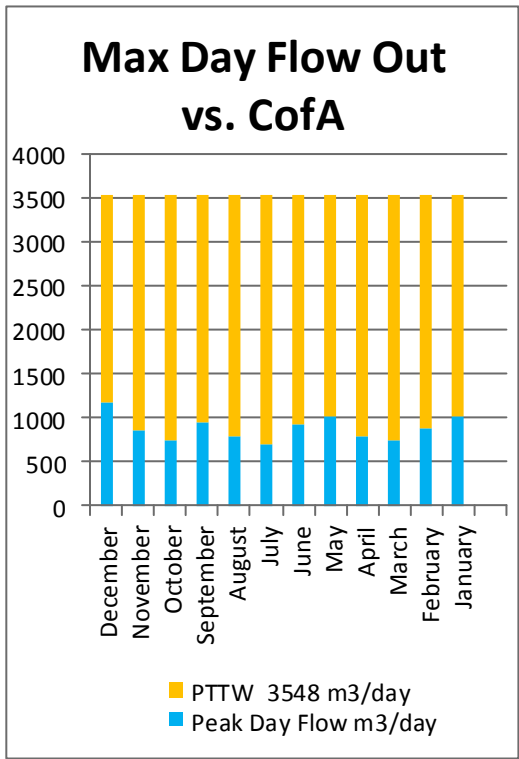
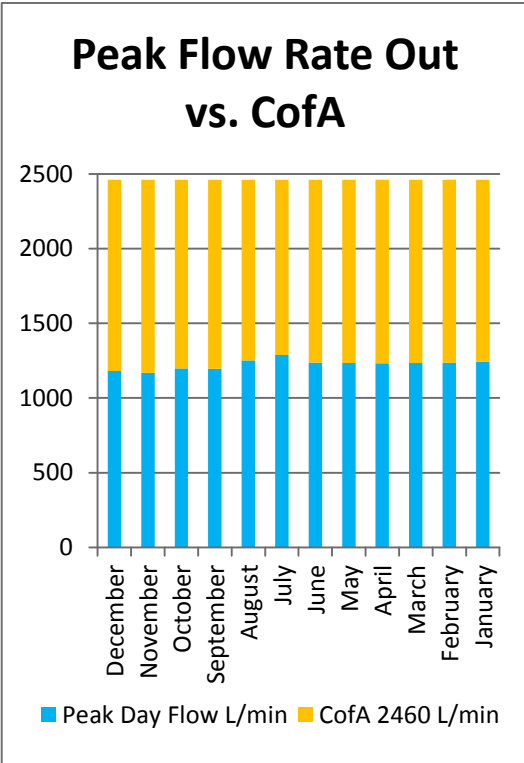
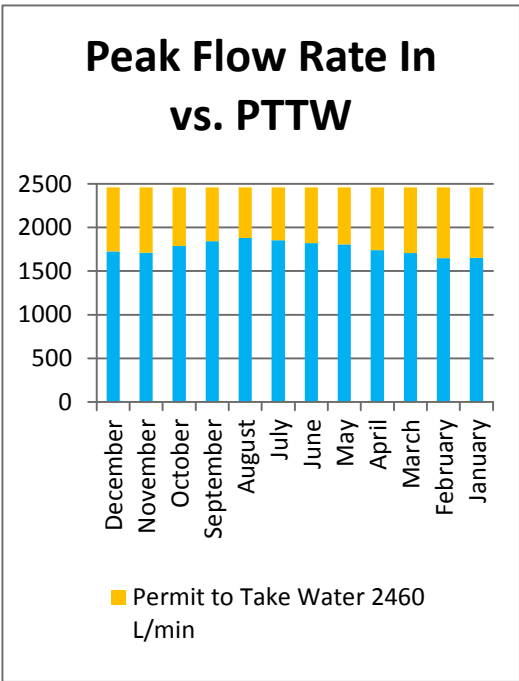
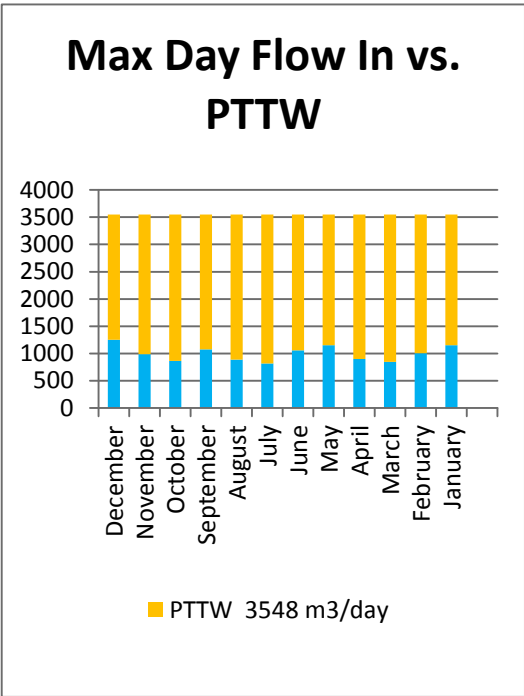
Failure to meet the Act, Regulations, System Approvals or Orders

