

**PUBLIC UTILITIES COMMISSION  
FOR THE MUNICIPALITY OF CHATHAM-KENT  
WALLACEBURG WASTEWATER TREATMENT PLANT**

**2018 PERFORMANCE REPORT**

**January 1 to June 30, 2018**

**Under Environmental Compliance Approval 3022-9JMQZ6**

**And**

**July 1 to December 31, 2018**

**Under Environmental Compliance Approval 1739-AXNJMV**

## **Plant Type and Brief Description**

The Wallaceburg Water Pollution Control Plant provides treatment of wastewater for approximately 11,000 residents of the Town of Wallaceburg. Wastewater is collected and pumped to the plant by 10 sanitary pump stations located throughout the community.

The Wallaceburg Water Pollution Control Plant is a Conventional Activated Sludge Plant with the plant final effluent passing through an Ultra Violet Light Disinfection System. The processed final effluent is then discharged to the Sydenham River. The plant was first built in the late 1960s with a major expansion and upgrading of the facility in 1991.

The rated capacity of the plant is 10,800m<sup>3</sup>/day average day flow calculated for the calendar year.

Maximum hydraulic capacity for primary treatment and disinfection facilities is 35,000m<sup>3</sup>/day.

The following processes are included in this treatment system:

- Raw sewage pumping
- Screening collection and removal
- Aerated grit tank
- Primary treatment of raw sewage with sludge collection
- Chemical phosphorus removal
- Biological treatment using Conventional Activated Sludge for secondary treatment
- Final Settling
- Disinfection of final effluent using Ultra Violet Light
- Sludge holding tanks

However, beginning December 2012, biosolids handling has been centralized, and the sludge is being transferred to Chatham WPCP for further processing.

## **REPORTING REQUIREMENTS**

### **Under Amended Environmental Compliance Approval # 3022-9JMQZ6**

#### **Summary and Interpretation of Monitoring and Comparison to the Effluent Limits: Condition 10 (6) (a)**

Tables 1 and 2 outline monthly average results of parameters tested compared to the limits outlined in the Environmental Compliance Approval Table 2 Effluent Limits.

No criteria were exceeded during this reporting period for the effluent limits as outlined in the Environmental Compliance Approval Table 2 Effluent Limits

#### ***Success and Adequacy of the Works***

During the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2018, the annual average daily flow was 6,675 m<sup>3</sup>/day, which represents approximately 62% of the rated capacity of 10,800 m<sup>3</sup>/day. The maximum daily flow was 29,880 m<sup>3</sup>/day, which is 85% of the Peak Flow Rate of 35,000 m<sup>3</sup>/day.

Overall, the facility performed well during the reporting period.

**Table 1: Summary of Monitoring Data and Comparison to Effluent Limits & Objectives – Concentrations (January 1 to June 30, 2018) as well as rated capacity to the sewage works**

**Plant Rated Capacity: 10,800 m<sup>3</sup>/day average daily flow**

**Total sewage flow to the works during a calendar year divided by the number of days during which sewage was flowing to the works that year**

Month	Total Monthly Influent Flow m <sup>3</sup>	Avg Daily Influent Flow /Month m <sup>3</sup> /day	Avg Daily Influent Flow/Year m <sup>3</sup> /day	% of Plant Capacity	Final Effluent CBOD <sub>5</sub> mg/L	Final Effluent Total S.S. mg/L	Final Effluent Total Ammonia mg/L	Final Effluent Total P mg/L	Final Effluent pH	Final Effluent E.coli
Limits: Dec 15 – Apr 15	None	None	10,800	100	25	25	3.0	1.0	6.5 - 8.5	200
Limits: Apr 16 – Dec 14	None	None	10,800	100	25	25	1.5	1.0	6.5 - 8.5	200
Objectives: Dec 15 – Apr 15	None	None	10,800	100	15	15	2.0	0.5	6.5 - 8.5	150
Objectives: Apr 16 – Dec 14	None	None	10,800	100	15	15	1.0	0.5	6.5 - 8.5	150
<b>Jan</b>	199,250	6,427			2.0	3.6	0.19	0.34	7.75	11.5
<b>Feb</b>	256,830	9,173			2.7	7.2	0.40	0.31	7.85	56.7
<b>Mar</b>	185,086	5,971			2.0	4.0	0.27	0.28	7.79	22.1
<b>Apr</b>	266,620	8,887			2.0	3.8	0.06	0.32	8.02	23.8
<b>May</b>	198,620	6,407			2.3	3.8	0.06	0.40	7.94	11.9
<b>Jun</b>	175,625	5,854			3.5	4.5	0.11	0.57	7.77	10.0
<b>Jul</b>										
<b>Aug</b>										
<b>Sep</b>										
<b>Oct</b>										
<b>Nov</b>										
<b>Dec</b>										
<b>Year</b>			7,083	65.6%						
	Total Flow m <sup>3</sup>	Maximums								
	1,282,031	9,173			3.5	7.2	0.40	0.57	8.02	56.7

**Table 2: Summary of Monitoring Data and Comparison to Effluent Limits – Loadings (January 1 to June 30, 2018)**

Month	Avg Daily Influent Flow /Month m <sup>3</sup> /day	CBOD <sub>5</sub> Kg/Day	Total S.S. Kg/Day	Total P Kg/Day	Total Ammonia Kg/day
Limits: Dec 15 – Apr 15	None	270	270	10.8	32.4
Limits: Apr 16 – Dec 14	None	270	270	10.8	16.2
Jan	6,427	13	23	2.2	1.2
Feb	9,173	24	66	2.9	3.7
Mar	5,971	12	24	1.7	1.6
Apr	8,887	18	34	2.8	0.5
May	6,407	14	24	2.6	0.4
Jun	5,854	20	26	3.4	0.6
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
		<b>Maximums</b>			
		24	66	3.4	3.7

**Operating Problems and Corrective Actions**  
**Condition 10 (6) (b) (January 1 to June 30, 2018)**

No major operational problems occurred during this reporting period.

**Summary of Maintenance Activities**  
**Condition 10 (6) (c) (January 1 to June 30, 2018)**

All regular and routine maintenance in the plant was carried out during this reporting period. Primary and final clarifiers were drained and cleaned, and mechanical maintenance was performed on the chains and drive motors. Aeration tanks were drained and cleaned, and the diffusers inspected and cleaned. The Ultra Violet disinfection system was cleaned and maintained at regular intervals throughout the year.

A computerized maintenance system is in place at this facility in order to track regularly scheduled maintenance tasks. In addition to the routine maintenance, the following additional maintenance activities and equipment replacement was completed for the reporting period:

- New Sampler for Primary \$ 8,469
- New UV Bulbs 17,600
- Flights and chains 17,505

**Quality Assurance and Control Measures**  
**Condition 10 (6) (d) (January 1 to June 30, 2018)**

Wallaceburg Water Pollution Plant followed a sampling schedule developed in accordance with the Certificate of Approval and applicable regulations for this reporting period.

Composite chemistry samples of the raw flow were collected using an auto sampler. Chemistry samples were submitted weekly to an accredited laboratory for analysis of BOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus, Alkalinity, Total Kjeldahl Nitrogen, Total Ammonia, pH, Nitrite and Nitrate.

Composite chemistry samples of the effluent were collected using an auto sampler. Chemistry samples were submitted weekly to an accredited laboratory for analysis of CBOD, Total Suspended Solids, Total Phosphorus, Alkalinity, Total Kjeldahl Nitrogen, Total Ammonia, pH, Alkalinity, Nitrite and Nitrate.

Bacteriological samples of the effluent were collected weekly according to the Sampling Program. Bacteriological samples were submitted weekly to an accredited laboratory for analysis.

In house samples were analyzed by a licensed operator for pH, DO, and temperature.

**Calibration and Maintenance on Effluent Monitoring Equipment**  
**Condition 10 (6) (e) (January 1 to June 30, 2018)**

All required probes and sensors are cleaned, maintained and/or calibrated on a monthly basis or as required by manufacturers' specifications.

Monitoring equipment calibration/verification report(s) included for the following:

- Influent flow meters
- Effluent flow meter
- Spectrophotometer
- DO meter
- pH meter

**Effluent Objectives**  
**Condition 10 (6) (f) (January 1 to June 30, 2018)**

Table 1 outlines monthly average results of parameters tested compared to the objectives outlined in the Environmental Compliance Approval Table 1 Effluent Objectives.

The following criteria was exceeded during this reporting period for the effluent objectives outlined in Condition 6 Effluent Objectives of the Environmental Compliance Approval:

Total Phosphorus concentration: June

Continuing optimization of chemical feed was practiced throughout the period with the goal of achieving effluent objectives.

**Sludge Management**  
**Condition 10 (6) (g) (January 1 to June 30, 2018)**

During the reporting period, no dry sludge was transferred from the site. Liquid sludge from the digester was transferred to the Chatham WPCP by Logan Agri-Flush.

