

# King's Bay Wastewater System 2025 Annual Wastewater Performance Report

Wastewater System Works Number: 110003665

Wastewater System Operating Authorities: City of Kawartha Lakes and Ontario  
Clean Water Agency

Reporting Period: January 1<sup>st</sup> – December 31<sup>st</sup>, 2025



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# 2025 Annual Wastewater System Performance Report

## Executive Summary

The King's Bay Environmental Centre Sewage Works, located in Seagrave, Ontario, is a municipal wastewater treatment facility owned by the City of Kawartha Lakes. The facility has a rated capacity of 170 m<sup>3</sup>/day and consists of two separate sewage treatment trains and a subsurface disposal system. The treatment system is operated by the Ontario Clean Water Agency (OCWA) and the collection system operated by City of Kawartha Lakes staff.

The treatment system operates under Environmental Compliance Approval (ECA) #7037-A77JLP, issued February 16, 2016. The collection system operates under Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) #141-W601 issued May 2, 2025. In accordance with Ontario Regulation 129/04, the facility is classified as a Class II Wastewater Treatment and a Class II Wastewater Collection Subsystem.

The facility includes two independent treatment trains, each housed within an above-ground structure. Each train consists of a primary settling tank (which also serves as sludge storage), a Rotating Biological Contactor (RBC), and a secondary clarifier. Influent wastewater is first received at an influent sanitary sewage pumping station equipped with submersible pumps prior to entering the treatment process.

Phosphorus removal is achieved through chemical dosing using aluminum sulphate (alum), with injection points located at the first and third stages of the RBC process. Treated effluent is discharged to a subsurface disposal system, consisting of four shallow, in-ground pressure absorption trench beds.

Biosolids generated at the facility are periodically removed and transported to the Lindsay Water Pollution Control Plant (WPCP) for further treatment and disposal.

The King's Bay wastewater collection system consists of a networks of gravity sewers conveying wastewater to the treatment facility.

The City of Kawartha Lakes and Ontario Clean Water Agency prepares an annual report summarizing the operation and performance of the King's Bay Environmental Centre Sewage Works. This report fulfills the reporting requirements of Environmental Compliance Approval (ECA) #7037-A77JLP and Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) #141-W601.

Unless otherwise noted, the facility operated in compliance with all regulatory requirements and approval conditions during the reporting period.

This Annual Performance Report is available to the public on the [City of Kawartha Lakes website](#) and at the Public Works Administration Office located at 322 Kent Street West in Lindsay, Ontario, by appointment. Notification of report availability is provided on the City's website and copies are available free of charge.

## Reporting Requirements – Wastewater Treatment Plant

In accordance with the amended Environmental Compliance Approval (ECA) #7037-A77JLP, Section 10(6) – REPORTING, the owner shall prepare a performance report on a calendar basis and submit to the Ministry of Environment, Conservation and Parks by March 31 of the calendar year following the period being reported upon.

### Section 10(6) – REPORTING

The performance report is required to contain the following:

- a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, including an overview of the success and adequacy of the Works;
- b) a description of any operating problems encountered and corrective actions taken;
- c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming a part of the Works;
- d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- e) a summary of the calibration and maintenance procedures conducted on all monitoring equipment; and
- f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6.
- g) a tabulation of the volume of sludge generated in the reporting period and an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
- h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- i) a summary of all by-pass, spill or abnormal discharge events;
- j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
- k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and
- l) any other information the Water Supervisor requires from time to time.

During the reporting period of 2025, the Ontario Clean Water Agency (OCWA) operated the King's Bay Environmental Centre Sewage Works on behalf of the Corporation of the City of Kawartha Lakes. OCWA's goals have remained consistent during this period and remain consistent with the following priorities:

- provide quality assurance, safety and environmental compliance of facility operations;
- assist our clients in achieving compliance;
- provide advise on up-to-date technology in Operations and Maintenance service delivery.

This report will show that the Ontario Clean Water Agency has made every attempt to achieve its goals through its operational performance. This performance was enhanced through the use of an electronic process data collection database, an electronic maintenance and work order database, an electronic operational excellence database, a training program focused on providing the right skills to staff – also captured and tracked by the use of an electronic database and a multi-skilled, flexible workforce.

## Summary of Monitoring Data to Limits and Objectives

(a) Attached as **Appendix I** is a copy of the 2025 Performance Assessment Report (PAR) for the King’s Bay Environmental Centre Sewage Works showing effluent criteria. The PAR contains: a tabulation of all monthly average raw sewage and final effluent sample results obtained during the reporting period, a tabulation of average daily flows, and monthly volumes for the reporting period, and a tabulation of calculated total loading of BOD<sub>5</sub>, suspended solids, total phosphorus, and ammonia + ammonium as nitrogen concentrations in the final effluent.

Attached as **Appendix II: Groundwater Monitoring**, are the results of the groundwater monitoring as required by the Environmental Compliance Approval – Table 3.

The following table summarizes the average concentration and annual average loading of the effluent parameters CBOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus, and pH in comparison to the effluent limits and objectives specified by the Environmental Compliance Approval. Attached in **Appendix III**, a summary of the final effluent pH and temperature recorded at the facility. The recording frequency required by the Environmental Compliance Approval is monthly.

Table 1 outlines the effluent criteria limits as set out in Section 7(1) of Environmental Compliance Approval No. 7037-A77JLP as follows:

**Table 1. Final Effluent Compliance Limits 2025**

Effluent Parameter (Column 1)	Average Effluent Concentration (mg/L) (Column 2)	Actual Annual Average Effluent Concentration (mg/L)	Compliance (Y/N)	Average Total Effluent Loading Limit (kg/d) (Column 3)	Actual Annual Average Effluent Loading (kg/d)	Compliance (Y/N)
CBOD <sub>5</sub>	15.0	6.66	Y	N/A	N/A	N/A

Effluent Parameter (Column 1)	Average Effluent Concentration (mg/L) (Column 2)	Actual Annual Average Effluent Concentration (mg/L)	Compliant (Y/N)	Average Total Effluent Loading Limit (kg/d) (Column 3)	Actual Annual Average Effluent Loading (kg/d)	Compliant (Y/N)
Total Suspended Solids	15.0	9.54	Y	N/A	N/A	N/A
Total Phosphorus	1.0	0.25	Y	0.17	0.01	Y
pH	6.0 to 9.0, inclusive, at all times	7.65	Y	N/A	N/A	N/A

**Note:** Condition 7(2) states that for the purposes of determining compliance with and enforcing subsection (1);

- a) The Annual Average Concentration of CBOD<sub>5</sub> and Total Suspended Solids named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).
- b) The Annual Average Loading of a parameter named in Column 1 of subsection (1).
- c) The Annual Average Loading of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum waste loading set out in Column 3 of subsection (1).

The maximum raw flow into the facility was 104.20 m<sup>3</sup>/day, which occurred in April 2025. This is well below the allowable peak flow rate of approximately 666.0 m<sup>3</sup>/day and is also well below the rated capacity of 170 m<sup>3</sup>/day listed in the Environmental Compliance Approval. The average daily flow for 2025 was 43.25 m<sup>3</sup>/day.

ECA Condition 6(2)(b) states: "The Owner shall use best efforts to operate the works within the Rated Capacity of the Works". Rated Capacity is defined as Average Daily Flow for which the Works are approved to handle. Table 2 provides a summary of the average daily influent flows in comparison with the rated capacity of 170 m<sup>3</sup>/day.

**Table 2. Effluent Objectives Influent Flow Data for 2025**

	Avg. Daily Flow (m <sup>3</sup> )	ECA Rated Capacity (m <sup>3</sup> )	Compliant Y/N
January	39.80	170.0	Y
February	37.61	170.0	Y
March	43.81	170.0	Y
April	58.85	170.0	Y
May	48.31	170.0	Y

	<b>Avg. Daily Flow (m<sup>3</sup>)</b>	<b>ECA Rated Capacity (m<sup>3</sup>)</b>	<b>Compliant Y/N</b>
June	43.88	170.0	Y
July	41.83	170.0	Y
August	39.12	170.0	Y
September	38.98	170.0	Y
October	40.73	170.0	Y
November	41.51	170.0	Y
December	44.63	170.0	Y

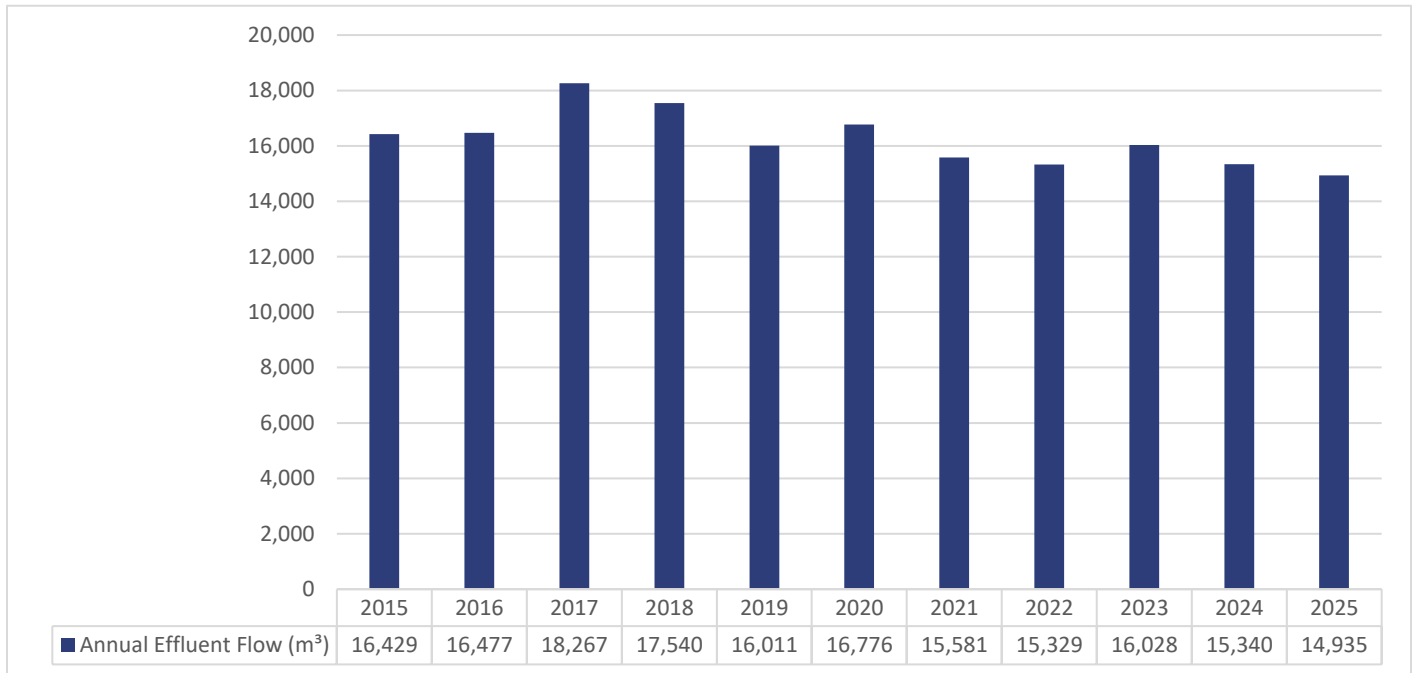
Table 3 provides a summary of the average daily effluent flows in comparison with the rated capacity of 170.0 m<sup>3</sup>/day.

**Table 3. Effluent Objectives Effluent Flow Data for 2025**

	<b>Avg. Daily Flow (m<sup>3</sup>)</b>	<b>ECA Rated Capacity (m<sup>3</sup>)</b>	<b>Compliant Y/N</b>
January	35.92	170.0	Y
February	34.70	170.0	Y
March	41.73	170.0	Y
April	54.24	170.0	Y
May	46.17	170.0	Y
June	42.40	170.0	Y
July	42.14	170.0	Y
August	37.79	170.0	Y
September	38.00	170.0	Y
October	39.46	170.0	Y
November	38.60	170.0	Y
December	43.22	170.0	Y

Graph 1 provides a summary of the annual total effluent flows from 2015 to 2025.

