



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

March 13, 2008

Pat Kemp
CAO/Deputy Clerk
Township of Galway-Cavendish-Harvey
701 County Road # 36, P.O. Box 701
Bobcaygeon, ON
K0M 1A0

Re: Summary Report – Safe Drinking Water Act – Buckhorn Lake Estates WTP

Dear Ms. Kemp:

Attached is the 2007 Summary Report for the Buckhorn Lake Estates WTP. This report is completed based on the information we have in our records in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Sincerely

A handwritten signature in black ink, appearing to read 'Julie Mulligan', written over a horizontal line.

Julie Mulligan
Process Compliance Technician
Kawartha Hub
Ontario Clean Water Agency
(705) 738-9734
jmulligan@ocwa.com

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Buckhorn Lake Estates WTF, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2007 to December 31, 2007. The Buckhorn Lake Estates WTF is categorized as a Small Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the Township of Galway-Cavandish-Harvey.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Safe Drinking Water Act	The owner/operator did not comply with all Orders or other control documents that were issued between the date of the previous inspection and the date of this inspection. No further actions required as treatment process has changed.	Identified during the January 24, 2007 Compliance Inspection.	A POO was issued on March 23, 2007 to the owner regarding the UV disinfection system. OCWA had maintenance performed on the UV units and hired an external consultant to troubleshoot the problems, however the minimum dosage did not go above 40. No further actions required as treatment process has changed.	Complete

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Safe Drinking Water Act	All changes to the system registration information were not provided within ten (10) days of the change. The system is still undergoing upgrades and the owner/operator shall inform the Ministry of any changes within this required time frame. This should be performed as soon as the "major" changes have been completed. This will be verified during the next inspection. The owner shall immediately notify the Ministry of Environment of all changes which have occurred to the treatment plant.	Identified during the January 24, 2007 Compliance Inspection.	The owner shall immediately notify the Ministry of Environment of all changes which have occurred to the treatment plant.	Complete
Ontario Regulations (eg. O.Reg 170/03, O.Reg 435/93, O.Reg 903	Annual Reports did not include the required information required by O.Reg. 170/03. The Annual Report for 2006 only contains information from February 27, 2006 to December 31, 2006. The owner shall ensure that all Annual Reports contain information for the entire required reporting period.	Identified during the January 24, 2007 Compliance Inspection.	OCWA submitted the 2006 Annual Report from February 27 th because that was the date OCWA assumed operations of the facility. No information was available to include in the report prior to this date. The 2007 report will contain information for the entire year.	Complete

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Ontario Regulations (eg. O.Reg 170/03, O.Reg 435/93, O.Reg 903	Contrary to O.Reg. 170/03, Summary Reports were not completed on time and/or were not distributed in accordance with the regulatory requirements. There was no record provided by the owner that the Summary Report (2005) was presented to council or even prepared. The owner shall ensure that the Summary Report for 2006 is presented to council by March 28, 2007. The owner shall provide minutes to the undersigned Provincial Officer, indicating that the Summary Report was presented to council by April 20, 2007.	Identified during the January 24, 2007 Compliance Inspection.	Owner to provide meeting minutes to Provincial Officer by April 20, 2007.	Complete
System Certificate of Approval #5013-6X4M4J	Contrary to the CofA requirements, when the UV equipment had failed causing an alarm to sound, the alarm did not immediately sound at a location where a person was present and at the building where the system was installed.		OCWA assumed operations of the facility on February 27, 2006. OCWA had maintenance performed on the UV units and hired an external consultant to troubleshoot the problems, however the minimum dosage did not go above 40. The treatment system has been changed since August 30, 2006 and the UV disinfection equipment is no longer utilized. No action required.	

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Certificate of Approval #5013-6X4M4J	<p>Contrary to the CofA requirements, the system uses a UV unit for primary disinfection and the owner and operating authority have not ensured that the equipment had a recording device that continuously records the performance of the disinfection equipment. During the period of January 16, 2006 to August 30, 2006 the owner/operating authority was to provide continuous monitoring and recording with a minimum testing/reading and recording frequency of every 4 hours, and number of parameters related to the UV disinfection equipment performance.</p>	January 16, 2006 to August 30, 2006	<p>OCWA assumed operations of the facility on February 27, 2006. OCWA had maintenance performed on the UV units and hired an external consultant to troubleshoot the problems, however the minimum dosage did not go above 40. The treatment system has been changed since August 30, 2006 and the UV disinfection equipment is no longer utilized. No action required.</p>	
Certificate of Approval #5013-6X4M4J	<p>Contrary to the CofA requirements, when the UV equipment had failed and sounded an alarm causing the system to shut down, a certified operator had not taken appropriate actions before water was again directed to users. During the period of January 16, 2006 to August 30, 2006, the UV consistently read below the required level of 40 mJ per centimeter squared with no shut down of the unit.</p>	January 16, 2006 to August 30, 2006	<p>OCWA assumed operations of the facility on February 27, 2006. OCWA had maintenance performed on the UV units and hired an external consultant to troubleshoot the problems, however the minimum dosage did not go above 40. The treatment system has been changed since August 30, 2006 and the UV disinfection equipment is no longer utilized. No action required.</p>	

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Permit to Take Water #02-P-4001	No failures to report.			
Provincial Officer's Order	No failures to report.			