***Tabulation of the Volume of Sludge Generated***

	<b>SLUDGE VOLUME in m<sup>3</sup></b>	<b>TRANSFER TO LOCATION</b>
Total transferred during the reporting period of January 1 to June 30, 2018	5387.86	Chatham WPCP

***Outline of Anticipated Volumes and Handling Methods in Next Reporting Period***

It is anticipated that approximately 15,000 m<sup>3</sup> liquid sludge will be generated during the next calendar year and that all liquid sludge produced will be transferred to Chatham WPCP.

**Community Complaints:**  
**Condition 10 (6) (h) (January 1 to June 30, 2018)**

There were no Customer Complaints received during the reporting period of January 1, 2018 to June 30, 2018.

**By-pass, Spill, or Abnormal Discharge Events:**  
**Condition 10 (6) (i) (January 1 to June 30, 2018)**

Bypass report(s) included for the following date(s):

- February 20 to February 21, 2018

**Notice of Modification submitted to the Water Supervisor as a result of Schedule B, Section 1, Condition 10 (6) (j) (January 1 to June 30, 2018)**

- None

**All modifications completed as a result of Schedule B, Section 3, Condition 10 (6) (k) (January 1 to June 30, 2018)**

- None

**Other Information the Water Supervisor Requires:  
Condition 10 (6) (l) (January 1 to June 30, 2018)**

No other information was required by the Water Supervisor during this reporting period.

**REPORTING REQUIREMENTS**

**Under Amended Environmental Compliance Approval # 1739-AXNJMV**

**Summary and Interpretation of Monitoring and Comparison to the Effluent Limits:  
Condition 11 (3) (a)**

Tables 1 and 2 outline monthly average results of parameters tested compared to the limits outlined in the Environmental Compliance Approval Table 2 Effluent Limits.

No criteria were exceeded during this reporting period for the effluent limits as outlined in the Environmental Compliance Approval Table 2 Effluent Limits

***Success and Adequacy of the Works***

During the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2018, the annual average daily flow was 6,675 m<sup>3</sup>/day, which represents approximately 62% of the rated capacity of 10,800 m<sup>3</sup>/day. The maximum daily flow was 29,880 m<sup>3</sup>/day, which is 85% of the Peak Flow Rate of 35,000 m<sup>3</sup>/day.

Overall, the facility performed well during the reporting period.

**Table 1: Summary of Influent and Imported Sewage monitoring data as well as rated capacity to the sewage works (July 1 to December 31, 2018)**

**Plant Rated Capacity: 10,800 m<sup>3</sup>/day average daily flow**

**Total sewage flow to the works during a calendar year divided by the number of days during which sewage was flowing to the works that year**

Month	Total Monthly Raw Flow m <sup>3</sup>	Total Monthly Imported Sewage Flow m <sup>3</sup>	Avg Daily Raw Flow /Month m <sup>3</sup> /day	Avg Daily Raw Flow /Year m <sup>3</sup> /day	% of Plant Capacity	Raw BOD <sub>5</sub> mg/L	Raw Total S.S. mg/L	Raw Total P mg/L	Raw Alkalinity mg/L	Raw TKN mg/L
Limits:	None	Included in Raw Flow	None	4,045	100					
Objectives:					80					
Jan										
Feb										
Mar										
Apr										
May										
Jun										
Jul	189,211	33.05	6,104			74	99	1.8	212.0	13.2
Aug	192,680	121.61	6,215			71	118	2.0	217.5	14.3
Sept	161,110	40.23	5,370			93	109	2.4	222.5	18.0
Oct	199,270	75.47	6,428			88	94	1.9	240.6	15.7
Nov	228,350	37.73	7,612			110	115	2.0	267.3	15.5
Dec	183,850	29.55	5,931			80	126	2.5	255.5	20.7
Year				6,675 <i>(2018 total)</i>	62% <i>(2018 total)</i>					
	<b>Yearly Total Flow m<sup>3</sup></b>	<b>Maximums</b>								
	2,436,502 <i>(2018 total)</i>	121.61	7,612			110	126	2.5	267.3	20.7



**Summary and Interpretation of Final Effluent Monitoring Data and Rated Capacity  
Condition 11 (3) (b) of the ECA**

Tables 2.1, 2.2, 3.1 and 3.2 under this section outline a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;

**Table 2.1: Summary of Monitoring Data and Comparison to Final Effluent Limits & Objectives (July 1 to December 31, 2018)**

Month	Total Monthly Effluent Flow m <sup>3</sup>	Avg Daily Effluent Flow /Month m <sup>3</sup> /day	Avg Daily Flow/Year m <sup>3</sup> /day	CBOD <sub>5</sub> mg/L	Total S.S. mg/L	Total Ammonia mg/L	Total P mg/L	pH	E.Coli cfu/100mL GeoMean
Limits: Dec 15 – Apr 15	None	None	10,800	25	25	3.0	1.0	6.0 - 9.5	200
Limits: Apr 16 – Dec 14	None	None	10,800	25	25	1.5	1.0	6.0 - 9.5	200
Objectives: Dec 15 – Apr 15	None	None	10,800	15	15	2.0	0.5	6.5 - 8.5	150
Objectives: Apr 16 – Dec 14	None	None	10,800	15	15	1.0	0.5	6.5 - 8.5	150
Jan									
Feb									
Mar									
Apr									
May									
Jun									
Jul	198,280	6,417		2.1	6.7	0.14	0.50	7.76	10.0
Aug	205,730	6,636		3.0	6.7	0.56	0.31	7.77	10.0
Sep	170,750	5,692		2.3	3.5	0.24	0.23	7.80	5.8
Oct	219,140	7,069		3.8	3.6	0.20	0.23	7.54	11.3
Nov	244,492	8,150		4.0	7.5	0.12	0.31	7.62	14.3
Dec	205,310	6,623		3.0	3.8	0.10	0.27	7.45	11.0
Year									
	Total Flow m <sup>3</sup>	Maximums							
	1,244,353	8,150		4.0	7.5	0.56	0.50	7.80	14.3

**Table 2.2: Summary of Monitoring Data and Comparison to Final Effluent Limits & Objectives (January 1 to December 31, 2018)**

Month	Total Monthly Effluent Flow m <sup>3</sup>	Avg Daily Effluent Flow /Month m <sup>3</sup> /day	Avg Daily Flow/Year m <sup>3</sup> /day	CBOD <sub>5</sub> mg/L	Total S.S. mg/L	Total Ammonia mg/L	Total P mg/L	pH	E.Coli cfu/100mL GeoMean
Limits: Dec 15 – Apr 15	None	None	10,800	25	25	3.0	1.0	6.0 - 9.5	200
Limits: Apr 16 – Dec 14	None	None	10,800	25	25	1.5	1.0	6.0 - 9.5	200
Objectives: Dec 15 – Apr 15	None	None	10,800	15	15	2.0	0.5	6.5 - 8.5	150
Objectives: Apr 16 – Dec 14	None	None	10,800	15	15	1.0	0.5	6.5 - 8.5	150
Jan	216,720	6,991		2.0	3.6	0.19	0.34	7.75	11.5
Feb	267,970	9,570		2.7	7.2	0.40	0.31	7.85	56.7
Mar	214,250	6,911		2.0	4.0	0.27	0.28	7.79	22.1
Apr	286,480	9,549		2.0	3.8	0.06	0.32	8.02	23.8
May	221,700	7,152		2.3	3.8	0.06	0.40	7.94	11.9
Jun	193,280	6,443		3.5	4.5	0.11	0.57	7.77	10.0
Jul	198,280	6,417		2.1	6.7	0.14	0.50	7.76	10.0
Aug	205,730	6,636		3.0	6.7	0.56	0.31	7.77	10.0
Sep	170,750	5,692		2.3	3.5	0.24	0.23	7.80	5.8
Oct	219,140	7,069		3.8	3.6	0.20	0.23	7.54	11.3
Nov	244,492	8,150		4.0	7.5	0.12	0.31	7.62	14.3
Dec	205,310	6,623		3.0	3.8	0.10	0.27	7.45	11.0
Year			7,246						
	Yearly Total Flow m <sup>3</sup>	Yearly Maximums							
	2,644,753	9,549		4.0	7.5	0.56	0.57	8.02	56.7

**Table 3.1: Summary of Monitoring Data and Comparison to Effluent Loading Limits (July 1 to December 31, 2018)**

Month	Avg Daily Influent Flow /Month m <sup>3</sup> /day	CBOD <sub>5</sub> Kg/Day	Total S.S. Kg/Day	Total P Kg/Day	Total Ammonia Kg/day
Limits: Dec 15 – Apr 15	None	270	270	10.8	32.4
Limits: Apr 16 – Dec 14	None	270	270	10.8	16.2
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul	6,104	13	37	3.1	0.9
Aug	6,215	19	41	1.9	3.5
Sep	5,370	12	19	1.2	1.3
Oct	6,428	24	23	1.5	1.3
Nov	7,612	30	57	2.4	0.93
Dec	5,931	18	22	1.6	0.6
<b>Maximums</b>					
		30	57	3.1	3.5