### Graph 1. Annual Total Effluent Flow Comparison



The final effluent quality for Total Phosphorus remained well below the limits established in the Environmental Compliance Approval (ECA). The annual average concentration was 0.25 mg/L, significantly below the limit of 1.0 mg/L. The annual average loading was 0.01 kg/day, which is well below the allowable limit of 0.17 kg/day, based on the design average day flow of 170.0 m<sup>3</sup>/day.

Effluent pH values during the reporting period ranged from 6.62 to 8.40, remaining within the ECA-specified range of the 6.0 to 9.0.

The Total Suspended Solids (TSS) effluent objective and limit were achieved in 2025. The annual average concentration was 9.54 mg/L, meeting the objective of 10.0 mg/L and remaining below the compliance limit of 15.0 mg/L.

Similarly, the Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) effluent objective and limit were met throughout the reporting period. The annual average concentration of 6.66 mg/L, which is below both the objective of 10.0 mg/L and the limit of 15.0 mg/L.

During the reporting period, continued efforts were made to maintain and enhance system compliance. Operational adjustments included optimization of alum dosing for phosphorus removal, refinement of return sludge system timer settings to improve sludge return rates, and periodic removal accumulated sludge by a licensed waste hauler to reduce solids build-up within the system.

Facility operators maintained diligent process monitoring and implemented operational adjustments as required to ensure consistent treatment performance and regulatory compliance.

## Groundwater Monitoring Wells

Groundwater levels were measured once during each quarter (Q1, Q2, Q3, and Q4) of 2025. Monitoring results for the eight groundwater monitoring wells are provided in **Appendix IV: Groundwater Monitor Wells – Levels**.

Groundwater quality sampling was conducted in accordance with the Environmental Compliance Approval (ECA) requirements. Analytical results from the eight monitoring wells (**Appendix II**) generally demonstrated consistent water quality results, with occasional anomalies observed in parameters including pH, conductivity, CBOD<sub>5</sub>, total phosphorus, total suspended solids, nitrite, nitrate, and nitrate + nitrite.

The Provincial Water Quality Objective (PWQO) for pH is 6.5 to 8.5. All groundwater samples collected during the reporting period from the eight monitoring wells fell within this acceptable range. The Provincial Water Quality Objectives have not been established for the remaining parameters.

As per the Amended ECA issued February 16, 2016, groundwater monitoring requirements include quarterly measurement of water levels and semi-annual sampling for the following parameters: pH, Conductivity, Total Phosphorus, Nitrate Nitrogen, Total Suspended Solids and CBOD<sub>5</sub>. The ECA also specifies that Total Phosphorus samples are to be collected as a field-filtered grab samples.

A trigger value is a concentration of 0.3 mg/L in either GW1 or GW8.

A summary of groundwater monitoring performance is provided in Table 4.

**Table 4. Groundwater Well Monitoring Performance for Total Phosphorus**

Well #	March 2025	September 2025
<b>Up Gradient</b>		
Well 5	<0.003	<0.003
Well 4	<0.003	<0.003
<b>Down Gradient – East Trench</b>		
Well 3 (5 m)	0.042	0.022
Well 2 (10 m)	<0.003	<0.003
Well 1 (15 m)	<0.003	<0.003
<b>Down Gradient – West Trench</b>		
Well 6 (5 m)	<0.003	<0.003

Well #	March 2025	September 2025
Well 7 (10 m)	<0.003	<0.003
Well 8 (15 m)	<0.003	<0.003

**Note:** all results in mg/L unless otherwise noted.

## Operational Challenges and Corrective Actions

**(b)** Historically the facility has experienced a number of challenges primarily with breakdowns of the rotating biological contactors (RBC), which has affected the effluent quality. During the reporting period, both RBC units continued to function as designed. Adjustments to the system include: alum dosage, the timers on the return sludge system to optimize the return rate, and removal of sludge from the system by a licensed waste hauler to lower the solids build-up. The operators are continuing to closely monitor the process and make necessary adjustments as required.

## Maintenance Summary

**(c)** Ontario Clean Water Agency (OCWA) maintenance activities are based on a computerized Work Management System (WMS) using the Maximo application. In its developmental stages, each piece of equipment at the operating facility was tagged with unique bar code numbers, and this information was entered into the electronic WMS database. In addition, data regarding the description of the equipment, model number, serial number, the equipment type, location at the facility as related to process, serviceable status, manufacturer’s suggested maintenance activities, all risk factor information and average month usage was also recorded.

Once the equipment inventory was established, preventative maintenance procedures and schedules were developed for each piece of equipment. Each work order generated by the Preventative Maintenance schedule includes materials and parts required, any special tool requirements, work protection, job safety planning, running checks, a preventative maintenance job procedure, and upon completion of the task, the work order is closed out.

Corrective or breakdown maintenance is required when equipment is determined to be non-serviceable, or the potential for non-serviceability exists. All preventative and corrective/breakdown maintenance in OCWA and more specifically the King’s Bay Environmental Centre Sewage Works is executed and accounted for under a Maximo work order.

Attached is **Appendix V: Maintenance Summary**, a Work Order Summary report showing all preventative and corrective maintenance activities performed at the King’s Bay Environmental Centre during 2025.

## Effluent Quality Assurance or Control

(d) Effluent control measures include in-house sampling and testing for operational parameters such as suspended solids, pH, phosphorus, and temperature. In-house testing provides real time results, which are then evaluated to determine if process changes are necessary to enhance operational performance. All in-house sampling and analysis are performed by certified operations staff utilizing approved methods and protocols for sampling, analysis and recording as specified in the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works", the Ministry's publication, "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" and the publication, "Standard Methods for the Examination of Water and Wastewater".

All effluent samples collected during the reporting period to meet Environmental Compliance Approval (ECA) sampling requirements were submitted to SGS Canada Inc. – Lakefield laboratory for analysis, with the exception of pH and temperature. SGS Canada Inc. – Lakefield has been deemed accredited by the Canadian Association for Laboratory Accreditation (CALA), meeting strict provincial guidelines including an extensive quality assurance/quality control program. By choosing this laboratory, the Ontario Clean Water Agency is ensuring appropriate control measures are undertaken during sample analysis. The pH and temperature parameters were analyzed in the field at the time of sample collection by certified operators, to ensure accuracy and precision of the results obtained.

## Calibrations

(e) Flow meter calibrations were conducted on June 17, 2025. The reports are attached as **Appendix VI: Calibration Reports.**

## Best Efforts to Achieve Design Objectives of Condition 6

(f) OCWA uses a number of efforts to achieve Effluent Objectives. Effluent quality assurance and control measures include in-house sampling and testing for operational parameters such as pH, temperature, TSS and phosphorus. In-house testing provides real time results which are then used to enhance process and operational performance. OCWA also collects raw sewage and effluent samples as per the Environmental Compliance Approval (ECA) and review these results on a regular basis to ensure compliance with the ECA objectives and limits.

Table 5 provides a summary of the ECA effluent objectives, specified in Condition 6(1), in comparison to the actual effluent results obtained during the reporting period.

**Table 5. Effluent Objectives and Results 2025**

Effluent Parameter	ECA – Effluent Objective Concentration	Actual Annual Average Concentration in Effluent	Compliant Y/N
CBOD <sub>5</sub>	10.0 mg/L	6.66	Y
Total Suspended Solids	10.0 mg/L	9.54	Y
Total Phosphorus	0.8 mg/L	0.25	Y
pH	6.5 – 9.0	7.65	Y

The effluent objectives for CBOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus and pH in the effluent are recommended not to exceed: 10.0 mg/L, 10.0 mg/L, 0.8 mg/L and range of pH between 6.5 – 9.0, respectively. The annual average effluent objective concentrations for CBOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus and pH were met during the 2025 reporting period.

OCWA has developed comprehensive manuals detailing operations, maintenance, instrumentation and emergency procedures. To ensure facilities are operated in compliance with applicable legal requirements, facility staff have access to a network of operational compliance and support experts at the Hub, Regional and Corporate level.

**Appendix VII** contains a summary of the coagulant used in 2025.

## Sludge

**(g) Appendix VIII: Biosolids Summary** provides a detailed account of the volume of sludge generated during the reporting period. A total of 185.83 m<sup>3</sup> of biosolids was produced.

Based on current operational conditions, the volume of biosolids generated in the next reporting period is not expected to differ significantly from that of the current year.

All sludge generated at the facility is hauled to the Lindsay Water Pollution Control Plant for further treatment and disposal. No changes to the existing sludge handling and management practices are anticipated.

## Complaints

**(h)** There were zero (0) community complaints received regarding the King’s Bay Environmental Centre Sewage Works during the reporting period.

## By-pass, Spill or Abnormal Discharge Events

(i) A summary of By-pass, Spill or Abnormal Discharge Events

### **Bypasses**

There were not any bypasses at the King's Bay Environmental Centre Sewage Works during 2025.

### **Spills**

There were not any spills at the King's Bay Environmental Centre Sewage Works during 2025.

### **Overflows**

There were not any overflows at the King's Bay Environmental Centre Sewage Works in 2025.

### **Abnormal Discharge Events**

There were not any abnormal discharge events at the King's Bay Environmental Centre Sewage Works in 2025.

Refer to **Appendix IX: Bypasses, Overflows, Spills or Abnormal Events** for copies of the quarterly Bypass and Overflow reports, and Notice of Exceedance submitted to the Ministry of Environment, Conservation and Parks.

## Notice of Modifications to Sewage Works

(j) There were not any Notices of Modifications to Sewage Works initiated, worked on or completed in 2025.

## Schedule B, Section 3 Modifications

(k) A summary of all modifications completed as a result of Schedule B, Section 3 are included in **Appendix V: Maintenance Summary**.

## Additional Request by Water Supervisor

(l) The Water Supervisor has not requested any additional information be included in this report.

## Reporting Requirements – Wastewater Collection System

In accordance with the Consolidated Linear Infrastructure – Environmental Compliance Approval #141-W601 the owner shall prepare a performance report on a calendar basis and submit to the

Ministry of Environment, Conservation and Parks by March 31 of the calendar year following the period being reported upon.

**4.6 (a) a summary of all required monitoring data along with an interpretation of the data and any conclusions drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.**

The King’s Bay Environmental Centre Sewage Collection System consists of works for the collection and transmission of sewage, consisting of approximately 1.5 km of sanitary sewer piping that discharge into the King’s Bay Environmental Centre.

There are no monitoring data requirements for the King’s Bay Environmental Centre Sewage Collection System.

**4.6 (b) a summary of any operating problems encountered and corrective actions taken.**

There were no operating problems encountered in 2025 for the King’s Bay Environmental Centre Sewage Collection System.

**4.6 (c) a summary of all calibration, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanisms, or thing forming part of the Municipal Sewage Collection System.**

A regularly scheduled calibration and maintenance program has been kept up to date as scheduled on a daily, weekly, semi-annual and annual basis. All equipment calibration and maintenance scheduling and standard procedures are provided by Maximo Computerized Maintenance System.

Attached is **Appendix V: Maintenance Summary**, a Work Order Summary report, showing all preventative and corrective maintenance activities performed at the King’s Bay Environmental Centre Sewage Works, including the collection system, during 2025.

All other collection system repairs are summarized in the table below:

**Table 6. Summary of Major Structure & Equipment Maintenance and Repair**

Major Structure	Work Performed
Full Sanitary Sewer Flushing	Entire collection system flushing

**4.6 (d) a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.**

Complaints related to the King’s Bay Environmental Centre Sewage Collection System and steps taken to address the complaints for 2025 are included in Section (h).

**4.6 (e) a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat.**

There were no Alterations made to the King's Bay Environmental Centre Sewage Collection System in 2025.

