



2020 ANNUAL REPORT

River Street Pumping Station, Collingwood Combined Sewer Overflow and Orchard Combined Sewer Overflow

Table of Contents

REPORT CHECK LIST	3
EXECUTIVE SUMMARY	4
EQUIPMENT CALIBRATIONS.....	5
COMPLAINTS.....	5
BYPASS SUMMARY	5
BYPASS RESULT INTERPRETATIONS.....	6

REPORT CHECK LIST

Annual report submitted for River St. Pumping Station Environmental Compliance Approval (ECA) number 3237-9EFN85, Collingwood CSO certificate of approval number 2414-63TQET, and Orchard CSO certificate of Approval number 1172-64EMDR. Each annual report shall contain at least the following information:

- Summary and interpretation of all monitoring data and an overview of the success and adequacy of the works.
- Description of any operating problems encountered, and corrective actions taken.
- Summary of all maintenance carried out on any major structure, equipment, apparatus mechanism or thing forming part of works.
- Summary of the calibration and maintenance carried out on all effluent monitoring equipment.
- Summary of any complaints received during the reporting period and any steps taken to address the complaints.
- Summary of all by-pass, spill, or abnormal discharge events.
- Summary of any incidents where the fine screen in the overflow chamber has become completely clogged, resulting in emergency overflow. (River St. Pumping Station only)
- Any other information the District Manager requires from time to time.

EXECUTIVE SUMMARY

The River St. Pumping Facility operates under a Ministry of the Environment, Conservation and Parks ECA number 3237-9EFN85. For the reporting year 2020 the facility was compliant with all conditions outlined in condition 7 of the above-mentioned ECA and is briefly described in the following sections of this report.

The total flow through the facility in 2020 was 22,306,100 m³.

The facility saw no bypass events in the 2020 reporting year therefore no debris has clogged the overflow screen. It is still visually inspected as needed.

Upgrades began in 2013 and were completed in 2014. Improvements were made in the grit removal system, air treatment, and corrosion control by means of installing a hydrogen peroxide injection system which is operated by U.S. Peroxide.

The Orchard St. (Emma Martin) CSO system operates under the Ministry of the Environment, Conservation and Parks Certificate of Approval #1172-64EMDR.

The total flow through this system in 2020 was 35,170 m³ with no bypasses occurring.

No repairs had to be done to this system in 2020 and no operating problems were encountered. There was a tank cleanout to remove collected debris.

The Collingwood CSO system operates under the Ministry of the Environment, Conservation and Parks Certificate of Approval #2414-63TQET.

The total flow to sanitary from this system for 2020 was 168,621 m³.

The total flow to the lake was 32,647.3 m³ during bypasses.

There were 4 bypass events from this system in 2020 (See tables 1 & 2).

EQUIPMENT CALIBRATIONS

All facility flow meters are calibrated annually by third party contractors. As a result of this proactive approach, the facility saw limited downtime of major equipment and saw very few mechanical or electrical failures this year.

COMPLAINTS

There were no official complaints related to these facilities in 2020.

BYPASS SUMMARY

Table 1 summarizes the locations, volumes and durations of bypass events for the reporting year 2020. Table 2 summarizes the test results from samples taken during the 2020 bypass events.

Table 1: Bypass Events

Date mm/dd/yyyy	Location	Start Time	End Time	Volume (m ³)	Reason For Bypass	Precip. (mm)
01/11/2020	King-Collingwood CSO	18:37	08:00	15,300	Heavy Rain	38.1
04/13/2020	King-Collingwood CSO	15:54	04:21	6.3	Heavy Rain	29.1
04/30/2020	King-Collingwood CSO	23:30	00:53	1,454	Heavy Rain	47.2
12/25/2020	King-Collingwood CSO	02:07	20:19	15,887	Heavy rain	19.2

Table 2: Bypass Sampling Results

Parameter	Units	King-Collingwood and Orchard CSO Annual Avg.
Total Coliform	Cfu/100ml	2,322,222
E coli	Cfu/100ml	322,222
HPC	Cfu/ml	3,590,000
CBOD ₅	mg/l	6.9
TSS	mg/l	60
TP	mg/l	0.66
TKN	mg/l	5.3

BYPASS RESULT INTERPRETATIONS

All bypass discharges have a high bacteria count due to the lack of disinfection. CBOD₅, TP and TKN results are much lower than typical WWTP raw sewage influent due to the dilution attributed to rainwater during these events. All efforts are made to capture any debris contained in these discharges to the lake. After each bypass event, shoreline inspections near discharge points are done to monitor any debris that may come ashore. Clean up is done if debris is found.

For further information about this report or any questions regarding accessibility contact Troy Dickerson at tdickerson@utilitieskingston.com , or call 613-546-1181 Ext 2 1 9 0