**Table 3.2: Summary of Monitoring Data and Comparison to Effluent Loading Limits (January 1 to December 31, 2018)**

Month	Avg Daily Influent Flow /Month m <sup>3</sup> /day	CBOD <sub>5</sub> Kg/Day	Total S.S. Kg/Day	Total P Kg/Day	Total Ammonia Kg/day
Limits: Dec 15 – Apr 15	None	270	270	10.8	32.4
Limits: Apr 16 – Dec 14	None	270	270	10.8	16.2
Jan	6,427	13	23	2.2	1.2
Feb	9,173	24	66	2.9	3.7
Mar	5,971	12	24	1.7	1.6
Apr	8,887	18	34	2.8	0.5
May	6,407	14	24	2.6	0.4
Jun	5,854	20	26	3.4	0.6
Jul	6,104	13	37	3.1	0.9
Aug	6,215	19	41	1.9	3.5
Sep	5,370	12	19	1.2	1.3
Oct	6,428	24	23	1.5	1.3
Nov	7,612	30	57	2.4	0.93
Dec	5,931	18	22	1.6	0.6
<b>Yearly Maximums</b>					
		30	66	3.4	3.7

**Success and Adequacy of the Works**

No criteria were exceeded during this reporting period of July 1<sup>st</sup> to December 31<sup>st</sup>, 2019 for the effluent limits as outlined in Schedule B – Concentration Limits and Loading Limits of the ECA.

**Monitoring Schedule and Summary of any Deviations from the Monitoring Schedule  
Condition 11 (3) (c) (July 1 to December 31, 2018)**

Monitoring Samples from September 1<sup>st</sup>, 2018 to August 30<sup>th</sup>, 2019 will be sampled weekly, generally on Tuesdays.

Monitoring Samples from September 1<sup>st</sup>, 2019 to August 30<sup>th</sup>, 2020 will be sampled weekly, generally on Wednesdays.

The regular weekly sampling day may be impacted by Statutory Holidays and Union Holidays.

**Summary of all Operating Issues encountered and Corrective Actions taken  
Condition 11 (3) (d) (July 1 to December 31, 2018)**

There were no significant operating issues encountered during this reporting period.

**Summary of all Normal and Emergency Repairs and Maintenance Activities carried out on any Major Structure, Equipment, Apparatus or Mechanism forming part of the Works  
Condition 11 (3) (e) (July 1 to December 31, 2018)**

All regular and routine maintenance in the plant was carried out during this reporting period. Primary and final clarifiers were drained and cleaned, and mechanical maintenance was performed on the chains and drive motors. Aeration tanks were drained and cleaned, and the diffusers inspected and cleaned. The Ultra Violet disinfection system was cleaned and maintained at regular intervals throughout the year.

A computerized maintenance system is in place at this facility in order to track regularly scheduled maintenance tasks. In addition to the routine maintenance, the following additional maintenance activities and equipment replacement was completed for the reporting period:

- Libby St. Electrical Upgrade \$40,500
- Aeration Tank and Concrete 40,000
- Peter St. Electrical Upgrade 32,855
- Main Sewage Inlet Gate 4,500
- Wellington St. PS Electrical Upgrade 33,200
- SCADA upgrades 90,000

**Summary of any Effluent Quality Assurance or Control Measures undertaken  
Condition 11 (3) (f) (July 1 to December 31, 2018)**

Wallaceburg Water Pollution Plant followed a sampling schedule developed in accordance with the Certificate of Approval and applicable regulations for this reporting period.

Composite chemistry samples of the raw flow were collected using an auto sampler. Chemistry samples were submitted weekly to an accredited laboratory for analysis of BOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus, Alkalinity, Total Kjeldahl Nitrogen, Total Ammonia, pH, Nitrite and Nitrate.

Composite chemistry samples of the effluent were collected using an auto sampler. Chemistry samples were submitted weekly to an accredited laboratory for analysis of CBOD, Total Suspended Solids, Total Phosphorus, Alkalinity, Total Kjeldahl Nitrogen, Total Ammonia, pH, Alkalinity, Nitrite and Nitrate.

Bacteriological samples of the effluent were collected weekly according to the Sampling Program. Bacteriological samples were submitted weekly to an accredited laboratory for analysis.

In house samples were analyzed by a licensed operator for pH, DO, and temperature.

**Summary of the Calibration and Maintenance carried out on all Influent, Imported Sewage and Final Effluent Monitoring Equipment  
Condition 11 (3) (g) (July 1 to December 31, 2018)**

All required probes and sensors are cleaned, maintained and/or calibrated on a monthly basis or as required by manufacturers' specifications.

Monitoring equipment calibration/verification report(s) included for the following:

- Influent flow meters
- Effluent flow meter
- Spectrophotometer
- DO meter
- pH meter

**Summary of any Effluent Quality Assurance or Control Measures Undertaken to Achieve Design Objectives  
Condition 11 (3) (h) (July 1 to December 31, 2018)**

Table 2.1 and Table 2.2 outline monthly average results of parameters tested compared to the objectives outlined in the Environmental Compliance Approval Schedule B Final Effluent Design Objectives.

The following criteria was exceeded during this reporting period for the effluent objectives outlined in Condition 6 Effluent Objectives of the Environmental Compliance Approval:

None.

Continuing optimization of chemical feed was practiced throughout the year with the goal of achieving effluent objectives.

- i) Design Objectives have been met > 50% of the time  
There are no increasing trends in deterioration of Final Effluent Quality
- ii) The Annual Average Daily Influent Flow has been maintained under 80% of the Rated Capacity during the reporting period

**Sludge Management  
Condition 11 (3) (i)**

During the reporting period, no dry sludge was transferred from the site. Liquid sludge from the digester was transferred to the Chatham WPCP by Logan Agri-Flush.

***Tabulation of the Volume of Sludge Generated (July 1 to December 31, 2019)***

	<b>SLUDGE VOLUME in m<sup>3</sup></b>	<b>TRANSFER TO LOCATION</b>
Total transferred during the reporting period of July 1, 2018 to December 31, 2018	5,337.32	Chatham WPCP

***Tabulation of the Volume of Sludge Generated (January 1 to December 31, 2019)***

	<b>SLUDGE VOLUME in m<sup>3</sup></b>	<b>TRANSFER TO LOCATION</b>
Total transferred during the reporting period January 1, 2018 to December 31, 2018	10,725.18	Chatham WPCP

***Outline of Anticipated Volumes and Handling Methods in Next Reporting Period***

It is anticipated that approximately 15,000 m<sup>3</sup> liquid sludge will be generated during the next reporting period and that all liquid sludge produced will be transferred to Chatham WPCP.

**Community Complaints:  
Condition 11 (3) (j) (July 1 to December 31, 2018)**

There were no Customer Complaints received during the reporting period.

**Summary of all Bypasses, Overflows, Spills within the meaning of Part X of EPA and abnormal discharge events, and other abnormal discharge events  
Condition 11 (3) (k) (July 1 to December 31, 2018)**

Bypass report(s) included for the following date(s):

- July 24
- August 21

**Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a Report on the Status of Implementation of all Modifications Condition 11 (3) (l) (July 1 to December 31, 2018)**

- None

**Summary of Efforts made to Achieve Conformance with Procedure F-5-1 including Projects Undertaken and Completed in the Sanitary Sewer System that result in overall Bypass/Overflow Elimination Condition 11 (3) (m)**

***Proposed Projects including Expenditures:***

The following are budget approved projects that are scheduled for the next reporting period.

Mainlift #1 VFD Replacement	\$12,500
Arnold St. Pump Station Utility Upgrade	30,000

***Estimated Budget Forecast for Following Year:***

The estimated budget forecasted for 2019 Bypass/Overflow Elimination projects in the sanitary sewer system is \$0.

**Changes / Updates to the Schedule for the Completion of Construction and Commissioning Operation of Major Process(es) / Equipment Groups in the Proposed Works Condition 11 (3) (n)**

There are no changes/updates to the schedule for any of the proposed works.



