

**Subject: 2020 Water Pollution Control Plant Annual Report**

**Department: Infrastructure Services**

**Division: Environment**

**Report #: INS-2021-018**

**Meeting Date: 2021-03-22**

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### **Recommendations**

**That report INS-Env-2021-018, 2020 Water Pollution Control Plant Annual Report, be received.**

### **Background and Analysis**

The Annual Report for the Town of Orangeville Water Pollution Control Plant (WPCP) is required by Section 10 (6) of the Environmental Compliance Approval (ECA) for the WPCP. The report must be completed and submitted to the Ministry of the Environment Conservation and Parks (MECP) Water Supervisor within 90 days of year-end. In accordance with the ECA requirement, staff will submit the report to MECP prior to the March 30, 2020 deadline.

The Annual Report provides a basic description of the WPCP and the treatment process, a summary of raw sewage and final effluent quality, a summary of major maintenance work undertaken and a discussion of all bypasses that occurred.

The following are some key highlights from the report.

- The average flow to the WPCP in 2020 was 11,715 m<sup>3</sup>/day, or approximately 67% of the plant's rated capacity of 17,500 m<sup>3</sup>/day.
- There were 2 partial tertiary by-passes of secondary effluent due to major wet weather storm event, approximately 100 mm of rain, that occurred January 11<sup>th</sup> and 12<sup>th</sup>, 2020.
- The quality of the final effluent remained within the effluent limits specified in the ECA for most of the year, except for the Total Suspended Solids (TSS) concentration in July 2020, and the Total Nitrogen concentration in June 2020.

The average TSS concentration of the final effluent in July 2020 was 4.3 mg/L, or 0.3 mg/L above the compliance limit of 4.0 mg/L for TSS. This elevated TSS concentration

was attributed to fouling of the effluent sampler. After extensive cleaning of the effluent composite sampler, the TSS concentrations returned to within the compliance limits.

During June the monthly average of effluent total nitrogen was 7.5 mg/L, or 0.4 mg/L above the compliance limit of 7.1 mg/L. This was partially due to the failure of a mixed liquor pump and the elevated air and sewage temperatures that had an impact on the dissolved oxygen efficiency and microbiology in the treatment process. Operators have adjusted their inspections, cleaning protocols and solids management to mitigate this in the future.

The WPCP is currently meeting the effluent quality criteria in the ECA. A copy of the Annual Report is attached.

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## **Strategic Alignment**

### **Orangeville Forward – Strategic Plan**

Priority Area: Sustainable Infrastructure

Objective: Maintaining Existing Assets

### **Sustainable Neighbourhood Action Plan**

Theme: Natural Resources and Environment

Strategy: Protect, Improve or Restore the Quality and Quantity of Water Resources

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## **Notice Provisions**

None

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## **Financial Impact**

There is no financial impact associated with this report.

Respectfully submitted  
Douglas G. Jones, M.E.Sc., P.Eng.  
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## **Attachment(s):**

1. Water Pollution Control Plant Annual Report 2020