**4.6 (f) a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including:**

**i) Dates;**

**ii) Volumes and durations**

**iii) If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E. coli;**

**iv) Disinfection, if any; and**

**v) Any adverse impact(s) and any corrective actions, if applicable.**

The King's Bay Environmental Centre Sewage Collection system did not experience any collection system Overflows or Spills in 2025.

**4.6 (g) a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:**

**i) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.**

Sanitary sewer flushing is conducted on an annual basis (3 years of dead ends/trouble areas and 4<sup>th</sup> year is a full system flush). During this program, any manholes with infiltration issues are identified and are included in operational maintenance contracts for grouting, frame and cover replacements, etc.

In addition, where manholes are located in lower lying areas and are at risk of being submerged and contributing to inflow, rain bladders are installed to prevent excess water from entering the system, further reducing the risk of overflow.

The King's Bay wastewater collection system infrastructure is relatively new and does not experience excessive infiltration and inflow which could contribute to potential overflows. No deficiencies were identified in 2025.

Work summarized in Table 6 above, were projects undertaken to aid in overall overflow reduction.

Full System Flushing - \$2,400

For 2026, \$1,750 has been budgeted to perform sanitary sewer flushing in dead-end/troubled areas.

**ii) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timeline.**

The King's Bay Environmental Centre Sewage Collection system does not contain combined sewers and therefore is not required to complete a Pollution Prevention and Control Plan (PPCP).

**iii) An assessment of the effectiveness of each action taken.**

None to report at this time.

**iv) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.**

N/A

**v) Public reporting approach including proactive efforts**

SOP WWC02 Wastewater Bypass/Overflow Notification Procedure has been developed and has been in practice since 2021, which clearly outlines all reporting protocols to both regulatory agencies and the public in various situations. This procedure was developed in consultation with Ontario Clean Water Agency, Ministry of Environment, Conservation and Parks and Ministry of Health.



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix I:**  
**Performance Assessment Report**







**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix II:**  
**Groundwater Monitoring**

Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



Monitoring Well 1	2025					
	Mar 2025	Sep 2025	Total	Avg	Max	Min
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L						
Count	1.00	1.00	2.00			
Lab Count	1.00	1.00	2.00			
Lab Month.Max	< 4.00	< 4.00		<	4.00	
Lab Month.Mean	< 4.00	< 4.00		< 4.00		
Lab Month.Min	< 4.00	< 4.00				< 4.00
Conductivity - µS/cm						
Lab Count	1.00	1.00	2.00			
Lab Month.Max	810.00	885.00			885.00	
Lab Month.Mean	810.00	885.00		847.50		
Lab Month.Min	810.00	885.00				810.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L						
Lab Count	1.00	1.00	2.00			
Lab Month.Max	< 0.03	< 0.03			< 0.03	
Lab Month.Mean	< 0.03	< 0.03		< 0.03		
Lab Month.Min	< 0.03	< 0.03				< 0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L						
Lab Count	1.00	1.00	2.00			
Lab Month.Max	3.35	3.60			3.60	
Lab Month.Mean	3.35	3.60		3.48		
Lab Month.Min	3.35	3.60				3.35
Nitrite as N: NO2-N - mg/L						
Lab Count	1.00	1.00	2.00			
Lab Month.Max	< 0.03	< 0.03			< 0.03	
Lab Month.Mean	< 0.03	< 0.03		< 0.03		



Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



Lab Month..Mean	<	4.00	<	4.00	<	4.00	<	4.00	<	4.00	<	4.00
Lab Month..Min	<	4.00	<	4.00	<	4.00	<	4.00	<	4.00	<	4.00
Conductivity - µS/cm												
Lab Count		1.00		1.00		2.00		2.00		1780.00		1780.00
Lab Month..Max		1780.00		1740.00		1740.00		1760.00		1740.00		1740.00
Lab Month..Mean		1780.00		1740.00		1740.00		1760.00		1740.00		1740.00
Lab Month..Min		1780.00		1740.00		1740.00		1760.00		1740.00		1740.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
Lab Count		1.00		1.00		2.00		2.00		0.03		0.03
Lab Month..Max	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Lab Month..Mean	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Lab Month..Min	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
Lab Count		1.00		1.00		2.00		2.00		13.30		13.30
Lab Month..Max		13.30		11.40		11.40		12.35		13.30		13.30
Lab Month..Mean		13.30		11.40		11.40		12.35		13.30		13.30
Lab Month..Min		13.30		11.40		11.40		12.35		13.30		13.30
Nitrite as N: NO2-N - mg/L												
Lab Count		1.00		1.00		2.00		2.00		0.03		0.03
Lab Month..Max	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Lab Month..Mean	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Lab Month..Min	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03	<	0.03
Nitrate as N: NO3-N - mg/L												
Lab Count		1.00		1.00		2.00		2.00		13.30		13.30
Lab Month..Max		13.30		11.40		11.40		12.35		13.30		13.30
Lab Month..Mean		13.30		11.40		11.40		12.35		13.30		13.30
Lab Month..Min		13.30		11.40		11.40		12.35		13.30		13.30



Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



Lab Month..Min	2220.00	2160.00	2160.00	2160.00	2160.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L					
Lab Count	1.00	1.00	2.00		
Lab Month..Max	< 0.03	< 0.03	< 0.03	<	0.03
Lab Month..Mean	< 0.03	< 0.03	< 0.03	< 0.03	
Lab Month..Min	< 0.03	< 0.03			< 0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L					
Lab Count	1.00	1.00	2.00		
Lab Month..Max	18.80	17.00			18.80
Lab Month..Mean	18.80	17.00	17.90		
Lab Month..Min	18.80	17.00			17.00
Nitrite as N: NO2-N - mg/L					
Lab Count	1.00	1.00	2.00		
Lab Month..Max	< 0.03	< 0.03	<	<	0.03
Lab Month..Mean	< 0.03	< 0.03	< 0.03	<	
Lab Month..Min	< 0.03	< 0.03			< 0.03
Nitrate as N: NO3-N - mg/L					
Lab Count	1.00	1.00	2.00		
Lab Month..Max	18.80	17.00			18.80
Lab Month..Mean	18.80	17.00	17.90		
Lab Month..Min	18.80	17.00			17.00
pH - ---					
Lab Count	1.00	1.00	2.00		
Lab Month..Max	7.83	8.05			8.05
Lab Month..Mean	7.83	8.05	7.94		
Lab Month..Min	7.83	8.05			7.83
Total Phosphorus: TP - mg/L					





Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



		2025					
		Mar 2025	Sep 2025	Total	Avg	Max	Min
Lab Count		1.00	1.00	2.00			
Lab Month.Max		163.00	47.00			163.00	
Lab Month.Mean		163.00	47.00		105.00		
Lab Month.Min		163.00	47.00				47.00
Monitoring Well 5							
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L							
Count		1.00	1.00	2.00			
Lab Count		1.00	1.00	2.00			
Lab Month.Max		< 4.00	< 4.00		<	4.00	
Lab Month.Mean		< 4.00	< 4.00		< 4.00		
Lab Month.Min		< 4.00	< 4.00			<	4.00
Conductivity - µS/cm							
Lab Count		1.00	1.00	2.00			
Lab Month.Max		1520.00	755.00			1520.00	
Lab Month.Mean		1520.00	755.00		1137.50		
Lab Month.Min		1520.00	755.00				755.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L							
Lab Count		1.00	1.00	2.00			
Lab Month.Max		< 0.03	< 0.03		<	0.03	
Lab Month.Mean		< 0.03	< 0.03		< 0.03		
Lab Month.Min		< 0.03	< 0.03			<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L							
Lab Count		1.00	1.00	2.00			
Lab Month.Max		5.90	3.46			5.90	
Lab Month.Mean		5.90	3.46		4.68		
Lab Month.Min		5.90	3.46				3.46
Nitrite as N: NO2-N - mg/L							





Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



	19.20	19.90	19.55	19.20
Lab Month.Min	19.20	19.90	19.55	19.20
pH - ---				
Lab Count	1.00	1.00	2.00	
Lab Month.Max	7.75	8.01		8.01
Lab Month.Mean	7.75	8.01	7.88	
Lab Month.Min	7.75	8.01		7.75
Total Phosphorus: TP - mg/L				
Lab Count	1.00	1.00	2.00	
Lab Month.Max	< 0.00	< 0.00	< 0.00	0.00
Lab Month.Mean	< 0.00	< 0.00	< 0.00	
Lab Month.Min	< 0.00	< 0.00		< 0.00
Total Suspended Solids: TSS - mg/L				
Count	1.00	1.00	2.00	
Lab Count	1.00	1.00	2.00	
Lab Month.Max	395.00	444.00		444.00
Lab Month.Mean	395.00	444.00	419.50	
Lab Month.Min	395.00	444.00		395.00
Monitoring Well 7				
	<b>Mar 2025</b>	<b>Sep 2025</b>	<b>2025</b>	<b>Min</b>
	<b>Total</b>	<b>Avg</b>	<b>Max</b>	<b>Min</b>
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L				
Count	1.00	1.00	2.00	
Lab Count	1.00	1.00	2.00	
Lab Month.Max	< 4.00	< 4.00	< 4.00	4.00
Lab Month.Mean	< 4.00	< 4.00	< 4.00	
Lab Month.Min	< 4.00	< 4.00		< 4.00
Conductivity - µS/cm				
Lab Count	1.00	1.00	2.00	

Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



Lab Month..Max	1870.00	2140.00			2140.00		
Lab Month..Mean	1870.00	2140.00		2005.00			
Lab Month..Min	1870.00	2140.00					1870.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L							
Lab Count	1.00	1.00	2.00				
Lab Month..Max	< 0.03	< 0.03			< 0.03		
Lab Month..Mean	< 0.03	< 0.03		< 0.03			
Lab Month..Min	< 0.03	< 0.03				< 0.03	
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L							
Lab Count	1.00	1.00	2.00				
Lab Month..Max	13.90	21.90			21.90		
Lab Month..Mean	13.90	21.90		17.90			
Lab Month..Min	13.90	21.90					13.90
Nitrite as N: NO2-N - mg/L							
Lab Count	1.00	1.00	2.00				
Lab Month..Max	< 0.03	< 0.03			< 0.03		
Lab Month..Mean	< 0.03	< 0.03		< 0.03			
Lab Month..Min	< 0.03	< 0.03				< 0.03	
Nitrate as N: NO3-N - mg/L							
Lab Count	1.00	1.00	2.00				
Lab Month..Max	13.90	21.90			21.90		
Lab Month..Mean	13.90	21.90		17.90			
Lab Month..Min	13.90	21.90					13.90
pH - ---							
Lab Count	1.00	1.00	2.00				
Lab Month..Max	7.70	7.95			7.95		
Lab Month..Mean	7.70	7.95		7.83			
Lab Month..Min	7.70	7.95					7.70

Customized Monthly Report

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



		Mar 2025	Sep 2025	Total	Avg	Max	Min
Monitoring Well 8		2025					
Total Phosphorus: TP - mg/L							
Lab Count		1.00	1.00	2.00			
Lab Month.Max	<	0.00	<		<	0.00	
Lab Month.Mean	<	0.00	<		<	0.00	
Lab Month.Min	<	0.00	<				< 0.00
Total Suspended Solids: TSS - mg/L							
Count		1.00	1.00	2.00			
Lab Count		1.00	1.00	2.00			
Lab Month.Max		849.00	722.00			849.00	
Lab Month.Mean		849.00	722.00		785.50		
Lab Month.Min		849.00	722.00				722.00
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L							
Count		1.00	1.00	2.00			
Lab Count		1.00	1.00	2.00			
Lab Month.Max	<	4.00	<		<	4.00	
Lab Month.Mean	<	4.00	<		<	4.00	
Lab Month.Min	<	4.00	<				< 4.00
Conductivity - µS/cm							
Lab Count		1.00	1.00	2.00			
Lab Month.Max		876.00	1680.00			1680.00	
Lab Month.Mean		876.00	1680.00		1278.00		
Lab Month.Min		876.00	1680.00				876.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L							
Lab Count		1.00	1.00	2.00			
Lab Month.Max	<	0.03	<		<	0.03	
Lab Month.Mean	<	0.03	<		<	0.03	