## **APPENDIX A**

### **Yearly Operational Data Summary for the Reporting Period**

## Operational Data Summary Yearly

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	TOTAL	MAX	MIN	AVG
<b>Raw Sewage</b>																
Flow 1000 m <sup>3</sup>	199.250	256.830	185.086	266.620	198.620	175.625	189.211	192.680	161.110	199.270	228.350	183.850	2436.502	266.620	161.110	203.042
Avg. Daily Flow 1000 m <sup>3</sup> /d	6.427	9.173	5.971	8.887	6.407	5.854	6.104	6.215	5.370	6.428	7.612	5.931		9.173	5.370	6.698
Max Daily Flow 1000 m <sup>3</sup> /d	12.330	29.880	9.940	28.800	9.480	7.980	9.880	13.100	11.610	12.400	16.500	8.260		29.880	7.980	14.180
<b>Final Effluent</b>																
Flow 1000 m <sup>3</sup>	216.720	267.970	214.250	286.480	221.700	193.280	198.931	205.730	170.750	219.140	244.492	205.310	2644.753	286.480	170.750	220.396
Avg. Daily Flow 1000 m <sup>3</sup> /d	6.991	9.570	6.911	9.549	7.152	6.443	6.417	6.636	5.692	7.069	8.150	6.623		9.570	5.692	7.267
Peak Flow 1000 m <sup>3</sup> /d	23.100	34.930	27.100	34.930	26.500	31.600	34.900	28.530	28.310	26.530	34.920	27.400		34.930	23.100	29.896
<b>Raw Sludge to Holding</b>																
Total Volume Out m <sup>3</sup>	1001.00	900.00	925.00	891.00	823.00	692.00	932.00	840.00	1165.00	1086.38	1050.00	690.72	10996.10	1165.00	690.72	916.342
<b>Holding Tank to CWPCP</b>																
Total Volume Out m <sup>3</sup>	1065.30	993.74	858.39	889.69	889.27	691.47	794.89	824.73	1031.17	1089.93	1091.01	505.59	10725.18	1091.01	505.59	893.765
Avg. T.S. %	3.05	3.51	4.52	3.87	4.74	3.99	3.24	2.38	2.32	2.56	2.98	3.62		4.7	2.3	3.397
<b>Ferrous Chloride Usage</b>																
Total Litres Used	3499	3024	3348	3240	3348	3780	5162	4824	4594	4910	4752	4910	49392.0	5162.4	3024.0	4116.000
<b>Final Effluent Loadings</b>																
COD <sub>5</sub> kg/d	12.85	24.46	11.94	17.77	14.42	20.49	13.08	18.65	12.08	24.43	30.45	17.79		30.45	11.94	18.20
Solids, Suspended kg/d	23.14	65.74	23.88	33.77	24.03	26.34	36.62	41.44	18.80	23.14	57.09	22.24		65.74	18.80	33.02
Phosphorous, Total as P, kg/d	2.17	2.86	1.67	2.83	2.58	3.35	3.08	1.91	1.21	1.49	2.36	1.59		3.35	1.21	2.26
Ammonia as N, kg/d	1.23	3.70	1.58	0.51	0.38	0.63	0.86	3.46	1.26	1.29	0.93	0.56		3.70	0.38	1.37

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	TOTAL	MAX	MIN	AVG
<b>Disinfection</b>																
results are geometric means																
E. Coli Before U.V. CFU/100ml														0	0	
E. Coli After U.V. CFU/100ml	11.49	56.67	22.13	23.78	11.89	10.00	10.00	10.00	5.83	11.30	14.27	10.95		56.67	5.8	16.5
# of Samples	5	3	4	5	4	4	5	4	4	5	4	4	51			
<b>Raw Sewage</b>																
Ammonia as N, mg/L	14.78	10.88	12.03	9.42	9.23	10.95	10.94	11.50	15.50	10.04	9.26	13.79		15.5	9.23	11.53
BOD5, mg/L	99	83	101	61	66	67	74	71	93	88	110	80		110.3	61.4	82.72
Nitrogen, T. Kjeldahl as N, mg/L	17.60	15.13	16.50	12.98	12.25	14.25	13.20	14.25	18.00	15.74	15.53	20.73		20.73	12.25	15.51
PH	7.54	7.64	7.59	7.76	7.71	7.63	7.57	7.59	7.56	7.48	7.59	7.57		7.758	7.48	7.60
Phosphorous, Total as P, mg/L	2.6	2.0	2.7	1.6	2.0	1.9	1.8	2.0	2.4	1.9	2.0	2.5		2.70	1.60	2.11
Solids, Suspended, mg/L	180	114	203	158	109	115	99	118	109	94	115	126		202.50	94.00	128.18
Alkalinity CaCO3, mg/L	260.00	262.50	277.50	266.00	262.50	222.50	212.00	217.50	222.50	240.60	267.25	255.50		277.50	212.00	247.20
Nitrite as N, mg/L	0.10	0.23	0.01	0.08	0.02	0.01	0.01	0.01	0.01	0.10	0.10	0.10		0.23	0.01	0.07
Nitrate as N, mg/L	0.10	0.43	0.10	0.13	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.15		0.43	0.10	0.14
# of Samples	5	4	4	5	4	4	5	4	4	5	4	4	52			
<b>Final Effluent</b>																
Ammonia as N, mg/L	0.19	0.40	0.27	0.06	0.06	0.11	0.14	0.56	0.24	0.20	0.12	0.10		0.56	0.06	0.20
Total CBOD5, mg/L	2.00	2.67	2.00	2.00	2.25	3.50	2.14	3.00	2.25	3.80	4.00	3.00		4.00	2.00	2.72
Nitrogen, T. Kjeldahl as N, mg/L	0.55	0.87	0.75	0.81	1.08	0.98	0.65	0.89	0.63	1.58	1.58	1.35		1.58	0.55	0.98
PH	7.75	7.85	7.79	8.02	7.94	7.77	7.66	7.77	7.80	7.54	7.62	7.45		8.02	7.45	7.75
Phosphorous, Total as P, mg/L	0.34	0.31	0.28	0.32	0.40	0.57	0.50	0.31	0.23	0.23	0.31	0.27		0.57	0.23	0.34
Solids, Suspended, mg/L	3.60	7.17	4.00	3.80	3.75	4.50	6.00	6.67	3.50	3.60	7.50	3.75		7.50	3.50	4.82
Alkalinity CaCO3, mg/L	158.00	185.00	187.50	190.00	180.00	132.50	120.00	145.00	122.50	171.00	198.00	156.00		198.00	120.00	162.13
Nitrite as N, mg/L	1.63	0.12	0.11	0.04	0.19	0.12	0.09	0.09	0.09	0.22	0.18	0.10		1.63	0.04	0.25
Nitrate as N, mg/L	11.08	10.39	12.89	13.14	11.79	13.83	13.90	11.27	13.10	10.68	10.08	14.05		14.05	10.08	12.18
# of Samples	5	6	4	5	4	4	7	6	4	5	4	4	58			
Temperature C	9.4	8.8	9.4	10.2	14.8	18.4	21.8	22.5	21.4	19.0	14.7	12.8		22.5	8.8	15.3
D.O., mg/L	6.7	7.4	7.3	7.5	6.6	5.6	6.7	6.0	5.2	6.1	7.3	7.5		7.5	5.2	6.7
# of Samples	31	28	31	29	29	30	30	30	29	31	30	31	359			
Unionized Ammonia (Pro) ug/L	0.001	0.004	0.001	0.001	0.001	0.002	0.003	0.027	0.003	0.010	10.000	0.010		10.00	0.00	0.84
<b>Federal (Quarterly)</b>																
Final Flow Qtr. m3	698940.0			701460.0			575411.0			668942.00						
CBOD Qtr. mg/L	2.2			2.6			2.5			3.60						
SS Qtr. mg/L	4.9			4.0			5.4			4.95						
Number of Days	90			91			92			92						

<b>Imported Sewage</b>														
BOD5, mg/L														
Nitrogen, T. Kjeldahl as N, mg/L														
Phosphorous, Total as P, mg/L														
Solids, Suspended, mg/L														
	796.50	3405.00	3427.50	1900.00	719.50	2930.00	1643.33		3427.5	719.50			2117.40	
	89	1218	225	150	189	995	464		1217.5	89			475.75	
	105.50	393.50	124.00	49.67	27.14	288.67	157.13		393.50	27.14			163.66	
	10550.00	9037.50	11300.00	4633.33	2040.00	32066.67	7133.33		32066.667	2040.00			10965.83	

<b>Federal WSER Acute Lethality</b>	
Average Daily Volume Effluent (m <sup>3</sup> ):	7246

**APPENDIX B**

**Calibration Reports for the Reporting Period**

### AS FOUND CERTIFICATION

### FORWARD FLOW DIRECTION

### PASS

CLIENT DETAIL		EQUIPMENT DETAIL	
CUSTOMER	Municipality of Chatham-Kent - North	[MUT] MANUFACTURER	ABB (Fisher & Porter)
CONTACT	Brian Patrick	MODEL	FSM4000
	Senior/Chief Operator, OWRC Wallaceburg Pollution Control Plant	CONVERTER SERIAL NUMBER	240664339/Y011
	795 Gillard Street	FUSE	Disconnect Switch at Unit
	Wallaceburg, ON N8A 5G7	PLANT ID	OWRC Wallaceburg PCP
	T: 519-627-1211	METER ID	Pump 1 Flow Meter
	C: 519-354-5664	FIT ID	FIT-01
	E: brianpa@chatham-kent.ca	CLIENT TAG	N/A
		OTHER	N/A
		GPS COORDINATES	N/A
VER. BY - FM	Paris Machuk	VERIFICATION DATE	January 30, 2018
Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was		CAL. FREQUENCY	Annual
		CAL. DUE DATE	January, 2019