What else must the Report contain?

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 and daily instantaneous peak flow rates.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Buckhorn Lake Estates WTF which contains all required flow information.

The maximum daily volume Buckhorn Lake Estates WTF is permitted to supply is 458 m³/day. The maximum volume per day in 2007 was 297 m³/day and the average volume per day was 167.8 m³/day. The maximum flow rate allowed is 5.3 L/s. The maximum flow rate from Well 1 was 5.83 L/s and Well 2 was 5.76 L/s which can be attributed to pump start up.

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

End



Ontario Clean Water Agency Performance Assessment Report - Ground Water Supply

Printed on 2/6/2008
d_par_gw

Municipality: [6260] - Buckhorn Lake Estates Water Treatment
 Facility: [220006437] - Buckhorn Lake Estates Water Treatment
 Works: Class 2 Water Treatment
 Classification: Class 2 Water Treatment
 Water Source: RW1

Period: 01/01/2007 to 12/31/2007
 Served Population: 150
 Total Design Capacity(m³/day): 0
 Raw Group Selected: RW1
 Effluent Group Selected: TW

Flow	Jan/2007	Feb/2007	Mar/2007	Apr/2007	May/2007	Jun/2007	Jul/2007	Aug/2007	Sep/2007	Oct/2007	Nov/2007	Dec/2007	Total	Avg	Max	Criteria
Raw Total Flow(m ³ /mth)	1,362.0	1,312.0	1,333.0	1,541.0	2,404.0	2,852.0	2,843.0	3,561.0	3,335.0	3,417.0	3,443.0	3,857.0	31,260.0	85.6	174.0	1,950.0
Raw Avg Day Flow(m ³ /day)	43.9	46.9	43.0	51.4	77.5	95.1	91.7	114.9	111.2	110.2	114.8	124.4	124.4			
Raw Max Day Flow(m ³ /day)	73.0	103.0	59.0	84.0	117.0	136.0	135.0	174.0	144.0	132.0	136.0	140.0	140.0			
Treat Total Flow(m ³ /mth)	1,312.0	1,261.0	1,262.0	1,492.0	2,327.0	2,785.0	2,783.0	3,480.0	3,284.0	3,389.0	3,409.0	3,824.0	30,608.0	83.9	181.0	1,950.0
Treat Avg Day Flow(m ³ /day)	42.3	45.0	40.7	49.7	75.1	92.8	89.6	112.3	109.5	109.3	113.6	123.4	123.4			
Treat Max Day Flow(m ³ /day)	66.0	96.0	47.0	77.0	116.0	128.0	144.0	181.0	144.0	128.0	119.0	134.0	134.0			
Physical/Chemical Parameters																
Raw Max Turbidity(NTU)	0.14	0.15	0.09	0.11	0.16	0.1	0.07	0.11	0.11	0.13	0.08	0.11	0.11	0.11	0.16	0.16
Treat Min Turbidity(NTU)	0.04	0.02	0.06	0	0.08	0.09	0.09	0.09	0.08	0.02	0.07	0.07	0.07	0.09	0.09	0
Treat Max Turbidity(NTU)	1.97	1.97	1.33	2.04	2.04	1.81	0.37	1.86	0.14	0.55	0.59	0.45	0.45	0.25	2.04	1.0
Treat Min Filter Turb.(NTU) [TW]	0	0.06	0	0	0.03	0.04	0.04	0.06	0.01	0.01	0.02	0.02	0.02	0.04	0.04	0
Treat Max Filter Turb.(NTU) [TW]	2.03	2.04	1.98	1.99	2.01	0.42	0.27	0.88	0.17	0.15	0.16	1.21	1.21	0.46	2.04	1.0
Treat Max Nitrite(mg/L)	0.01	<	<	0.01	<	<	<	<	<	<	<	<	<	0.01	0.01	1.0
Treat Max Nitrate(mg/L)	3.85	<	<	3.03	<	<	2.02	<	<	<	<	<	<	2.86	3.85	10.0
Disinfection																
Treat Min Free CL2 Resid (mg/L)	0.78	0.96	0.95	0.74	1.11	1.1	0.93	0.71	0.99	1.1	0.97	0.08	0.08	1.16	2.0	0.2
Treat Max Free CL2 Resid (mg/L)	2.0	1.55	1.22	1.77	1.71	2.0	1.8	2.0	1.54	1.52	1.46	2.0	2.0	1.33	2.0	4.0
No. Of Bact. Sample Collected	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0	1.0	1.0	0
Raw	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0	0	0	0
Treated	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0	0	0	0
Treat Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dist. Adverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legend																
Raw Group Selected	RW1 - Raw Water Well 1															
Effluent Group Selected	TW - Treated Water															
Filter Group Selected	TW - Treated Water															
Distribution Group Selected	TW - Treated Water															

Note ? Calculation not verifiable At least one result reported as < and at least one result reported >
 -1 Analysis result less than detectable limit