



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

1. Introduction

The inlet works consists of a manually raked bar screen, channel grinder, bypass piping, including overflow weir installed in the inlet structure, consisting of 375 mm diameter overflow pipe to the Flow Equalization Storage Tanks; and a bypass flow monitoring station. From the bar screen, the flow is directed to the primary clarifier, from which it is pumped by raw sewage pumps to the four aeration tank cells. Following aeration, settling takes place in the two final clarifiers. Effluent from the settling tanks is disinfected using sodium hypochlorite prior to discharge into Grant Creek. Sludge from the clarifiers is either returned to the aeration tanks or to the primary clarifier. All primary sludge is periodically wasted to the sludge holding tank. Scum from the primary clarifier is discharged to a scum pit; contents of the sludge pit are pumped to digester. Flows exceeding approximately 1600m³/day are diverted to the flow equalization storage tank downstream of the mechanical bar screens, The storm equalization tank is rectangular, with wash troughs for flushing of settled materials, which are gravity fed via Rotork control valve and are discharged with collected storm water into the main process flow. During high flow events, excess flow is diverted to a equalization storage tank. If the EQ tank is full, flow is then bypassed to Grant Creek. During short duration storm events, flow is stored and then drained back to the head of the plant during low flow periods. Alum is continuously injected into flow split chamber for the aeration tanks.

The sewage works, are owned by the Corporation of the Municipality of Huron East and operated by CH2MHill. The waste water collection System is both owned and operated by 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:

<input checked="" type="checkbox"/>	None during this period
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Or

Requirement	Duration of Failure	Measures to Correct the Failure



3. Compliance with Quality/Quantity Criteria

Vanastra WWTP

Month	Average Volume/Day m ³ /d	Plant Utilization (based on Avg. Day)	Max Volume/Day m ³ /d
Jan	428	30.5%	793
Feb	268	19.1%	307
Mar	838	59.6%	2105
April	755	53.7%	1559
May	317	22.6%	911
June	681	48.5%	1740
July	371	26.4%	864
Aug	352	25.0%	960
Sept	317	22.6%	1106
Oct	518	36.9%	1105
Nov	762	54.2%	2098
Dec	794	56.5%	1852

Plant Average Day Design Capacity is 1405 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

Vanastra WPCP

- Scum trough repaired in primary clarifier
- South Final Clarifier pumped out for inspection/cleaning
- North Final Clarifier pumped out for inspection/cleaning
- Rebuild alum pump(new tubes), replace alum lines to aeration tank
- Repair chlorine board and injection system
- Land apply bio-solids from digester

General

- Maintained aeration blowers, return pumps and sewage pumps
- Yearly Inspected and ran all diesel generators monthly
- Maintained all chemical pumps and injection systems.

6. Environmental/Operating Problems

- None during this period.

7. Proposed Alterations, Extensions or Replacements

- None during this period

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

- None during this period.

11. Other Items

Monitoring Data Summary

- 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 400 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.