**Customized Monthly Report**

From 01/01/2025 to 12/31/2025

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY



Count	1.00	1.00	2.00					
Lab Count	1.00	1.00	2.00					
Lab Month.Max	583.00	1510.00				1510.00		
Lab Month.Mean	583.00	1510.00			1046.50			
Lab Month.Min	583.00	1510.00						583.00



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix III:**  
**pH & Temperature Summary**

**Customized Monthly Vertical Report**

From 01/01/2025 to 12/31/2025

Facility Name: KING'S BAY WASTEWATER TREATMENT FACILITY



	pH - ---				Temperature - °C			
	IH Edited Count	IH Mon.Max	IH Mon.Mean	IH Mon.Min	IH Edited Count	IH Mon.Max	IH Mon.Mean	IH Mon.Min
Jan 2025	13.00	7.95	7.64	7.38	13.00	13.10	10.72	8.80
Feb 2025	12.00	7.92	7.49	6.84	12.00	12.20	10.79	9.10
Mar 2025	12.00	8.13	7.83	7.42	12.00	14.10	11.01	9.80
Apr 2025	14.00	8.31	7.79	7.17	14.00	16.20	13.24	9.50
May 2025	13.00	8.40	8.07	7.75	13.00	17.80	16.08	14.40
Jun 2025	13.00	8.22	7.78	7.53	13.00	20.70	18.52	16.20
Jul 2025	14.00	7.88	7.66	7.41	14.00	21.20	20.52	19.70
Aug 2025	12.00	7.52	7.23	6.62	12.00	22.30	20.99	19.50
Sep 2025	12.00	7.46	7.28	7.19	12.00	21.00	20.46	20.00
Oct 2025	15.00	7.90	7.56	7.30	15.00	20.40	18.88	17.30
Nov 2025	12.00	7.79	7.65	7.04	12.00	17.40	15.58	14.00
Dec 2025	14.00	8.04	7.78	7.66	14.00	13.60	12.25	10.00
Total	156.00				156.00			
Avg			7.65				15.79	
Max		8.40				22.30		
Min				6.62				8.80



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## **Appendix IV:**

### **Groundwater Monitoring Wells - Levels**

**Customized Monthly Report**

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



	2025					2025				
	Mar 2025	Jun 2025	Sep 2025	Dec 2025	Total	Mar 2025	Jun 2025	Sep 2025	Dec 2025	Total
Monitoring Well 1										
Well Level - m										
IH Edited Count	1.00	1.00	1.00	1.00	4.00					
IH Month.Max	5.40	5.25	5.87	5.76						5.87
IH Month.Mean	5.40	5.25	5.87	5.76						5.57
IH Month.Min	5.40	5.25	5.87	5.76						5.25
Monitoring Well 2										
Well Level - m										
IH Edited Count	1.00	1.00	1.00	1.00	4.00					
IH Month.Max	6.64	6.35	6.58	6.92						6.92
IH Month.Mean	6.64	6.35	6.58	6.92						6.62
IH Month.Min	6.64	6.35	6.58	6.92						6.35
Monitoring Well 3										
Well Level - m										
IH Edited Count	1.00	1.00	1.00	1.00	4.00					
IH Month.Max	6.95	6.85	7.63	7.41						7.63
IH Month.Mean	6.95	6.85	7.63	7.41						7.21
IH Month.Min	6.95	6.85	7.63	7.41						6.85
Monitoring Well 4										
Well Level - m										
IH Edited Count	1.00	1.00	1.00	1.00	4.00					
IH Month.Max	7.73	7.15	8.73	7.92						8.73
IH Month.Mean	7.73	7.15	8.73	7.92						7.88
IH Month.Min	7.73	7.15	8.73	7.92						7.15

**Customized Monthly Report**

Facility Name: KING'S BAY  
WASTEWATER TREATMENT  
FACILITY

From 01/01/2025 to 12/31/2025



		2025									
		Mar 2025	Jun 2025	Sep 2025	Dec 2025	Total	Avg	Max	Min		
Monitoring Well 5	Well Level - m										
	IH Edited Count	1.00	1.00	1.00	1.00	4.00					
	IH Month.Max	8.20	7.59	8.40	8.36			8.40			
	IH Month.Mean	8.20	7.59	8.40	8.36		8.14				
	IH Month.Min	8.20	7.59	8.40	8.36				7.59		
Monitoring Well 6	Well Level - m										
	IH Edited Count	1.00	1.00	1.00	1.00	4.00					
	IH Month.Max	3.90	5.00	6.02	5.86			6.02			
	IH Month.Mean	3.90	5.00	6.02	5.86		5.20				
	IH Month.Min	3.90	5.00	6.02	5.86				3.90		
Monitoring Well 7	Well Level - m										
	IH Edited Count	1.00	1.00	1.00	1.00	4.00					
	IH Month.Max	3.50	4.60	5.57	5.44			5.57			
	IH Month.Mean	3.50	4.60	5.57	5.44		4.78				
	IH Month.Min	3.50	4.60	5.57	5.44				3.50		
Monitoring Well 8	Well Level - m										
	IH Edited Count	1.00	1.00	1.00	1.00	4.00					
	IH Month.Max	3.30	4.34	5.32	5.10			5.32			
	IH Month.Mean	3.30	4.34	5.32	5.10		4.52				
	IH Month.Min	3.30	4.34	5.32	5.10				3.30		



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix V:**  
**Maintenance Summary**

# Workorder Summary Report

Report Start Date: Jan 1, 2025 12:00 AM

Report End Date: Dec 31, 2025 11:59 PM

Location: 5318\*

Work Order Type: CALL,EMER

Work Order Class:

WO #	Asset Description	Location Description	WorkOrder		Workorder Details			
			Type	Class	Work Order Description	Status	Actual Start	Actual Finish
4334631	GEAR DRIVE 01 RBC	5318, Kings Bay WWTP, Process	CALL	Refurbish/ Replace/ Repair	5318, Kings Bay WWTP, RBC 1 Fail Alarm	CLOSE	1/9/25 01:22 AM	1/9/25 03:00 AM
4338950	PANEL CONTROL RBC	5318, Kings Bay WWTP, Facility, Power Distribution	CALL	Inspection	5318, Kings Bay WWTP, RBC 2 Fault	CLOSE	1/29/25 06:30 AM	1/29/25 07:30 AM
4339131		5318, Kings Bay WWTP	CALL	Refurbish/ Replace/ Repair	5318, Kings Bay WWTP, RBC 2 Fault Alarm	CLOSE	1/30/25 12:53 AM	1/30/25 04:35 AM
4429336		5318, Kings Bay Effluent PS	CALL	Refurbish/ Replace/ Repair	5318, Kings Bay Effluent PS, Effluent Pump Fail Alarm	CLOSE	3/30/25 12:00 PM	3/30/25 04:30 PM
4551109		King's Bay WWTP	CALL	Refurbish/ Replace/ Repair	5318, King's Bay WWTP, Wet Well Level Alarm	CLOSE	5/4/25 03:17 PM	5/4/25 08:31 PM
4759070	PANEL CONTROL EFFLUENT	5318, Kings Bay WWTP, Facility, Power Distribution	CALL	Refurbish/ Replace/ Repair	5318, Kings Bay WWTP, SLC Fault Alarm	CLOSE	8/29/25 09:30 PM	8/30/25 02:30 AM
4759099	PANEL CONTROL EFFLUENT	5318, Kings Bay WWTP, Facility, Power Distribution	EMER	Refurbish/ Replace/ Repair	5318, Kings Bay WWTP, SLC Fault Repair	CLOSE	9/2/25 09:36 AM	9/2/25 09:51 AM

4793525	5318, Kings Bay WWTP, Process	CALL	Compliance	5318, Kings Bay WWTP, RBC Fault Alarm	CLOSE	10/1/25 02:45 PM	10/1/25 02:49 PM
4817100	PUMP SUBMERSIBLE 03 EFFLUENT KINGS BAY [6.5 HP]	CALL	Refurbish/Replace/Repair	5318, Kings Bay Effluent PS, Pump 3 Fault	CLOSE	10/12/25 05:45 AM	10/12/25 09:45 AM
4862002	5318, Kings Bay WWTP, Process, Control & Monitoring	CALL	Refurbish/Replace/Repair	5318, Kings Bay WWT, Influent SPS, Low Level Alarm	CLOSE	11/8/25 05:19 PM	11/8/25 05:26 PM
4862353	PUMP SUBMERSIBLE 01 EFFLUENT KINGS BAY [6 HP]	CALL	Refurbish/Replace/Repair	5318, Kings Bay WWT, Effluent Pump Fault Alarm	CLOSE	11/10/25 07:53 AM	11/10/25 08:00 AM
4909253	5318, Kings Bay WWTP	CALL	Refurbish/Replace/Repair	5318, King's Bay WWT, Effluent Pump 1 Fault Alarm	COMP	12/18/25 09:01 PM	12/18/25 11:42 PM
4910784	5318, Kings Bay Effluent PS, Facility	CALL	Inspection	5318, Kings Bay Effluent PS, Tank Low/High Alarm due to Ice Storm	COMP	12/29/25 12:00 AM	12/29/25 04:30 AM
4910822	PUMP SUBMERSIBLE 03 EFFLUENT KINGS BAY [6.5 HP]	CALL	Compliance	5318, Kings Bay WWTP, Effluent Pump Fault Alarm	COMP	12/29/25 05:57 PM	12/29/25 06:08 PM

# Workorder Summary Report

Report Start Date: Jan 1, 2025 12:00 AM

Report End Date: Dec 31, 2025 11:59 PM

Location: 5318\*

Work Order Type: CAP,CORR

Work Order Class:

WO #	Asset Description	Location Description	WorkOrder		Workorder Details			
			Type	Class	Work Order Description	Status	Actual Start	Actual Finish
4334633	GEAR DRIVE 01 RBC	5318, Kings Bay WWT, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, RBC 1 Chain Broken, Repair/Replace, Follow up to CB WO#4334631	COMP	1/9/25 07:02 AM	1/27/26 12:47 PM
4378913	PUMP SUBMERSIBLE 03 EFFLUENT KINGS BAY [6.5 HP]	5318, Kings Bay Effluent PS, Process	CAP	Refurbish/ Replace/ Repair	5318, Kings Bay Effluent PS, Influent and Effluent Pump Replacement	COMP	12/18/25 03:33 PM	12/18/25 03:33 PM
4711711		5318, Kings Bay Effluent PS	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Effluent Pump UPS	COMP	1/27/26 12:49 PM	1/27/26 12:49 PM
4711836	METER FLOW EFFLUENT 1	5318, Kings Bay WWT, Process, Control & Monitoring	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Flow Meter Repair	CLOSE	8/29/25 01:29 PM	8/29/25 01:32 PM
4815383	PANEL CONTROL RBC	5318, Kings Bay WWT, Facility, Power Distribution	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Facility, RBC 2 Troubleshoot Alarm	CLOSE	10/6/25 07:40 AM	10/14/25 08:28 AM
4863616		5318, Kings Bay Wastewater Collection	CAP	Compliance	5318, Kings Bay Wastewater Collection - Operations and Maintenance Manual Annual Review	COMP	11/21/25 08:22 AM	12/17/25 01:29 PM
4909833	PUMP SUBMERSIBLE 01 EFFLUENT KINGS BAY [6 HP]	5318, Kings Bay Effluent PS, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Effluent 1 Pump Fault	COMP	12/22/25 09:10 AM	1/16/26 12:04 PM
4909959	PUMP SUBMERSIBLE 01 EFFLUENT KINGS BAY [6 HP]	5318, Kings Bay Effluent PS, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Effluent Pump 1 Fault	COMP	12/22/25 12:00 PM	1/16/26 12:02 PM