PROGRAMMING PARAMETERS			FORWARD TOTALIZER INFORMATION		
DIAMETER (DN)	mm	150	AS FOUND	3864747	M3
F.S. FLOW - MAG	M3/D	14400.0	AS LEFT	3864775	M3
F.S. RANGE - O/P	M3/D	11360.0	DIFFERENCE	28	M3
SYSTEM ZERO SETTING (%)		1.278			
* SYSTEM ZERO SETTING HAS TO BE CHANGED TO 0% FOR SIMULATION AND THEN SET BACK TO ORIGINAL SETTING AFTER SIMULATION IS COMPLETE			<b>TEST CRITERIA</b>		
- Programming Level - "Specialist"			AS FOUND CERTIFICATION TEST	Yes	
- Submenu "System Adjust", goto "System Zero" and record value above and set to 0%			FORWARD FLOW DIRECTION	Yes	
- go to Submenu "Function Test", "Test Mode" and set to "On"			ALLOWABLE [%] ERROR	5	
NOTE: Retrun "System Zero" value back to original after simulation is complete!			<b>COMPONENTS TESTED</b>		
			CONVERTER DISPLAY	yes	
			mA OUTPUT	yes	
			TOTALIZER	yes	
			ACCURACY BASED ON [% o.r.]	yes	
			ERROR DOCUMENTED IN THIS REPORT; BASED ON % o.r.		

FLOW TUBE SIMULATION							
		0.00	1.97	3.94	5.92	7.89	% Dial (m/s)
		0.00	19.72	39.44	59.17	78.89	% F.S. Flow
		0.0	25.0	50.0	75.0	100.0	% F.S. Range
<b>REF. FLOW RATE</b>		0.00	2840.00	5680.00	8520.00	11360.00	M3/D
MUT [Reading]		0.00	2845.46	5689.79	8549.33	11393.90	M3/D
MUT [Difference]		0.00	5.46	9.79	29.33	33.90	M3/D
MUT [% Error]		n/a	0.19	0.17	0.34	0.30	%
<b>mA OUTPUT</b>		<b>4.000</b>	<b>8.000</b>	<b>12.000</b>	<b>16.000</b>	<b>20.000</b>	mA
MUT [Reading]	min. 4.000 mA	3.997	8.002	12.006	16.031	20.034	mA
MUT [Difference]	max. 20.000 mA	-0.003	0.002	0.006	0.031	0.034	mA
MUT [% Error]		-0.08	0.03	0.05	0.19	0.17	%
<b>TOTALIZER - REF. FLOW RATE</b>						<b>11360.000</b>	M3/D
TOTALIZER [MUT]						12	M3
TEST TIME						90.72	SECONDS
CALC. TOTALIZER						11.928	M3
ERROR						0.60	%

COMMENTS	QUALITY MANAGEMENT STANDARDS INFO.			RESULTS		
	[QMS] INFORMATION	IDENT.	ID #	TEST	AVG % o.r.	PASS FAIL
	[REFERENCE] FTS	F&P (ABB)	1			
PROCESS METER	DMM	2	mA OUTPUT	0.07	PASS	
ANALOG METER	AM	N/A	TOTALIZER	0.60	PASS	
STOP WATCH	SW	Yes				

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.

AS FOUND CERTIFICATION

FORWARD FLOW DIRECTION

PASS

CLIENT DETAIL

CUSTOMER Municipality of Chatham-Kent - North  
CONTACT Brian Patrick  
Senior/Chief Operator, OWRC Wallaceburg Pollution Control Plant  
795 Gillard Street  
Wallaceburg, ON N8A 5G7  
T: 519-627-1211  
C: 519-354-5664  
E: brianpa@chatham-kent.ca

**EQUIPMENT DETAIL**  
ABB (Fisher & Porter)  
MODEL FSM4000  
CONVERTER SERIAL NUMBER 240969335/Y007  
FUSE Disconnect Switch at Unit  
  
PLANT ID OWRC Wallaceburg PCP  
METER ID Pump 2 Flow Meter  
FIT ID FIT-02  
CLIENT TAG N/A  
OTHER N/A  
GPS COORDINATES N/A

VER. BY - FM Paris Machuk

Quality Management Standards Information -  
Reference equipment and instrumentation used to  
conduct this verification test is found in our AC-  
QMS document at the time this test was

VERIFICATION DATE January 30, 2018  
CAL. FREQUENCY Annual  
CAL. DUE DATE January, 2019

PROGRAMMING PARAMETERS

DIAMETER (DN) mm 150  
F.S. FLOW - MAG M3/D 14400.0  
F.S. RANGE - O/P M3/D 11360.0  
SYSTEM ZERO SETTING (%) -1.487

\* SYSTEM ZERO SETTING HAS TO BE CHANGED TO 0% FOR SIMULATION AND THEN SET BACK  
TO ORIGINAL SETTING AFTER SIMULATION IS COMPLETE

- Programming Level - "Specialist"
- Submenu "System Adjust", goto "System Zero" and record value above and set to 0%
- goto Submenu "Function Test", "Simulation Mode" and set to "On"

NOTE: Retrun "System Zero" value back to original after simulation is complete!

FORWARD TOTALIZER INFORMATION

AS FOUND 4822653 M3  
AS LEFT 4822683 M3  
DIFFERENCE 30 M3

TEST CRITERIA

AS FOUND CERTIFICATION TEST Yes  
FORWARD FLOW DIRECTION Yes  
ALLOWABLE [%] ERROR 5

COMPONENTS TESTED

CONVERTER DISPLAY yes  
mA OUTPUT yes  
TOTALIZER yes  
ACCURACY BASED ON [% o.r.] yes  
ERROR DOCUMENTED IN THIS REPORT; BASED ON % o.r.

FLOW TUBE SIMULATION

		0.00	1.97	3.94	5.92	7.89	% Dial (m/s)
		0.00	19.72	39.44	59.17	78.89	% F.S. Flow
		0.0	25.0	50.0	75.0	100.0	% F.S. Range
<b>REF. FLOW RATE</b>		0.00	2840.00	5680.00	8520.00	11360.00	M3/D
MUT [Reading]		0.00	2839.78	5678.81	8533.66	11373.80	M3/D
MUT [Difference]		0.00	-0.22	-1.19	13.66	13.80	M3/D
MUT [% Error]		n/a	-0.01	-0.02	0.16	0.12	%
<b>mA OUTPUT</b>		4.000	8.000	12.000	16.000	20.000	mA
MUT [Reading]	min. 4.000 mA	3.993	7.991	11.990	16.006	20.007	mA
MUT [Difference]	max. 20.000 mA	-0.007	-0.009	-0.010	0.006	0.007	mA
MUT [% Error]		-0.18	-0.11	-0.08	0.04	0.04	%
<b>TOTALIZER - REF. FLOW RATE</b>						11360.000	M3/D
TOTALIZER [MUT]						12	M3
TEST TIME						90.79	SECONDS
CALC. TOTALIZER						11.937	M3
ERROR						0.52	%

COMMENTS

QUALITY MANAGEMENT STANDARDS INFO.

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] FTS	F&P (ABB)	1
PROCESS METER	DMM	2
ANALOG METER	AM	N/A
STOP WATCH	SW	Yes

RESULTS

TEST	AVG % o.r.	PASS FAIL
DISPLAY	0.06	PASS
mA OUTPUT	-0.06	PASS
TOTALIZER	0.52	PASS

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.

CLIENT DETAIL		[MUT] MANUFACTURER	EQUIPMENT DETAIL
CUSTOMER	Municipality of Chatham-Kent - North	MODEL	ENDRESS & HAUSER
CONTACT	Brian Patrick Senior/Chief Operator, OWRC Wallaceburg Pollution Control Plant 795 Gillard Street Wallaceburg, ON N8A 5G7 T: 519-627-1211 C: 519-354-5664 E: brianpa@chatham-kent.ca	CONVERTER S/N:	Promag 53P 5B013016000
VER. BY - FM	Paris Machuk	PLANT ID	OWRC Wallaceburg PCP
Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was		METER ID	Raw Pump 3 Flow
		FIT ID	FIT-210
		CLIENT TAG	N/A
		OTHER	N/A
		GPS COORDINATES	N/A
		VERIFICATION DATE	January 30, 2018
		CAL. FREQUENCY	Annual
		CAL. DUE DATE	January, 2019

PROGRAMMING PARAMETERS			FORWARD TOTALIZER INFORMATION	
DIAMETER (DN)	mm	250	AS FOUND	6765116 M3
F.S. FLOW - MAG	M3/D	42410.250	AS LEFT	6765193 M3
F.S. RANGE - O/P	M3/D	22030.000	DIFFERENCE	77 M3
TUBE k-FACTOR		1.16040		
TUBE zero		0.00000		
			AS FOUND CERTIFICATION TEST	Yes
			FORWARD FLOW DIRECTION	Yes
			ALLOWABLE [%] ERROR	5
			CONVERTER DISPLAY	yes
			mA OUTPUT	yes
			TOTALIZER	yes
			ACCURACY BASED ON [% o.r.]	yes
			ERROR DOCUMENTED IN THIS REPORT; BASED ON % o.r.	

