

Chief Administrative Officer

January 9, 2012

The Mayor and Members of Council
Municipal Offices
45 Hillside Drive North
Elliot Lake, Ontario
P5A 1X5

ATTENTION: Mayor and Member of Council

Your Worship Mayor Hamilton and Members of Council:

**RE: ELLIOT LAKE WATER TREATMENT PLANT
SUMMARY REPORT FOR MUNICIPALITIES
Municipal: Large Residential**

Please find attached the 2011 Summary Report for the Elliot Lake Water Treatment Plant. This report has been prepared in accordance to the guidelines set out in Schedule 22 of the Safe Drinking Water Act, 2002 (Ontario Regulation 170/03).

As per the regulation, this report is for the period from January 1, 2011 to December 31, 2011.

Any questions or concerns should be directed to the undersigned.

Yours truly,

R. deBortoli
Chief Administrative Officer

RD:jc

ELLIOT LAKE WATER TREATMENT PLANT

Compliance Report

Section 18 of the Safe Drinking Water Act requires the system operator to report adverse test results immediately after the result is obtained. An adverse test result constitutes a parameter failing to meet, at a minimum, the requirements of the prescribed drinking water standards established for that parameter, under the Ontario Drinking Water Standards. Adverse test results must be identified in the Summary Report.

There were 4 instances in 2011 when reports were made to the Spills Action Centre in accordance with Section 18 of the Safe Drinking Water Act.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action
Sept. 9	Total Coliform	1	cfu/100ml	Flush/resample
Sept. 22	Chlorine residual	<0.05	mg/L	Flush and adjust valve
Oct. 26	Total Coliform	1	cfu/100ml	Resample
Nov. 23	Total Coliform	2	cfu/100ml	Resample

Corrective Action:

The presence of total coliform bacteria could indicate the potential for the presence of E.Coli. When a sample tests positive for coliform bacteria the source is immediately re-sampled. In this particular case the repeat sample did not produce any bacterial colonies. Chlorine residuals are monitored concurrently when bacteriological samples are taken. The level of chlorine in these particular cases was adequate, as per the regulation, otherwise the chlorine level would have triggered an adverse incident. Sample contamination either by the sampler or the lab is the likely cause for this adverse incident.

Random samples of the distribution system are conducted to ensure that adequate residual of chlorine is maintained in the system for disinfection purposes. When samples reveal lower than acceptable levels of chlorine in the system corrective action is taken. In this case a closed valve was cause of the problem. The valve was opened and this eliminated the low level of chlorine in this area.

MOE Inspection:

The Ministry of the Environment carried out a plant inspection on July 6, 2011. The inspection found one minor issue concerning the loss of chlorine residual in the distribution system during the review period (Oct.2010). The corrective action taken by Plant staff to deal with the issue and ensuring that additional steps were in place to minimize the chances of a recurrence at this location satisfied the Ministry and therefore no additional action was required. The final inspection rating was 96.34%.

Terms and Conditions of Certificate of Approval

Performance: The Elliot Lake Water Treatment Plant meets the requirement of the Ontario “Drinking Water Standards.” Disinfection of treated water is achieved as per Ministry Procedure B13-3. Backwash/wastewater effluent discharge suspended solids are below the 25 mg/l annual average.

Monitoring and Recording: Flow meters, chlorine analyzers and turbidimeters are calibrated per manufacturer’s specifications and certificates are provided where necessary.

Operations and Maintenance: Maintenance of the water treatment plant is conducted and controlled through a preventive maintenance program. All operators are certified with at least one operator certified at the designated level of the facility. All treatment chemicals meet A.W.W.A. (American Water Works Association) quality criteria for drinking water.

The following are the chemicals used and dosage rates:

Chemical	Approx. Dosage
Hydrated Lime	20.76 mg/l
Hydrofluosilicic Acid	2.53 mg/l
Chlorine	2.29 mg/l
Polyhydroxyaluminum Chloride	24.69 mg/l

Contingency plans with regard to emergencies, upset conditions and breakdowns are posted in the operator control room and contained in the Plant Operations Manual. Detailed drawings of the facility are centrally located in the Process Control Room.

ELLIOT LAKE WATER TREATMENT PLANT

2011 MONTHLY FLOWS

MONTH	MINIMUM FLOW/DAY (m ³)	MAXIMUM FLOW/DAY (m ³)	AVERAGE FLOW/DAY (m ³)	TOTAL FLOW (m ³)	INSTANTANEOUS PEAK FLOW (m ³)
JANUARY	5,588	6,751	6,095	197,456	17,631
FEBRUARY	6,112	6,774	6,353	185,487	15,856
MARCH	5,021	6,802	6,181	199,541	19,955
APRIL	5,632	6,480	6,140	192,314	17,459
MAY	5,737	6,891	6,098	197,100	17,450
JUNE	5,458	8,999	6,667	212,216	17,951
JULY	6,387	10,574	8,608	283,669	22,903
AUGUST	5,774	9,733	7,276	239,053	18,227
SEPTEMBER	4,499	8,323	6,650	209,331	17,709
OCTOBER	4,660	8,019	6,245	204,647	16,614
NOVEMBER	5,639	7,111	6,185	196,497	15,276
DECEMBER	5,235	8,807	7,210	235,510	23,239
TOTAL				2,552,821	

NOTE: The maximum rated capacity of 28,400 m³/day as specified in the facility's Certificate of Approval was not exceeded for the period of this report.