



**Municipality Of Huron East
2015 Operations Report
Brussels Wastewater Facilities
Reporting Period Jan-Dec 2015**

1. Introduction

Raw sewage from the town of Brussels collects at the Stretton Street pumping station before being pumped to the WWTP. The treatment process consists of an extended aeration sewage treatment facility with tertiary filtration, Hypochlorite disinfection with a treatment effluent to the Maitland River.

Following is a list the facilities main treatment components.

- An inlet works consisting of (2) grit removal channels.
- An emergency bypass bar screen and overflow to chlorine contact chamber.
- Two aeration tanks equipped with two surface aerators per tank.
- One final clarifier
- An aerated sludge holding tank c/w sludge return/wasting facilities.
- Chlorine contact chamber.
- Effluent filtration via two compartment effluent filter.
- Aerated sludge storage tank (930 cubic meters).
- An insulated chemical storage tank with metering pumps.

The sewage works including the Stretton Street pump station, are owned by the corporation of the municipality of Huron East.

2. Regulatory Issues

CH2MHILL has made every effort during the reporting period to operate this wastewater system in accordance with applicable laws, certificates and regulations. To the best of our knowledge, the following report truthfully and accurately reflects any and all matters of non-compliance regarding the ownership and operation of the wastewater treatment plant during the reporting period.

During this period, the plant was operated in full compliance with applicable laws, regulations and the WWTP'S Certificate of Approval, save and except the following:

0	None during this period
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Requirement	Duration of Failure	Measures to Correct the Failure
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3. Compliance with Quality/Quantity Criteria

Brussels WWTP

Month	Average Volume/Day m ³ /d	Plant Utilization (based on Avg.)	Max Volume/Day m ³ /d
Jan	471	53.5	610
Feb	436	49.5	531
Mar	618	70.2	1060
April	803	91.2	1463
May	474	53.9	620
June	710	80.7	2263
July	453	51.5	784
Aug	382	43.4	647
Sept	364	41.4	503
Oct	394	44.8	575
Nov	662	75.2	1808
Dec	623	70.8	1118

Plant Average Day Design Capacity is 880 m³/d



4. Quality Assurance/Quality Control

- SGS Environmental conducts the required physical, chemical and biological testing of influent and effluent from each WWTP.

5. Maintenance Summary

Brussels Pump Station

- CT Environmental in to clean out wet well
- Pulled #3 Sewage pump for inspection/replacement of wear rings
- Pump #1, #2 and #3 check valves taken apart and cleaned
- Ultrasonic level indicator inspecting/cleaning of “floats”

Brussels WPCP

- Service on primary clarifier (adjustment of sprocket drive/oil change)
- Contact chambers were emptied/cleaned and inspected (spring and fall)
- Repaired broken valve in sludge digester
- CT Environmental in to clean out both grit channels at inlet works

General

- Maintained aeration blowers, return pumps and sewage pumps (oil change, cleaning of rags/other debris)
- Inspected and ran all diesel generators monthly
- Maintained all chemical pumps and injection systems.

6. Environmental/Operating Problems

- There were no unusual environmental/operating problems during 2015

7. Proposed Alterations, Extensions or Replacements

- Switch from Gas to Liquid Chlorine in 2011
- Final effluent filter will need extensive work (on-going).

8. Calibration Procedures

- Flow meters were calibrated in 2015

9. Health & Safety Items

- Lifting equipment, Fire extinguishers, Gas monitors Monthly/Yearly inspections. Weekly Safety meeting along with Quarterly walk through completed for 2015

10. Status of Capital Projects

- Currently looking at options for effluent filter.

11. Other Items

- Due to no regulatory issues in 2015, all effluent results were below effluent limits (as set in Condition 6 in the ECA). The wastewater treatment plant had



the necessary process steps to ensure all influent flows were adequately treated for all effluent parameters sampled for.

Effluent Quality Assurance

- Basic control measures like cleaning the clarifier weirs prevents algae and other debris from entering the receiving stream.
- Daily visual checks of the chlorination system and outfall ensures proper working function of effluent components.

System By-passes

- There were no system by-passes to report at the wastewater treatment facility in 2015. Proper visual checks/maintenance tasks and annual service of the generators ensured no loss of disinfection equipment when normal hydro was interrupted (automatic transfer equipment in effect). In addition, there were no major rain events/snow melts that caused the plant to by-pass.

Bio-Solids

- During the reporting period, there was approximately 1002.6 m³ of bio-solids created which was pumped into the bio-solids holding tank. It was then land applied. We anticipate the same volume of bio-solids to be generated during the next reporting period.

Complaints

- There were no complaints received by the municipality or the operating authority in 2015.