FLOW TUBE SIMULATION

		0.0	5507.5	11015.0	16522.5	22030.0	M3/D
		0.0	13.0	26.0	39.0	51.9	% F.S. Flow
		0.0	25.0	50.0	75.0	100.0	% F.S. Range
<b>REF. FLOW RATE</b>		0.0	5507.5	11015.0	16522.5	22030.0	M3/D
MUT [Reading]		0.0	5507.3	11019.0	16528.0	22044.0	M3/D
MUT [Difference]		0.0	-0.2	4.0	5.5	14.0	M3/D
MUT [% Error]		n/a	0.00	0.04	0.03	0.06	% O.R.
<b>mA OUTPUT</b>		4.000	8.000	12.000	16.000	20.000	mA
MUT [Reading]	min. 4 mA	3.996	7.997	11.998	15.997	20.007	mA
MUT [Difference]	max. 20 mA	-0.004	-0.003	-0.002	-0.003	0.007	mA
MUT [% Error]		-0.10	-0.04	-0.02	-0.02	0.04	% O.R.
<b>TOTALIZER - REF. FLOW RATE</b>						22030.000	M3/D
TOTALIZER [MUT]						20	M3
TEST TIME						79.00	SECONDS
CALC. TOTALIZER						20.143	M3
ERROR						-0.72	%

COMMENTS

Note: Scaling was changed from previous year from 864 m3/d to 21800 m3/d - confirmed with operator out put 20mA to SCADA - full scale should be 22030 m3/d or 22.03 MLD on SCADA. Programmed full scale to 22030 m3/d.

QUALITY MANAGEMENT STANDARDS INFO.

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] FTS	E&H (FC)	1
PROCESS METER	DMM	2
ANALOG METER	AM	N/A
STOP WATCH	SW	Yes

RESULTS

TEST	AVG % o.r.	PASS FAIL
DISPLAY	0.03	PASS
mA OUTPUT	-0.03	PASS
TOTALIZER - R	-0.72	PASS

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.



AS FOUND CERTIFICATION

PASS

CLIENT DETAIL

CUSTOMER Municipality of Chatham-Kent - North  
CONTACT Brian Patrick  
Senior/Chief Operator, CWRC Wallaceburg Pollution Control Plant  
795 Gillard Street  
Wallaceburg, ON N8A 5G7  
T: 519-627-1211  
C: 519-354-5664  
E: brianpa@chatham-kent.ca

EQUIPMENT DETAIL  
MODEL FEV125 WaterMaster  
SENSOR SERIAL NUMBER 3K620000184144  
CONVERTER SERIAL NUMBER 3K620000184144  
SENSOR SIZE (DN) 300  
PLANT ID Wallaceburg STP  
METER ID Raw Pump Flow# 4 Meter  
FIT ID N/A  
CLIENT TAG Raw Pump Flow# 4  
OTHER N/A  
GPS COORDINATES N/A

VER. BY - FM Paris Machuk

Quality Management Standards Information -  
Reference equipment and instrumentation used to  
conduct this verification test is found in our AC-  
QMS document at the time this test was

VERIFICATION DATE January 30, 2018  
CAL. FREQUENCY Annual  
CAL. DUE DATE January, 2019

SENSOR INFORMATION

Q3 m3/d 60000.00  
CALIBRATION ACCURACY OIML Class 2  
SENSOR CAL. ACCURACY 159.5  
mm/sec 0  
~ 11  
DATE OF MANUFACTURE June 10, 2015  
RUN HOURS d/h/m 151/22/10

TRANSMITTER INFORMATION

APPLICATION VERSION v01.05.00 12/07/12  
MSP VERSION 01.00.00  
DATE OF MANUFACTURE June 10, 2015  
RUN HOURS d/h/m 686/14/55  
ALLOWABLE TOLERANCE % 5.0

CURRENT OUTPUT

OUTPUT TEST	4.00	20.00	READING	ERROR	PASS
			mA	%	FAIL
4.0 mA	4.00	3.996	-0.10	PASS	
12.0 mA	12.00	11.982	-0.15	PASS	
20.0 mA	20.00	19.996	-0.02	PASS	

PULSE OUTPUT

OUTPUT TEST	READING	ERROR	PASS
	mA	%	FAIL
OUTPUT 1, Hz 500	N/A	N/A	N/A
OUTPUT 1, Hz 250	N/A	N/A	N/A
OUTPUT 2, Hz 100	N/A	N/A	N/A
OUTPUT 2, Hz 50	N/A	N/A	N/A

VERIFICATION HISTORY

OIML Accuracy Alarms 0

TOTALIZER INFORMATION

FORWARD 44442.35 m3  
REVERSE 5939.25 m3  
NET 38503.10 m3

SENSOR DATA

COIL CURRENT 179.9 mA  
COIL INDUCTANCE 282.2 mH  
COIL SHIFT 0.4 %  
COIL/LOOP RESISTANCE 35 ohm

TRANSMITTER DATA

TX GAIN - ADJUSTMENT -0.1 %

VeriMASTER INFORMATION

VERSION 01.00.01  
LIMIT VERSION 01.00.01

CONFIGURATION SETTINGS

MAINS/FREQUENCY 60 Hz  
QMAX 57781 m3/d  
PULSES/UNIT 10  
PULSES LIMIT FREQUENCY 1200 Hz  
SENSOR USER SPAN 100 %  
ZERO 0 mm/s  
USER FLOW CUTOFF 1 %  
HYSTERESIS 20 %  
METER MODE Normal Operation

COMMENTS

QUALITY MANAGEMENT STANDARDS INFO.

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] FTS	ABBWM	1
PROCESS METER	DMM	2

The information contained within this report was produced by "VeriMASTER - Flow Meter Verification Report". The AS LEFT information is the same as the AS FOUND information within this report. If changes have been made relative to the accuracy of the calibration, an AS LEFT certificate will be issued.

**AS FOUND CERTIFICATION**

**PASS**

CLIENT DETAIL		EQUIPMENT DETAIL	
CUSTOMER	Municipality of Chatham-Kent - North	[MUT] MANUFACTURER	Siemens
CONTACT	Brian Patrick Senior/Chief Operator, OWRC Wallaceburg Pollution Control Plant 795 Gillard Street Wallaceburg, ON N8A 5G7 T: 519-627-1211 C: 519-354-5664 E: brianpa@chatham-kent.ca	MODEL	LUT400
		CONVERTER SERIAL NUMBER	PBD/E0210026
		PLANT ID	OWRC Wallaceburg Pollution Control Plant
		METER ID	Final Effluent
		FIT ID	FIT-498
		CLIENT TAG	N/A
		OTHER	N/A
		GPS COORDINATES	N/A
		ADDRESS	795 Gillard Street
		VERIFICATION DATE	January 31, 2018
		CAL. FREQUENCY	Annual
		CAL. DUE DATE	January, 2019

VER. BY - FM Paris Machuk

Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was

PROGRAMMING PARAMETERS			TOTALIZER	
THROAT DIMENSION (DN)	inches	12	AS FOUND	n/a M3
EMPTY DISTANCE	m	1.030	AS LEFT	n/a M3
MAX. HEAD	m	0.704	DIFFERENCE	n/a M3
DEAD ZONE	m	0.326		
BLANKING DISTANCE	m	0.300	AS FOUND CERTIFICATION TEST	Yes
MAX. FLOW	MLD	35.0	ALLOWABLE [%] ERROR	5
F.S. RANGE - O/P	MLD	35.0		

TEST CRITERIA	
CONVERTER DISPLAY	yes
mA OUTPUT	yes
TOTALIZER	No
ACCURACY BASED ON [% o.r.]	No
ERROR DOCUMENTED IN THIS REPORT, BASED ON % F.S.	