The MOEE conducted an announced inspection on the water system on October 7th, 2014. No non-compliance issues or best practices were identified during the inspection.

Tabulation of Monitoring Data

The following chart provides you with the numerical value. The graphs on page five of this report plot the corresponding numerical value in reference to the Permit to Take Water and Certificate of Approval. Based on the values, the water system has the capability to meet with present demands of the system users with some room for expansion. The average daily flow out of the facility was 600 cubic meters and the total water produced in 2014 was 218544 cubic meters. This represents water reduction/conservation in the order of 15 % over 2013 volumes of 257008 cubic meters.

Month	Max Day Flow In (m3/day)	Max Flow Rate In (L/min)	Max Day Flow Out (m3/day)	Max Flow Rate Out (L/min)
December	1253	1724	1169	1181
November	986	1711	871	1169
October	864	1787	751	1197
September	1075	1843	953	1196
August	884	1881	800	1251
July	818	1854	713	1289
June	1058	1820	936	1237
May	1152	1807	1028	1234
April	898	1742	792	1233
March	848	1706	750	1235
February	1003	1648	885	1237
January	1152	1653	1027	1243



Summary of Maintenance

Planned Maintenance Activities

- Backflow Device Testing (3 WTP and 2 Distribution)
- Intake and Chlorine injection ring (Zebra Mussel Control) inspection
- Basket Screen inspection (twice annually)
- Routine camera inspection of water tower
- Hydrant Inspection and Main Flushing
- Bi-annual servicing of Standby Generator
- Bi-annual servicing of Trojan UV Swift 12
- Drain, Clean and Inspect filters
- Routine cleaning and calibration of all turbidity and chlorine analyzers
- Replaced communication switch for SCADA system

Unplanned Maintenance Activities

- February 3 & 4, 2014- Frozen water service at 3017 Walker St.
- February 4th, 2014 – Leaking water service, dug and repaired.
- February 20th 2014- Frozen water service in the Union Hall and Home Hardware on Canal St
- February 21-25th, 2014- Frozen water service at the Cardinal Youth Centre.
- November 27/28th, 2014- Filter to SCADA communication switch failure at water plant, replaced.
- December 19th, 2014- Replaced PAC line, flushed PAC panel and cleaned injector
- December 29th, 2014 – Water main break on the corner of Joseph and George St.



System Complaints

The system received 5 complaints in 2014. On February 3rd, 2014 a resident at 3017 Walker St called and complained of no water. Public Works/Environmental Services employees attended the site. The curb stop was dug and the thawing machine was used to thaw service line. On February 4th, 2014, a resident called and complained of water bubbling in front yard. Public Works and Environmental Services dug and repaired the leak. On February 20th Public Works/Environmental Services attended the Union Hall and Home Hardware to thaw two frozen water services. During the week of February 21-25th, the Cardinal Youth Centre had no water as the lines were also frozen. The frozen water line at the Youth Centre was the result of internal plumbing issues. On December 29th a water main break occurred at the corner of Joseph and George St. Main valves were shut or throttled to isolate the break. Residents experienced reduced water pressure. Environmental Services flushed hydrants and collected two microbiological samples for analyses after repairing the leak. No drinking water quality complaints were made in 2014.

