

Director of Operations

February 7, 2007

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 2006 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, 2006 to December 31, 2006.

Any questions or concerns should be directed to the undersigned.

Yours truly,

R. deBortoli  
Director of Operations

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 two incidents of adverse test results during 2006.

1. Distribution Sample tested positive for the presence of Coliform bacteria on August 31, 2006. (7 cfu/100ml)
2. Distribution Sample tested positive for the presence of Coliform bacteria on December 13, 2006. (1 cfu/100ml)

## **Corrective Action:**

Section 17 of Ontario Reg. 170/03 identifies the first step in the corrective measures to be taken with respect to the presence of coliform bacteria is immediate resample and test. This action was carried out (along with water main flushing in the first cases). Each re-sample and test produced results meeting minimum requirements. Therefore, no further action was required.

The Ministry of the Environment carried out a plant inspection on September 19, 2006. The water systems (treatment and distribution) were found to be compliant with regulatory requirements.

The inspection did reveal some inaccuracies in the Certificate of Approval (C of A). The C of A describes the method of monitoring the level of fluoride in the water as by means of a continuous on-stream analyzer. The continuous on-stream analyzer was removed from service approximately 20 years ago and replaced with a more reliable colourimeter for the determination of fluoride concentrations in the water.

The standpipes/reservoirs contained within the distribution system do not appear in the C of A. The inspector suggested that the Director acknowledge these pieces of distribution equipment in the C of A.

An application for amendment to the C of A has been made to the Director, MOE.

## **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	15 mg/l
Hydrofluosilicic Acid	3.5 mg/l
Chlorine	1.8 mg/l
Polyhydroxyaluminum Chloride	7.0 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 Operator’s Control Room.

**ELLIOT LAKE WATER TREATMENT PLANT**

**2006 MONTHLY FLOWS**

<b>MONTH</b>	<b>MINIMUM FLOW/DAY (m<sup>3</sup>)</b>	<b>MAXIMUM FLOW/DAY (m<sup>3</sup>)</b>	<b>AVERAGE FLOW/DAY (m<sup>3</sup>)</b>	<b>TOTAL FLOW (m<sup>3</sup>)</b>	<b>INSTANTANEOUS PEAK FLOW (m<sup>3</sup>)</b>
<b>JANUARY</b>	6,341	9,476	8,340	266,503	19,341
<b>FEBRUARY</b>	6,757	13,085	8,609	249,430	15,944
<b>MARCH</b>	7,246	9,366	8,417	269,279	15,897
<b>APRIL</b>	6,701	9,304	8,058	249,118	16,817
<b>MAY</b>	6,056	11,187	7,285	232,728	16,011
<b>JUNE</b>	6,470	12,505	8,862	276,050	21,778
<b>JULY</b>	6,282	11,887	8,793	282,688	20,334
<b>AUGUST</b>	6,239	9,676	7,712	248,259	21,576
<b>SEPTEMBER</b>	6,090	7,930	6,893	215,366	21,113
<b>OCTOBER</b>	6,555	8,399	7,200	233,493	18,898
<b>NOVEMBER</b>	6,858	9,559	8,141	254,012	16,125
<b>DECEMBER</b>	6,930	11,858	9,167	294,538	16,877
<b>TOTAL</b>				3,071,464	

NOTE: The maximum rated capacity of 28,400 m<sup>3</sup>/day as specified in the facility's Certificate of Approval was not exceeded for the period of this report.