Ultrasonic sensor installed to ensure full scale flow condition

**AS FOUND TEST RESULTS**

		47.2	54.0	59.4	78.4	99.1	% F.S. Range
		0.430	0.470	0.500	0.600	0.700	m
<b>REF. FLOW RATE</b>		<b>16.522</b>	<b>18.917</b>	<b>20.786</b>	<b>27.433</b>	<b>34.687</b>	MLD
MUT [Reading]		16.665	19.053	20.856	27.652	34.869	MLD
MUT [Difference]		0.143	0.136	0.070	0.219	0.182	MLD
MUT [% Error]		0.41	0.39	0.20	0.63	0.52	%
<b>mA OUTPUT</b>		<b>11.552</b>	<b>12.647</b>	<b>13.501</b>	<b>16.539</b>	<b>19.855</b>	mA
MUT [Reading]		min. 4.000 mA	11.609	12.702	13.547	16.612	19.928
MUT [Difference]		max. 20.000 mA	0.057	0.055	0.046	0.073	0.073
MUT [% Error]			0.28	0.28	0.23	0.36	0.37
<b>TOTALIZER - REF. FLOW RATE</b>							
TOTALIZER [MUT]							
TEST TIME							
CALC. TOTALIZER							
ERROR							

**COMMENTS**

Note: customer uses SCADA for totalizer - therefore not checked

**QUALITY MANAGEMENT STANDARDS INFO.**

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] LEVEL	Sim. BOARD	Yes
PROCESS METER	DMM	2
STOP WATCH	SW	Yes

**RESULTS**

TEST	AVG %FS	PASS FAIL
DISPLAY	0.43	PASS
mA OUTPUT	0.30	PASS
TOTALIZER	N/A	N/A

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.

Western Office Eastern Office  
2088 Jetstream Road 1602 Old Wooler Road  
London, Ontario Wooler, Ontario  
N5V 3P6 K0K 3M0

# PASS

AS FOUND CERTIFICATION

<b>CUSTOMER CONTACT</b>	Municipality of Chatham-Kent Stew Bechard Chief Operator - Wallaceburg 100 Irvin Street Chatham, ON N7M 5L8 c. 519-359-2697 t. 519-352-1971 e. stewbe@chatham-kent.ca Randy Nichol	<b>[MUT] MANUFACTURER</b>	HACH
		<b>MODEL</b>	DR3900
		<b>SERIAL NUMBER</b>	1662139
		<b>CLIENT TAG</b>	WTP
		<b>LOCATION</b>	Wallaceburg WTP
		<b>OTHER</b>	n/a
<b>VER. BY</b>		<b>TOLERANCE [mg/L]</b>	0.05
		<b>STANDARD RECOVERY [%]</b>	90
<b>Quality Management Standards Information - Standards, reference equipment, and instrumentation used to conduct this test outlining the lot#, and expiry date is found in our current</b>		<b>VERIFICATION DATE</b>	June 25, 2018
		<b>CAL. FREQUENCY</b>	Annual
		<b>CAL. DUE DATE</b>	June 2019

**CHLORINE [Cl<sub>2</sub>] SECONDARY STANDARDS**

STANDARD	BLANK [mg/L]			READING mg/L	PASS FAIL
STD 1	0.21	+/-	0.09	0.25	PASS
STD 2	0.90	+/-	0.10	0.91	PASS
STD 3	1.66	+/-	0.14	1.66	PASS

**CHLORINE [Cl<sub>2</sub>] PRIMARY STANDARDS**

STANDARD VALUE [mg/L] 27.3  
STANDARD ADDITIONS SIZE [mL] 0.200  
BLANK SAMPLE SIZE [mL] 10.0  
DPD LOT# A7291  
EXPIRY DATE Oct-22

SAMPLE TEST #	Cl <sub>2</sub> STANDARD mL	COMBINED SAMPLE mL	REFERENCE STANDARD mg/L	REFERENCE READING mg/L	MUT READING mg/L	DIFF. ERROR mg/L	PASS FAIL	STANDARD RECOVERY %
BLANK	0	10.000	0	0	0	0	PASS	N/A
STD 1	0.200	10.200	0.54	0.54	0.55	0.01	PASS	100.0
STD 2	0.400	10.400	1.05	1.02	1.04	0.02	PASS	97.1
STD 3	0.600	10.600	1.55	1.46	1.49	0.03	PASS	94.2
<b>AVERAGE RESULTS</b>						0.02	PASS	97.1

<b>COMMENTS</b>	<b>[QMS] INFORMATION</b>	<b>ITEM</b>	<b>ID #</b>
	[REFERENCE] HACH PCII	HACH PC II	1
	10.0 mL PIPETTE	HACH-PP-10	1
	0.2 mL PIPETTE	G-PP-2	1
	SECONDARY STANDARDS	AS-CLSS	1
	PRIMARY STANDARDS	AS-CLPS	1
	ABSORBANCE STANDARDS	AS-ABS	1

ABSORBANCE CHECKS		
WAVELENGTH	TESTED	PASS/FAIL
420 nm	Yes	PASS
520 nm	Yes	PASS
560 nm	Yes	PASS
610 nm	Yes	PASS

Primary and Secondary standards were used to confirm the overall accuracy of this instrument along with conducting an analytical comparative technique against a reference meter. All values are considered "AS FOUND" readings. If the "AS FOUND" readings were not within acceptable limits, an "AS LEFT" report will be issued if the instrument was able to be calibrated to indicate the overall accuracy of the meter. If the meter was not calibrated for any reason, a comment will be issued for this instrument.

Western Office  
 2088 Jetstream Road  
 London, Ontario  
 N5V 3P6

 Eastern Office  
 1602 Old Wooler Road  
 Wooler, Ontario  
 K0K 3M0

**CUSTOMER CONTACT**  
 Municipality of Chatham-Kent  
 Stew Bechard  
 Chief Operator - Wallaceburg  
 100 Irvin Street  
 Chatham, ON N7M 5L8  
 c. 519-359-2697  
 t. 519-352-1971  
 e. [stewbe@chatham-kent.ca](mailto:stewbe@chatham-kent.ca)  
 VER. BY *Randy Nichol*
**[MUT] MANUFACTURER**  
 MODEL  
 SERIAL NUMBER  
 CLIENT TAG  
 LOCATION  
 OTHER  
 HACH  
 HQ40D  
 081000025041  
 Wallaceburg STP  
 Wallaceburg STP  
 2038

TOLERANCE [pH] 0.05

 Quality Management Standards Information -  
 Standards, reference equipment, and  
 instrumentation used to conduct this test outlining  
 the lot#, and expiry date is found in our current

 VERIFICATION DATE June 25, 2018  
 CAL. FREQUENCY Annual  
 CAL. DUE DATE June 2019

**AS FOUND**

DO Concentration [mg/L]	8.37
DO Concentration [%]	93.4
Barometric Pressure [hpa]	1005
Temperature	20.3

**AS LEFT**

DO Concentration [mg/L]	8.93
DO Concentration [%]	99.8
Barometric Pressure [hpa]	1005
Temperature	20.4

 Slope 107.4  
 Offset 0.00

**COMMENTS**

Performed calibration as per manufacturer's recommended procedure.

**[QMS] INFORMATION**
**ITEM**
**ID #**

NIST Traceable Buffers were used to confirm the overall accuracy of this instrument. "AS FOUND" readings and "AS FOUND" readings are reported within this report. A temperature device was used to measure and record the buffer temperature to correct for pH values due to the effects related to buffer temperature.

Western Office  
2088 Jetstream Road  
London, Ontario  
N5V 3P6

Eastern Office  
1602 Old Wooler Road  
Wooler, Ontario  
K0K 3M0

[MUT] AS FOUND

**FAIL**  
**PASS**

[MUT] AS LEFT

<b>CUSTOMER CONTACT</b> Municipality of Chatham-Kent Stew Bechard Chief Operator - Wallaceburg 100 Irvin Street Chatham, ON N7M 5L8 c. 519-359-2697 t. 519-352-1971 e. stewbe@chatham-kent.ca Randy Nichol	<b>[MUT] MANUFACTURER</b> HACH <b>MODEL</b> Sension +ph <b>SERIAL NUMBER</b> 535071 <b>CLIENT TAG</b> n/a <b>LOCATION</b> Wallaceburg STP <b>OTHER</b>
<b>VER. BY</b> Quality Management Standards Information - Standards, reference equipment, and instrumentation used to conduct this test outlining the lot#, and expiry date is found in our current	<b>TOLERANCE [pH]</b> 0.05  <b>VERIFICATION DATE</b> June 25, 2018 <b>CAL. FREQUENCY</b> Annual <b>CAL. DUE DATE</b> June 2019

**pH VERIFICATION**  
**NIST TRACEABLE (BUFFERS)**

BEFORE CALIBRATION

REFERENCE BUFFER			[MUT] READINGS			
pH BUFFER	TEMP. ° C	pH CORRECTED	pH	TEMP. ° C	pH - ERROR DIFF.	PASS FAIL
4.01	18.6	4.00	3.92	17.9	-0.08	FAIL
7.01	18.6	7.03	7.00	17.9	-0.03	PASS
10.01	18.6	10.07	10.04	17.7	-0.03	PASS
<b>RESULT</b>						<b>FAIL</b>

AFTER CALIBRATION

REFERENCE BUFFER			[MUT] READINGS			
pH BUFFER	TEMP. ° C	pH CORRECTED	pH	TEMP. ° C	pH - ERROR DIFF.	PASS FAIL
4.01	18.6	4.00	4.00	18.7	0.00	PASS
7.01	18.6	7.03	7.04	18.5	0.01	PASS
10.01	18.6	10.07	10.10	18.4	0.03	PASS
<b>RESULT</b>						<b>PASS</b>

mv offset/Assymetry      n/a  
Slope      n/a

**COMMENTS**

<u>[QMS] INFORMATION</u>	<u>ITEM</u>	<u>ID #</u>
[REFERENCE]		
4.01 BUFFER	pHBUFF4	1
7.01 BUFFER	pHBUFF7	1
10.01 BUFFER	pHBUFF10	1
TEMPERATURE REF.	DDTEMP	1

NIST Traceable Buffers were used to confirm the overall accuracy of this instrument. "AS FOUND" readings and "AS FOUND" readings are reported within this report. A temperature device was used to measure and record the buffer temperature to correct for pH values due to the effects related to buffer temperature.