# Workorder Summary Report

Report Start Date: Jan 1, 2025 12:00 AM

Report End Date: Dec 31, 2025 11:59 PM

Location: 5318\*

Work Order Type: OPER,PM

Work Order Class:

WO #	Asset Description	Location Description	WorkOrder		Workorder Details			
			Type	Class	Work Order Description	Status	Actual Start	Actual Finish
4284766		5318, Kings Bay WWT	PM	Inspection	5318, Kings Bay WWT, Daily Operations	COMP	1/2/26 09:11 AM	1/2/26 09:11 AM
4287048	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	1/15/25 12:20 PM	1/15/25 12:20 PM
4306094		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	1/15/25 12:21 PM	1/15/25 12:21 PM
4309769		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	1/15/25 12:23 PM	1/15/25 12:23 PM
4343311	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	2/6/25 11:30 AM	2/6/25 11:30 AM
4357757		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	2/6/25 11:31 AM	2/6/25 11:31 AM
4360194		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	2/6/25 09:01 AM	2/6/25 09:01 AM
4371829		5318, Kings Bay WWT	PM	HEALTH AND SAFETY	H & S Equipment Check (1m) - 5318 - KTS	CLOSE	2/6/25 11:34 AM	2/6/25 11:34 AM
4386540		5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment Inspection (6m) - 5318- KTS	CLOSE	3/19/25 10:22 AM	3/19/25 10:22 AM
4386542		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	4/24/25 07:00 AM	5/13/25 08:30 AM

4386805	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	3/19/25 02:03 PM	3/19/25 02:03 PM
4386808	TANK PROCESS 5318, Kings Bay WWT, WET WELL EFFLUENT Process	PM	Refurbish/ Replace/ Repair	Tank Wetwell Cleaning/Inspection (1y) - 5318 Effluent- KTS	CLOSE	6/24/25 03:25 PM	6/24/25 03:25 PM
4387372	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	4/24/25 10:00 AM	4/24/25 10:30 AM
4402367	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	3/19/25 02:02 PM	3/19/25 02:02 PM
4404689	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	3/4/25 01:28 PM	3/4/25 01:28 PM
4416995	5318, Kings Bay WWT	PM	HEALTH AND SAFETY	H & S Equipment Check (1m) - 5318 - KTS	CLOSE	3/19/25 02:05 PM	3/19/25 02:05 PM
4433554	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	4/8/25 12:00 PM	4/8/25 12:30 PM
4451952	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	4/23/25 10:30 AM	4/23/25 11:00 AM
4453861	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Gear Drive RBC #1 Inspection/Service (1y) - 5318 - KTS	COMP	1/29/26 12:25 PM	1/29/26 12:25 PM
4453867	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Gear Drive RBC #2 Inspection/Service (1y) - 5318 - KTS	COMP	1/29/26 12:26 PM	1/29/26 12:26 PM
4454887	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	10/31/25 11:34 AM	10/31/25 11:34 AM
4494170	5318, Kings Bay WWT	PM	Inspection	Lifting Devices & Fall Arrest Inspection by Contractor (1y) - 5318 - KTS	CLOSE	6/13/25 12:00 AM	6/13/25 12:00 AM
4494306	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	5/7/25 08:08 AM	5/7/25 08:08 AM

4494309	TANK PROCESS 5318, Kings Bay WWT, WET WELL INFLUENT	PM	Refurbish/ Replace/ Repair	Tank Wetwell Cleaning/Inspection (6m) - 5318 Influent- KTS	CLOSE	6/27/25 01:23 PM	6/27/25 01:23 PM
4511882	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	5/7/25 08:11 AM	5/7/25 08:11 AM
4514406	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	5/9/25 09:29 AM	5/9/25 09:29 AM
4560692	5318, Kings Bay WWT	PM	Calibration	Online Process Equipment Calibration Service by Contractor (1y) - 5318 - KTS	CLOSE	6/17/25 07:00 AM	6/17/25 03:30 PM
4560697	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	8/1/25 02:14 PM	8/1/25 02:14 PM
4560968	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	6/25/25 10:12 AM	6/25/25 10:12 AM
4561423	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	8/1/25 02:16 PM	8/1/25 02:16 PM
4579605	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	6/25/25 10:11 AM	6/25/25 10:11 AM
4582352	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	9/9/25 03:10 PM	9/9/25 03:10 PM
4612407	5318, Kings Bay Effluent PS	OPER	Inspection	Grating Insp (1y) - 5318, Kings Bay Effluent PS - KTS	COMP	1/30/26 02:48 PM	1/30/26 02:48 PM
4612419	5318, Kings Bay Influent PS	OPER	Inspection	Grating Insp (1y) - 5318, Kings Bay Influent PS - KTS	COMP	1/30/26 02:46 PM	1/30/26 02:46 PM
4612431	5318, Kings Bay Wastewater Collection	OPER	Inspection	Grating Insp (1y) - 5318, Kings Bay Wastewater Collection - KTS	CLOSE	7/14/25 01:37 PM	7/14/25 01:37 PM
4612443	5318, Kings Bay WWT	OPER	Inspection	Grating Insp (1y) - 5318, Kings Bay WWT - KTS	COMP	1/30/26 02:42 PM	1/30/26 02:42 PM

4624320	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	7/4/25 07:44 AM	7/4/25 07:44 AM
4640514	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	7/4/25 07:45 AM	7/4/25 07:45 AM
4646730	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	8/12/25 07:31 AM	8/12/25 07:31 AM
4669040	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	8/29/25 08:55 AM	8/29/25 08:55 AM
4684193	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	8/29/25 08:57 AM	8/29/25 08:57 AM
4686479	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	8/12/25 07:30 AM	8/12/25 07:30 AM
4715606	5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment Inspection (6m) - 5318- KTS	CLOSE	9/19/25 05:00 PM	9/19/25 05:00 PM
4715608	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	9/19/25 04:31 PM	9/19/25 04:31 PM
4716063	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	9/16/25 02:43 PM	9/16/25 02:43 PM
4716622	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	9/19/25 04:58 PM	9/19/25 04:58 PM
4733881	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	9/16/25 02:46 PM	9/16/25 02:46 PM
4736678	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	10/15/25 09:59 AM	10/15/25 09:59 AM
4769197	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	10/17/25 10:35 AM	10/17/25 10:35 AM
4785024	5318, Kings Bay WWT	PM	Inspection	UPS Insp/Service (1y) - 5318 - KTS	COMP	1/29/26 11:28 AM	1/29/26 11:28 AM
4786425	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	10/17/25 10:37 AM	10/17/25 10:37 AM
4788270	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	10/15/25 10:00 AM	10/15/25 10:00 AM
4816132	5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment Inspection (6m) - 5318- KTS	CLOSE	10/17/25 02:12 PM	10/17/25 02:12 PM
4817466	5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment	CAN		

		Inspection (6m) - 5318- K1S		
4823636	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS CLOSE 11/21/25 02:33 PM 11/21/25 02:33 PM
4823639	TANK PROCESS 5318, Kings Bay WWT, WET WELL INFLUENT Process	PM	Refurbish/ Replace/ Repair	Tank Wet Well Cleaning/Inspection (6m) - 5318 Influent- KTS COMP 2/18/26 11:11 AM 2/18/26 11:11 AM
4837964	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS CLOSE 11/21/25 02:31 PM 11/21/25 02:31 PM
4840712	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS CLOSE 11/18/25 12:21 PM 11/18/25 12:21 PM
4868627	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS COMP 12/17/25 03:19 PM 12/17/25 03:19 PM
4868854	TANK STORAGE 5318, Kings Bay WWT, ALUM BULK Process	PM	Refurbish/ Replace/ Repair	Tank Alum Inspection (1m) - 5318 - KTS CLOSE 12/10/25 12:16 PM 12/10/25 12:16 PM
4869151	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/ Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS COMP 12/17/25 03:22 PM 12/17/25 03:22 PM
4883662	5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS CLOSE 12/10/25 12:19 PM 12/10/25 12:19 PM
4885885	5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS CLOSE 12/11/25 09:49 AM 12/11/25 09:49 AM



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix VI:**  
**Calibration Report**



**Franklin Empire Inc,**  
550 Braidwood Ave  
Peterborough ON K9J 1W1, CANADA

Tel: (705) 745-1626  
Fax: (705) 745-3493

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## **OCWA Kawartha**

### **2025 Calibrations Kings Bay WTP & WWTP**

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*Leaders in Instrumentation and Control*

	CALIBRATION REPORT	Report No.:	OCWA K 2025 <span style="float: right;">PIT</span>
			Date:

**SITE:** Kings Bay WTP  
**PROCESS AREA:** Treated pressure  
**INSTR. TAG:** PIT  
**MANUFACTURER:** Moore  
**MODEL:**  
**SERIAL No.:**  
**OCWA CODE No.:** Kawartha Lakes W/WW 0000426541

**SERVICE DATE:** June 17, 2025  
**TECHNICIAN:** Mitch Manley  
**JOB REFERENCE:** OCWA K 2025

Input (Test)			Output (Signal) (Process)			
Type:	PSI		Type or EGU:	mA	PSI	
Min:	0.00		Min:	4.00	0.00	
Max:	100.00		Max:	20.00	100.00	
			Before Calibration		After Calibration	
Test PSI	%	mA	PSI	Error	PSI	Error
0.00	0.00%	4.00	0.0	0.00%	0.0	0.00%
25.00	25.00%	8.00	25.0	0.00%	25.0	0.00%
50.00	50.00%	12.00	50.2	0.40%	50.2	0.40%
75.00	75.00%	16.00	75.3	0.40%	75.3	0.40%
100.00	100.00%	20.00	100.5	0.50%	100.5	0.50%

Calibration Equipment			
Type:	Pressure Calibrator	DMM	
Manufacturer:	Crystal	Fluke	
2019 Calibrations:	XP2i 300 PSI	Model 87	
Serial No.:	153455	13440128	
Last Cal. Date:	Dec. 5, 2024	Feb. 11, 2025	

Comments:

AS FOUND: PASS

AS LEFT: PASS

**CERTIFIED BY:** 

	<h2 style="margin:0;">CALIBRATION REPORT</h2>	<b>Report No.:</b> OCWA K 2025 AIT-TURB
		<b>Date:</b> 17-Jun-25

**SITE:** KING'S BAY WTP  
**PROCESS AREA:** Turbidity  
**INSTR. TAG:** AIT-TURB  
**MANUFACTURER:** Hach  
**MODEL:** SC100 / 1720E  
**SERIAL No.:** 090600326041 / 09060C0453  
**OCWA CODE:** 0000295631 / 0000192455

**SERVICE DATE:** June 17, 2025  
**TECHNICIAN:** Mitch Manley  
**JOB REFERENCE:** OCWA K 2025

Input	(Test)	Output	(Signal)	(Process)	
Type:	NTU	Type or EGU:	mA	NTU	
Min:	0.00	Min:	4.00	0.00	
Max:	2.00	Max:	20.00	2.00	
		Before Calibration		After Calibration	
	User Prepared 20 NTU	Formazine 20 NTU			
			Gain		Gain
		20.25	1.41	20.00	1.43

Calibration Equipment			
Type:	Verification Module	Formazine	
Manufacturer:	HACH	Hach	
Model:	ICE PIC	4000 NTU	
Serial No.:		Lot A4362	
Last Cal. Date:		Exp Dec. 2026	

**Comments:** Zeroed Electronics, Ice Pic Pass, Increased flow slightly

**AS FOUND:** PASS

**AS LEFT:** PASS

**CERTIFIED BY:** 



# CALIBRATION REPORT

Report No.: OCWA K 2025 AIT-CL2

Date: 17-Jun-25

SITE: KING'S BAY WTP  
 PROCESS AREA: Treated Chlorine  
 INSTR. TAG: AIT-CL2  
 MANUFACTURER: Prominent s/n 2010142498  
 MODEL: Dulcometer D1CAW1C10001G000E  
 PROBE: Typ CLE 3.1  
 OCWA CODE: 0000192861