**APPENDIX C**

**Limited Operational Flexibility**

**APPENDIX D**

**Yearly Bypass Summary Reports for the Reporting Period**

**Bypass Summary Report – January 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA



## Bypass Summary Report – February 2018

### Wallaceburg Water Pollution Control Plant - Works # 110000784

1. Date, time and duration of the Bypass event.  
February 20 at approximately 04:45 to Feb 21 at approximately 16:50  
36 hours, 5 minutes
2. Location of the Bypass event and the treatment process(es) bypassed.  
Wallaceburg WPCP, Secondary treatment
3. Measured or estimated volume of the Bypass.  
3,696 m3 (metered)
4. Reason for the Bypass event.  
Heavy rainfall and warmer temperatures causing significant snow melting.
5. Level of treatment the Bypass received and the disinfection status.  
By-pass received primary treatment and disinfection, disinfection not interrupted during by-pass
6. Results of all analytical samples taken.  
Effluent Discharge was sampled on February 20, 2018 near the start of the bypass event and on February 21, 2018 near the end of the bypass event. Analytical results included.
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.

Effluent Parameter	Effluent Limit (mg/L)	February Monthly Average (mg/L)
CBOD5	25	2.7
Total Suspended Solids	25	7.2
Total Phosphorus	1.0	0.31
Total Ammonia Nitrogen	1.5 (Apr 16 – Dec 15) 3.0 (Dec 15 – Apr 15)	0.40
E. Coli	200 organisms / 100mL (Monthly Geometric Mean Density)	56.7

The impact of the event on the plant operation was that primary treatment effluent was diverted into the final effluent in an attempt to not exceed the rated capacity as well as to prevent the dilution of the biological process with rain water and snow melt. As indicated in the

above chart the impact on the Final Effluent and receiving water was minimal and the effluent concentrations were within compliance.

8. Planned mitigation strategies (as appropriate).

During high flow events raw sewage is diverted to the old primary treatment tanks on-site to fill up before a bypass occurs, in an attempt to delay or prevent a bypass if possible.

**Bypass Summary Report – March 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

**Bypass Summary Report – April 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

**Bypass Summary Report – May 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

**Bypass Summary Report – June 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

## **Bypass Summary Report – July 2018**

### **Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
July 24 at approximately 00:57 to 01:13  
16 minutes
2. Location of the Bypass event and the treatment process(es) bypassed.  
Wallaceburg WPCP, Secondary treatment
3. Measured or estimated volume of the Bypass.  
2 m<sup>3</sup> (metered)
4. Reason for the Bypass event.  
Very heavy rainfall.
5. Level of treatment the Bypass received and the disinfection status.  
By-pass received primary treatment and disinfection, disinfection not interrupted during by-pass
6. Results of all analytical samples taken.  
Effluent Discharge was sampled on July 24, 2018 near the start of the bypass event and on July 24, 2018 near the end of the bypass event. Analytical results included.

7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.

<b>Effluent Parameter</b>	<b>Effluent Limit (mg/L)</b>	<b>Primary Bypass &amp; Effluent Blended Sample Average (mg/L)</b>	<b>July Monthly Average, including Primary Bypass Blended Sampling (mg/L)</b>
CBOD5	25	2.0	2.1
Total Suspended Solids	25	14.5	6.7
Total Phosphorus	1.0	0.80	0.50
Total Ammonia Nitrogen	1.5 (Apr 16 – Dec 15) 3.0 (Dec 15 – Apr 15)	0.11	0.14
E. Coli	200 organisms / 100mL (Monthly Geometric Mean Density)		10
pH	Single Sample Result Between 6.0 – 9.5	7.41 – 7.44	7.41 – 7.88

The impact of the event on the plant operation was that primary treatment effluent was diverted into the final effluent in an attempt to not exceed the rated capacity as well as to prevent the dilution of the biological process with rain water. As indicated in the above chart the impact on the Final Effluent and receiving water was minimal and the effluent concentrations were within compliance.

8. Planned mitigation strategies (as appropriate).

During high flow events raw sewage is diverted to the old primary treatment tanks on-site to fill up before a bypass occurs, in an attempt to delay or prevent a bypass if possible.



## **Bypass Summary Report – August 2018**

### **Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
August 21 at approximately 03:36 to 05:03  
1 hour 27 minutes
2. Location of the Bypass event and the treatment process(es) bypassed.  
Wallaceburg WPCP, Secondary treatment
3. Measured or estimated volume of the Bypass.  
55 m3 (metered)
4. Reason for the Bypass event.  
Very heavy rainfall.
5. Level of treatment the Bypass received and the disinfection status.  
By-pass received primary treatment and disinfection, disinfection not interrupted during by-pass
6. Results of all analytical samples taken.  
Effluent Discharge was sampled on August 21, 2018 near the start of the bypass event and on August 21, 2018 near the end of the bypass event. Analytical results included.

7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.

<b>Effluent Parameter</b>	<b>Effluent Limit (mg/L)</b>	<b>Primary Bypass &amp; Effluent Blended Sample Average (mg/L)</b>	<b>August Monthly Average, including Primary Bypass Blended Sampling (mg/L)</b>
CBOD5	25	5.0	3.0
Total Suspended Solids	25	10.5	6.7
Total Phosphorus	1.0	0.40	0.31
Total Ammonia Nitrogen	1.5 (Apr 16 – Dec 15) 3.0 (Dec 15 – Apr 15)	1.3	0.56
E. Coli	200 organisms / 100mL (Monthly Geometric Mean Density)		10
pH	Single Sample Result Between 6.0 – 9.5	7.76 – 7.77	7.69 – 7.85

The impact of the event on the plant operation was that primary treatment effluent was diverted into the final effluent in an attempt to not exceed the rated capacity as well as to prevent the dilution of the biological process with rain water. As indicated in the above chart the impact on the Final Effluent and receiving water was minimal and the effluent concentrations were within compliance.

8. Planned mitigation strategies (as appropriate).

During high flow events raw sewage is diverted to the old primary treatment tanks on-site to fill up before a bypass occurs, in an attempt to delay or prevent a bypass if possible.

**Bypass Summary Report – September 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

## **Bypass Summary Report – October**

**2018**

### **Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

**Bypass Summary Report – November**

**2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

---

**Bypass Summary Report – December 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Bypass event.  
None
2. Location of the Bypass event and the treatment process(es) bypassed.  
NA
3. Measured or estimated volume of the Bypass.  
NA
4. Reason for the Bypass event.  
NA
5. Level of treatment the Bypass received and the disinfection status.  
NA
6. Results of all analytical samples taken.  
NA
7. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
8. Planned mitigation strategies (as appropriate).  
NA

**APPENDIX E**

**Yearly Overflow Summary Reports for the Reporting Period**

---

**Plant Overflow Summary Report – January 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA



---

**Plant Overflow Summary Report – February 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

---

**Plant Overflow Summary Report – March 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

---

**Plant Overflow Summary Report – April 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

---

**Plant Overflow Summary Report – May 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

## **Plant Overflow Summary Report – June 2018**

### **Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

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**Plant Overflow Summary Report – July 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

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**Plant Overflow Summary Report – August 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

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**Plant Overflow Summary Report – September 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA



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**Plant Overflow Summary Report – October 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

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**Plant Overflow Summary Report – November 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA

**Plant Overflow Summary Report – December 2018**

**Wallaceburg Water Pollution Control Plant - Works # 110000784**

1. Date, time and duration of the Overflow event.  
None
2. Location of the Overflow event and the receiver and disinfection status of the Overflow.  
NA
3. Measured or estimated volume of the Overflow.  
NA
4. Reason for the Overflow event.  
NA
5. Level of treatment the Overflow received.  
NA
6. Mitigation measures taken.  
NA
7. Results of all analytical samples taken.  
NA
8. An assessment of the impact of the Event(s) on the Final Effluent, plant operation and the receiver.  
NA
7. Planned mitigation strategies (as appropriate).  
NA