SERVICE DATE: June 17, 2025  
 TECHNICIAN: Mitch Manley  
 JOB REFERENCE: OCWA K 2025

Input	(Test)	Output	(Signal)	(Process)	
Type:	Chlorine	Type or EGU:	mA	mg/L	
Min:	0.00	Min:	4.00	0.00	
Max:	5.00	Max:	20.00	5.00	
		Before Calibration		After Calibration	
		Flow (l/h)	30	Flow (l/h)	40
	Cl2	Cl2	1.43	Cl2	1.57
		Zero	Slope	Zero	Slope
		4.00mA	0.71 mA/ppm	4.00mA	0.78 mA/ppm

Calibration Equipment			
Type:	pH Buffers	DPD Tester	
Manufacturer:	7 & 10	Hach	
Model:	HACH	Pocket Colorimeter II	
Serial No.:		13040E220668	
Last Cal. Date:		Mar. 28 2025	

Comments: pH in Manual 7.37 pH

AS FOUND: PASS

AS LEFT: PASS

CERTIFIED BY:



# CALIBRATION REPORT

Report No.: OCWA K 2025 FIT-Well 4

Date: 17-Jun-25

SITE: KING'S BAY WTP  
 PROCESS AREA: RAW WATER FLOW  
 INSTR. TAG: FIT-Well 4  
 MANUFACTURER: ABB  
 MODEL: Mag Master  
 SERIAL No.: V/36023/4/2  
 OCWA No.: 0000114620

SERVICE DATE: June 17, 2025  
 TECHNICIAN: Mitch Manley  
 JOB REFERENCE: OCWA K 2025

Input (Test)			Output (Signal)		Output (Process)	
Type:	ABB Simulator		Type or EGU:	E&H	Liter/Sec	
Min:	0.00		Min:	0.00	0.00	
Max:	3.8764		Max:	3.00	3.00	
DN (mm):	25		6.4			
Velocity Range:	6.111536					
Constant:	0.0007854					
Sensor Factor 1:	1.57662					
			Before Calibration		After Calibration	
Input (m/s nominal)	Input %	Calc. O/P	Output	%Error	Output	%Error
0.00	0.00%	0.00	0.00	0.00%	0.00	0.00%
0.10	2.58%	0.08	0.08	0.00%	0.08	0.00%
0.20	5.16%	0.15	0.15	0.00%	0.15	0.00%
0.50	12.90%	0.39	0.39	0.00%	0.39	0.00%
1.00	25.80%	0.77	0.77	0.00%	0.77	0.00%
2.00	51.59%	1.55	1.55	0.00%	1.55	0.00%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 11, 2025	May 9, 2025	

Comments: Snsr Fact 1> 1.57662  
 Snsr Fact 2>-7  
 Snsr Fact 3> 5  
 Snsr Fact 4> 1.00000

AS FOUND: PASS

AS LEFT: PASS

CERTIFIED BY:



# CALIBRATION REPORT

Report No.: OCWA K 2025 FIT-Well 2

Date: 17-Jun-25

SITE: KING'S BAY WTP  
 PROCESS AREA: RAW WATER FLOW  
 INSTR. TAG: FIT-Well 2  
 MANUFACTURER: ABB  
 MODEL: Mag Master  
 SERIAL No.: V/36023/5/1  
 OCWA No.: 0000114621

SERVICE DATE: June 17, 2025  
 TECHNICIAN: Mitch Manley  
 JOB REFERENCE: OCWA K 2025

Input (Test)			Output (Signal)		Output (Process)	
Type:	ABB Simulator		Type or EGU:	E&H	Liter/Sec	
Min:	0.00		Min:	0.00	0.00	
Max:	3.8764		Max:	3.00	3.00	
DN (mm):	25					
Velocity Range:	6.111536					
Constant:	0.0007854					
Sensor Factor 1:	1.57660	1.57				
			Before Calibration		After Calibration	
Input (m/s nominal)	Input %	Calc. O/P	Output	%Error	Output	%Error
0.00	0.00%	0.000	0.00	0.00%	0.00	0.00%
0.10	2.58%	0.077	0.08	3.90%	0.08	3.90%
0.20	5.16%	0.155	0.15	-3.23%	0.15	-3.23%
0.50	12.90%	0.387	0.39	0.78%	0.39	0.78%
1.00	25.80%	0.774	0.77	-0.52%	0.77	-0.52%
2.00	51.59%	1.548	1.54	-0.52%	1.54	-0.52%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 11, 2025	May 9, 2025	

Comments: Snsr Fact 1> 1.57159  
 Snsr Fact 3> 5  
 Snsr Fact 4> 1.00000  
 Plug Loose

AS FOUND: PASS

AS LEFT: PASS

CERTIFIED BY:



# CALIBRATION REPORT

Report No.: OCWA K 2025 FIT-Well 3

Date: 17-Jun-25

SITE: KING'S BAY WTP  
 PROCESS AREA: RAW WATER FLOW  
 INSTR. TAG: FIT-Well 3  
 MANUFACTURER: ABB  
 MODEL: Mag Master  
 SERIAL No.: V/36023/5/3  
 OCWA No.: 0000114622

SERVICE DATE: June 17, 2025  
 TECHNICIAN: Mitch Manley  
 JOB REFERENCE: OCWA K 2025

Input (Test)			Output (Signal)		Output (Process)	
Type:	ABB Simulator		Type or EGU:	E&H	Liter/Sec	
Min:	0.00		Min:	0.00	0.00	
Max:	3.7936		Max:	3.00	3.00	
DN (mm):	25		6.6			
Velocity Range:	6.111536					
Constant:	0.0007854					
Sensor Factor 1:	1.611					
			Before Calibration		After Calibration	
Input (m/s nominal)	Input %	Calc. O/P	Output	%Error	Output	%Error
0.00	0.00%	0.000	0.00	0.00%	0.00	0.00%
0.10	2.64%	0.079	0.08	1.16%	0.08	1.16%
0.20	5.27%	0.158	0.16	1.16%	0.16	1.16%
0.50	13.18%	0.395	0.40	1.16%	0.40	1.16%
1.00	26.36%	0.791	0.79	-0.10%	0.79	-0.10%
2.00	52.72%	1.582	1.59	0.53%	1.59	0.53%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 11, 2025	May 9, 2025	

Comments: Snsr Fact 1> 1.61100  
 Snsr Fact 2>-3  
 Snsr Fact 4> 1.00000

Unit doesn't power up correctly, it reboots a few times, it takes a few minutes. Recommend replace.

AS FOUND: PASS

AS LEFT: PASS

CERTIFIED BY:



# CALIBRATION REPORT

Report No.: OCWA K 2025 QIR-1

Date: 17-Jun-25

SITE: Kings Bay WTP  
 PROCESS AREA: E&H Videographic chart recorder  
 INSTR. TAG: QIR-1  
 MANUFACTURER: E&H  
 MODEL: RSG40 (Well Head / Main Plant)  
 SERIAL No.: F6005E04267 / J8008C04267  
 OCWA CODE: 0000204963 / '0000277524

SERVICE DATE: June 17, 2025  
 TECHNICIAN: Mitch Manley  
 JOB REFERENCE: OCWA K 2025

Input (Test)			Output (Signal) (Process)			
Type:	mA		Type or EGU:	mA		
Min:	4.00		Min:	4.00		
Max:	20.00		Max:	20.00		
			Before Calibration		After Calibration	
			Display		Display	
Cl2 Finished	mg/l	0.00				
	0-5	1.57	1.57		1.57	
Turb Finished	NTU	0.00	0.00		0.00	
	0-2	2.000	2.01		2.01	
Raw Flow	l/s	0.00	0.00		0.00	
	0-8	8.00	8.00		8.00	
Treated Flow	l/s	0.00	0.00		0.00	
	0-10	20mA	****		****	
WWTP Pump 1	mA	Tested	OK		OK	
WWTP Pump 2	mA	Tested	OK		OK	
WWTP Pump 3	mA	Tested	OK		OK	
WWTP Pump 4	mA	Tested	OK		OK	

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 11, 2025	May 9, 2025	

Comments: \*\*\*\* mA works from flowmeter, but maxed out at 7.6, suspect something faulty in the current loop.

	<h1>CALIBRATION REPORT</h1>	<b>Report No.:</b> OCWA K 2025 CW 1 Level
		<b>Date:</b> 17-Jun-25

**SITE:** Kings Bay WTP  
**PROCESS AREA:** Clearwell 1 Water Level  
**INSTR. TAG:** CW 1 Level  
**MANUFACTURER:** Milltronics  
**MODEL:** Hydromanager Plus  
**SERIAL No.:**  
**OCWA.#:** 0000114565

**SERVICE DATE:** June 17, 2025  
**TECHNICIAN:** Mitch Manley  
**JOB REFERENCE:** OCWA K 2025

Input	(Test)	(Error)	Output	(Signal)	(Process)
Cell 2	Instrument	Calculated	Type or EGU:	mA	meters
2.71	2.700	-0.24%	Min:	4.00	0.00
			Max:	20.00	4.10
Main Parameters			No echo profile available for this unit.		
P001	level				
P002	liquid				
P003	slow				
P004	XPS 10				
P005	meters				
P006	Empty 5.35m				
P007	span 4.10m				
Confidence	0:11				
Full Parameter list available if required					

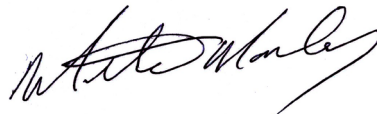
Calibration Equipment			
Type:	DMM	Laser	Tape Measure
Manufacturer:	Fluke	Hilti	Stanley
Model:	Model 87	PD30	5m/25ft
Serial No.:	13440128		
Last Cal. Date:	Feb. 11, 2025		

**Comments:** Clearwells were equalized, Cells matched Cell 1 2.70 Cell 2 2.71  
 Adjusted Transducer position Confidence increased to 0:15  
 Clearwell measures deeper than the transmitters are reading.

**AS FOUND:** PASS

**AS LEFT:** PASS

**CERTIFIED BY:**





# CALIBRATION REPORT

Report No.: OCWA K 2025 CW 2 Level LIT 402

Date: 17-Jun-25

SITE: Kings Bay WTP  
 PROCESS AREA: Clearwell 2 Water Level  
 INSTR. TAG: CW 2 Level LIT 402  
 MANUFACTURER: Milltronics  
 MODEL: MR200 HMI  
 SERIAL No.: PBD-S1110007  
 OCWA.#: 0000346119

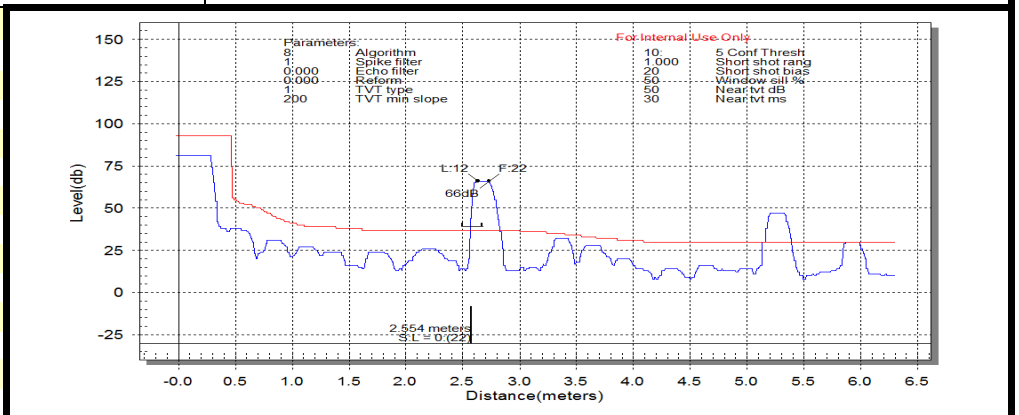
SERVICE DATE: June 17, 2025

TECHNICIAN: Mitch Manley

JOB REFERENCE: OCWA K 2025

Input	(Test)	(Error)	Output	(Signal)	(Process)
Distance:	Instrument	Calculated	Type or EGU:	mA	meters
2.98	2.710	-6.59%	Min:	4.00	0.00
			Max:	20.00	4.10

Main Parameters	
P001	level
P002	liquid
P003	Medium
P004	XPS 5
P005	meters
P006	Empty 5.27m
P007	span 4.10m
Confidence	
Full Parameter list available if required	



Calibration Equipment			
Type:	DMM	Laser	Tape Measure
Manufacturer:	Fluke	Hilti	Stanley
Model:	Model 87	PD30	5m/25ft
Serial No.:	13440128		
Last Cal. Date:	Feb. 11, 2025		

Comments: Clearwells were equalized, Cells matched Cell 1 2.70 Cell 2 2.71 Measured 2.98

Clearwell measures deeper than transmitters are reading.

AS FOUND: PASS

AS LEFT: PASS

CERTIFIED BY:



## VeriMaster - Flow Meter Verification Report

Customer Information		Meter Information	
<b>Customer</b>	OCWA	<b>Meter Owner</b>	Kings Bay WTP
<b>Verification Download</b>	Tue, Jun 17, 2025	<b>Meter Type</b>	WaterMaster
		<b>Sensor Size</b>	DN40
		<b>Pipe Status</b>	Fluid Present
		<b>Sensor Type</b>	Fullbore
		<b>Sensor Serial No</b>	3K620000228958
		<b>Transmitter Serial No</b>	3K620000228958
		<b>Tag</b>	
		<b>Location</b>	RAW

### Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/-1% of its original factory calibration

Summary of Results		Verification History	
<b>Coil Group</b>	Passed	<b>OIML Accuracy Alarms</b>	0
<b>Electrode Group</b>	Passed	<b>Totaliser Information</b>	
<b>Sensor Group</b>	Passed	<b>Forward</b>	118612.00 m3
<b>Transmitter Signal</b>	Passed	<b>Reverse</b>	0.00 m3
<b>Transmitter Driver</b>	Passed	<b>Net</b>	118612.00 m3
<b>Output Group</b>	Passed	<b>Sensor Data</b>	
<b>Configuration</b>	Passed	<b>Coil Current</b>	179.9 mA
		<b>Coil Inductance</b>	134.6 mH
		<b>Coil Inductance Shift</b>	0.0%
		<b>Coil / Loop Resistance</b>	26.0 ohm
<b>Sensor Information</b>		<b>Transmitter Data</b>	
<b>Q3</b>	11.11 l/s	<b>Tx Gain - Adjustment</b>	0.0%
<b>Calibration Accuracy</b>	Retrofit	<b>VeriMaster Information</b>	
<b>Sensor Calibration Factors</b>	67.3%; 6.90 mm/s; 26	<b>Version</b>	01.00.03
<b>Date of Manufacture</b>	29 Apr 2017	<b>Limit Version</b>	01.00.01
<b>Run Hours</b>	1408days 14hrs 464mins	<b>Pulse Output</b>	
<b>Transmitter Information</b>		<b>Output 1: 1200.0Hz</b>	Not tested
<b>Application Version</b>	V01.07.00 03/02/17	<b>Output 1: 600.0Hz</b>	Not tested
<b>MSP Version</b>	→▼	<b>Output 2: 1200.0Hz</b>	Not tested
<b>Date of Manufacture</b>	29 Apr 2017	<b>Output 2: 600.0Hz</b>	Not tested
<b>Run Hours</b>	2819days 19hrs 27904mins		
<b>Current Output</b>			
<b>4mA Value</b>	Pass : 4.000 mA ; 0.00%		
<b>12mA Value</b>	Pass : 11.984 mA ; 0.13%		
<b>20mA Value</b>	Pass : 20.000 mA ; 0.00%		

Installation Comments / Equipment used:	Configuration Settings
Raw Flow	<b>Mains Frequency</b> 60 Hz
	<b>Qmax</b> 8.00 l/s
	<b>Pulses/Unit</b> 120.000000
	<b>Pulses Limit Frequency</b> 1200.0 Hz
	<b>Sensor User Span/Zero</b> 100.0%; 0.00 mm/s
	<b>User Flow Cutoff/Hysteresis</b> 3.00%; 20%
	<b>Meter Mode</b> Forward Flow

Date Tue, Jun 17, 2025

Operator Signature

Print

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# SIEMENS MAGFLO® Verification Certificate

## Customer:

Name OCWA Kawartha  
 Address Kings Bay WTP  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Email \_\_\_\_\_

## MAGFLO® Identification:

TAG No./Name 0  
 Sensor Code No. 7ME658  
 Sensor Serial No. 527103U305  
 Converter Code No. 7ME69101AA101AA0  
 Converter Serial No. IXF72111785  
 Location Treated Flow

## Results:

**Verification file name or No.** Treated Flow  
**Converter** Passed  
**Sensor** Insulation Passed  
 Magnetic Circuit Passed

Velocity	Current Output			Frequency Output		
	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.802mA	0.29%	0.500kHz	0.501kHz	0.15%
1.0m/s	5.600mA	5.600mA	0.00%	1.000kHz	1.000kHz	-0.02%
3.0m/s	8.800mA	8.797mA	-0.07%	3.000kHz	3.000kHz	-0.01%

Current Output 4-20mA

Frequency Output 0-10kHz

## Converter Settings:

### Basic

Qmax. 10.0 l/s  
 Flow Direction Positive  
 Low flow Cut-off 1.50%  
 Empty Pipe OFF

### Output

Current Output ON (4-20mA)  
 Time Constant 5.0 Sec.  
 Relay Output Error Level  
 Digital Output Pulse  
 Frequency Range N/A  
 Time Constant N/A  
 Volume/pulse 0.99999953 US G/p  
 Pulse width 0.066 sec.  
 Pulse polarity Positiv

Totalizer 1 value before test 174041.5 m³  
 Totalizer 1 value after test 174041.515625 m³  
 Totalizer 2 value before test 8.76602936 m³  
 Totalizer 2 value after test 8.76769352 m³

## Sensor Details:

Size DN 40 1 1/2 IN  
 Cal. Factor 1.1038487  
 Correction Factor 1.0  
 Excitation Freq. 15.0Hz

## Vericator Details (083F5060)

Serial No. 000811N218  
 Device No. 91739  
 Software Version 1.40  
 PC-Software Version 4.02  
 Cal. date 2024.10.09  
 ReCal. date 2025.10.09

## Comments

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.  
 Verification is traceable to National and International Standards.

Date and signature

2025.06.17

M Manley

# SIEMENS MAGFLO® Verification Certificate

## Customer:

Name OCWA Kawartha  
 Address Kings Bay WWTP  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Email \_\_\_\_\_

## MAGFLO® Identification:

TAG No./Name 0  
 Sensor Code No. 7ME658  
 Sensor Serial No. 041101U493  
 Converter Code No. 7ME691  
 Converter Serial No. 229730U463  
 Location RBC #1

## Results:

**Verification file name or No.** RBC #1  
**Converter** Passed  
**Sensor** Insulation Passed  
 Magnetic Circuit Passed

Velocity	Current Output			Frequency Output		
	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.796mA	-0.44%	0.500kHz	0.497kHz	-0.53%
1.0m/s	5.600mA	5.600mA	-0.02%	1.000kHz	1.000kHz	-0.02%
3.0m/s	8.800mA	8.800mA	0.00%	3.000kHz	3.002kHz	0.07%

Current Output 4-20mA

Frequency Output 0-10kHz

## Converter Settings:

**Basic**  
 Qmax. 10.0 l/s  
 Flow Direction Positive  
 Low flow Cut-off 1.50%  
 Empty Pipe ON

**Output**  
 Current Output ON (4-20mA)  
 Time Constant 5.0 Sec.  
 Relay Output Error Level  
 Digital Output Pulse  
 Frequency Range N/A  
 Time Constant N/A  
 Volume/pulse 0.99999953 US G/p  
 Pulse width 0.066 sec.  
 Pulse polarity Positiv

Totalizer 1 value before test 104411.6328125 m<sup>3</sup>  
 Totalizer 1 value after test 104411.6484375 m<sup>3</sup>  
 Totalizer 2 value before test 1042.81982422 m<sup>3</sup>  
 Totalizer 2 value after test 1042.81982422 m<sup>3</sup>

## Sensor Details:

Size DN 80 3 IN  
 Cal. Factor 5.12170267  
 Correction Factor 1.0  
 Excitation Freq. 7.5Hz

## Vericator Details (083F5060)

Serial No. 000811N218  
 Device No. 91739  
 Software Version 1.40  
 PC-Software Version 4.02  
 Cal. date 2024.10.09  
 ReCal. date 2025.10.09

## Comments

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.  
 Verification is traceable to National and International Standards.

Date and signature

2025.06.17

M Manley

# SIEMENS MAGFLO® Verification Certificate

## Customer:

Name OCWA Kawartha  
 Address Kings Bay WWTP  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Email \_\_\_\_\_

## MAGFLO® Identification:

TAG No./Name 0  
 Sensor Code No. 7ME658  
 Sensor Serial No. 041001U493  
 Converter Code No. 7ME691  
 Converter Serial No. 231030U463  
 Location RBC #2

## Results:

**Verification file name or No.** RBC #2  
**Converter** Passed  
**Sensor** Insulation Passed  
 Magnetic Circuit Passed

Velocity	Current Output			Frequency Output		
	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.806mA	0.80%	0.500kHz	0.501kHz	0.10%
1.0m/s	5.600mA	5.604mA	0.22%	1.000kHz	0.999kHz	-0.14%
3.0m/s	8.800mA	8.807mA	0.14%	3.000kHz	3.001kHz	0.04%

Current Output 4-20mA

Frequency Output 0-10kHz

## Converter Settings:

**Basic**  
 Qmax. 10.0 l/s  
 Flow Direction Positive  
 Low flow Cut-off 9.50%  
 Empty Pipe ON

**Output**  
 Current Output ON (4-20mA)  
 Time Constant 5.0 Sec.  
 Relay Output Error Level  
 Digital Output Pulse  
 Frequency Range N/A  
 Time Constant N/A  
 Volume/pulse 0.99999953 US G/p  
 Pulse width 0.066 sec.  
 Pulse polarity Positiv

Totalizer 1 value before test 102734.546875 m³  
 Totalizer 1 value after test 102734.5625 m³  
 Totalizer 2 value before test 2913.20117188 m³  
 Totalizer 2 value after test 2913.20166016 m³

## Sensor Details:

Size DN 80 3 IN  
 Cal. Factor 4.97646475  
 Correction Factor 1.0  
 Excitation Freq. 7.5Hz

## Vericator Details (083F5060)

Serial No. 000811N218  
 Device No. 91739  
 Software Version 1.40  
 PC-Software Version 4.02  
 Cal. date 2024.10.09  
 ReCal. date 2025.10.09

## Comments

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.  
 Verification is traceable to National and International Standards.

Date and signature

2025.06.17

M Manley



## VeriMaster - Flow Meter Verification Report

Customer Information		Meter Information	
<b>Customer</b>	OCWA	<b>Meter Owner</b>	Kings Bay WW
<b>Verification Download</b>	Tue, Jun 17, 2025	<b>Meter Type</b>	WaterMaster
		<b>Sensor Size</b>	DN100
		<b>Pipe Status</b>	Fluid Present
		<b>Sensor Type</b>	Fullbore
		<b>Sensor Serial No</b>	3K620000164062
		<b>Transmitter Serial No</b>	3K620000168464
		<b>Tag</b>	ABB Warminster
		<b>Location</b>	?

### Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/-1% of its original factory calibration

Summary of Results		Verification History	
<b>Coil Group</b>	Passed	<b>OIML Accuracy Alarms</b>	0
<b>Electrode Group</b>	Passed	<b>Totaliser Information</b>	
<b>Sensor Group</b>	Passed	<b>Forward</b>	40801.61 m3
<b>Transmitter Signal</b>	Passed	<b>Reverse</b>	1317.24 m3
<b>Transmitter Driver</b>	Passed	<b>Net</b>	39484.38 m3
<b>Output Group</b>	Passed	<b>Sensor Data</b>	
<b>Configuration</b>	Passed	<b>Coil Current</b>	179.9 mA
		<b>Coil Inductance</b>	205.1 mH
		<b>Coil Inductance Shift</b>	-0.1%
		<b>Coil / Loop Resistance</b>	39.1 ohm
<b>Sensor Information</b>		<b>Transmitter Data</b>	
<b>Q3</b>	69.44 l/s	<b>Tx Gain - Adjustment</b>	0.3%
<b>Calibration Accuracy</b>	OIML Class 2	<b>VeriMaster Information</b>	
<b>Sensor Calibration Factors</b>	88.1%; 0.00 mm/s; 26	<b>Version</b>	01.00.03
<b>Date of Manufacture</b>	20 May 2014	<b>Limit Version</b>	01.00.01
<b>Run Hours</b>	3828days 15hrs 55mins	<b>Pulse Output</b>	
<b>Transmitter Information</b>		<b>Output 1: 1200.0Hz</b>	Not tested
<b>Application Version</b>	V01.05.00 12/07/12	<b>Output 1: 600.0Hz</b>	Not tested
<b>MSP Version</b>	00.00.04	<b>Output 2: 1200.0Hz</b>	Not tested
<b>Date of Manufacture</b>	20 May 2014	<b>Output 2: 600.0Hz</b>	Not tested
<b>Run Hours</b>	5092days 16hrs 10mins		
<b>Current Output</b>			
<b>4mA Value</b>	Pass : 4.000 mA ; 0.00%		
<b>12mA Value</b>	Pass : 11.972 mA ; 0.23%		
<b>20mA Value</b>	Pass : 19.972 mA ; 0.14%		

Installation Comments / Equipment used:	Configuration Settings
P1 Pass	<b>Mains Frequency</b>   60 Hz
	<b>Qmax</b>   10.00 l/s
	<b>Pulses/Unit</b>   120.000000
	<b>Pulses Limit Frequency</b>   1200.0 Hz
	<b>Sensor User Span/Zero</b>   100.0%; 0.00 mm/s
	<b>User Flow Cutoff/Hysteresis</b>   3.00%; 20%
	<b>Meter Mode</b>   Normal operation

Date Tue, Jun 17, 2025

Operator Signature

Print

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## VeriMaster - Flow Meter Verification Report

Customer Information		Meter Information	
<b>Customer</b>	OCWA	<b>Meter Owner</b>	Kings Bay P2
<b>Verification Download</b>	Tue, Jun 17, 2025	<b>Meter Type</b>	Sensor Size
		<b>Sensor Size</b>	DN100
		<b>Pipe Status</b>	Fluid Present
		<b>Sensor Type</b>	Fullbore
		<b>Sensor Serial No</b>	3K620000168465
		<b>Transmitter Serial No</b>	3K620000168466
		<b>Tag</b>	?
		<b>Location</b>	?

### Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within + / -1% of its original factory calibration

Summary of Results		Verification History	
<b>Coil Group</b>	Passed	<b>OIML Accuracy Alarms</b>	0
<b>Electrode Group</b>	Passed	<b>Totaliser Information</b>	
<b>Sensor Group</b>	Passed	<b>Forward</b>	46385.45 m3
<b>Transmitter Signal</b>	Passed	<b>Reverse</b>	1584.66 m3
<b>Transmitter Driver</b>	Passed	<b>Net</b>	44800.79 m3
<b>Output Group</b>	Passed	<b>Sensor Data</b>	
<b>Configuration</b>	Passed	<b>Coil Current</b>	179.9 mA
		<b>Coil Inductance</b>	218.5 mH
		<b>Coil Inductance Shift</b>	-0.4%
		<b>Coil / Loop Resistance</b>	38.3 ohm
<b>Sensor Information</b>		<b>Transmitter Data</b>	
<b>Q3</b>	69.44 l/s	<b>Tx Gain - Adjustment</b>	0.3%
<b>Calibration Accuracy</b>	OIML Class 2	<b>VeriMaster Information</b>	
<b>Sensor Calibration Factors</b>	87.0%; 0.00 mm/s; 11	<b>Version</b>	01.00.03
<b>Date of Manufacture</b>	17 May 2014	<b>Limit Version</b>	01.00.01
<b>Run Hours</b>	3828days 14hrs 55mins	<b>Pulse Output</b>	
<b>Transmitter Information</b>		<b>Output 1: 1200.0Hz</b>	Not tested
<b>Application Version</b>	V01.05.00 12/07/12	<b>Output 1: 600.0Hz</b>	Not tested
<b>MSP Version</b>	00.00.04	<b>Output 2: 1200.0Hz</b>	Not tested
<b>Date of Manufacture</b>	17 May 2014	<b>Output 2: 600.0Hz</b>	Not tested
<b>Run Hours</b>	5443days 13hrs 29mins		
<b>Current Output</b>			
<b>4mA Value</b>	Pass : 4.000 mA ; 0.00%		
<b>12mA Value</b>	Pass : 11.980 mA ; 0.17%		
<b>20mA Value</b>	Pass : 20.004 mA ; -0.02%		

Installation Comments / Equipment used:	Configuration Settings
	<b>Mains Frequency</b> 60 Hz
	<b>Qmax</b> 10.00 l/s
	<b>Pulses/Unit</b> 120.000000
	<b>Pulses Limit Frequency</b> 1200.0 Hz
	<b>Sensor User Span/Zero</b> 100.0%; 0.00 mm/s
	<b>User Flow Cutoff/Hysteresis</b> 3.00%; 20%
	<b>Meter Mode</b> Normal operation

Date Tue, Jun 17, 2025

Operator Signature

Print

#### ABB Instrumentation World Flow Technology

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## VeriMaster - Flow Meter Verification Report

Customer Information		Meter Information	
<b>Customer</b>	OCWA	<b>Meter Owner</b>	Kings Bay WW
<b>Verification Download</b>	Tue, Jun 17, 2025	<b>Meter Type</b>	WaterMaster
		<b>Sensor Size</b>	DN100
		<b>Pipe Status</b>	Fluid Present
		<b>Sensor Type</b>	Fullbore
		<b>Sensor Serial No</b>	3K620000168466
		<b>Transmitter Serial No</b>	3K620000164062
		<b>Tag</b>	ABB Warminster
		<b>Location</b>	?

### Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/-1% of its original factory calibration

Summary of Results		Verification History	
<b>Coil Group</b>	Passed	<b>OIML Accuracy Alarms</b>	0
<b>Electrode Group</b>	Passed	<b>Totaliser Information</b>	
<b>Sensor Group</b>	Passed	<b>Forward</b>	46651.29 m3
<b>Transmitter Signal</b>	Passed	<b>Reverse</b>	73.93 m3
<b>Transmitter Driver</b>	Passed	<b>Net</b>	46577.36 m3
<b>Output Group</b>	Passed	<b>Sensor Data</b>	
<b>Configuration</b>	Passed	<b>Coil Current</b>	179.9 mA
		<b>Coil Inductance</b>	219.5 mH
		<b>Coil Inductance Shift</b>	0.8%
		<b>Coil / Loop Resistance</b>	38.8 ohm
<b>Sensor Information</b>		<b>Transmitter Data</b>	
<b>Q3</b>	69.44 l/s	<b>Tx Gain - Adjustment</b>	0.4%
<b>Calibration Accuracy</b>	OIML Class 2	<b>VeriMaster Information</b>	
<b>Sensor Calibration Factors</b>	85.4%; 0.00 mm/s; 11	<b>Version</b>	01.00.03
<b>Date of Manufacture</b>	11 Apr 2014	<b>Limit Version</b>	01.00.01
<b>Run Hours</b>	3828days 15hrs 0mins	<b>Pulse Output</b>	
<b>Transmitter Information</b>		<b>Output 1: 1200.0Hz</b>	Not tested
<b>Application Version</b>	V01.05.00 12/07/12	<b>Output 1: 600.0Hz</b>	Not tested
<b>MSP Version</b>	00.00.04	<b>Output 2: 1200.0Hz</b>	Not tested
<b>Date of Manufacture</b>	11 Apr 2014	<b>Output 2: 600.0Hz</b>	Not tested
<b>Run Hours</b>	5045days 8hrs 39mins		
<b>Current Output</b>			
<b>4mA Value</b>	Pass : 4.000 mA ; 0.00%		
<b>12mA Value</b>	Pass : 11.980 mA ; 0.17%		
<b>20mA Value</b>	Pass : 20.000 mA ; 0.00%		

Installation Comments / Equipment used:	Configuration Settings
P3 Pass	<b>Mains Frequency</b>   60 Hz
	<b>Qmax</b>   10.00 l/s
	<b>Pulses/Unit</b>   120.000000
	<b>Pulses Limit Frequency</b>   1200.0 Hz
	<b>Sensor User Span/Zero</b>   100.0%; 0.00 mm/s
	<b>User Flow Cutoff/Hysteresis</b>   3.00%; 20%
	<b>Meter Mode</b>   Normal operation

Date Tue, Jun 17, 2025

Operator Signature

Print

### ABB Instrumentation World Flow Technology

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## VeriMaster - Flow Meter Verification Report

Customer Information		Meter Information	
<b>Customer</b>	OCWA	<b>Meter Owner</b>	Kings Bay WW
<b>Verification Download</b>	Tue, Jun 17, 2025	<b>Meter Type</b>	WaterMaster
		<b>Sensor Size</b>	DN100
		<b>Pipe Status</b>	Fluid Present
		<b>Sensor Type</b>	Fullbore
		<b>Sensor Serial No</b>	3K620000168464
		<b>Transmitter Serial No</b>	3K620000168465
		<b>Tag</b>	ABB Warminster
		<b>Location</b>	?

### Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/-1% of its original factory calibration

Summary of Results		Verification History	
<b>Coil Group</b>	Passed	<b>OIML Accuracy Alarms</b>	0
<b>Electrode Group</b>	Passed	<b>Totaliser Information</b>	
<b>Sensor Group</b>	Passed	<b>Forward</b>	31331.64 m3
<b>Transmitter Signal</b>	Passed	<b>Reverse</b>	742.05 m3
<b>Transmitter Driver</b>	Passed	<b>Net</b>	30589.59 m3
<b>Output Group</b>	Passed	<b>Sensor Data</b>	
<b>Configuration</b>	Passed	<b>Coil Current</b>	179.9 mA
		<b>Coil Inductance</b>	218.5 mH
		<b>Coil Inductance Shift</b>	-0.1%
		<b>Coil / Loop Resistance</b>	38.5 ohm
<b>Sensor Information</b>		<b>Transmitter Data</b>	
<b>Q3</b>	69.44 l/s	<b>Tx Gain - Adjustment</b>	0.0%
<b>Calibration Accuracy</b>	OIML Class 2	<b>VeriMaster Information</b>	
<b>Sensor Calibration Factors</b>	86.0%; -3.00 mm/s; 11	<b>Version</b>	01.00.03
<b>Date of Manufacture</b>	16 May 2014	<b>Limit Version</b>	01.00.01
<b>Run Hours</b>	3828days 12hrs 55mins	<b>Pulse Output</b>	
<b>Transmitter Information</b>		<b>Output 1: 100.0Hz</b>	Not tested
<b>Application Version</b>	V01.05.00 12/07/12	<b>Output 1: 50.0Hz</b>	Not tested
<b>MSP Version</b>	00.00.04	<b>Output 2: 250Hz</b>	Not available for testing
<b>Date of Manufacture</b>	16 May 2014	<b>Output 2: 125Hz</b>	Not available for testing
<b>Run Hours</b>	5323days 20hrs 11mins		
<b>Current Output</b>			
<b>4mA Value</b>	Pass : 4.000 mA ; 0.00%		
<b>12mA Value</b>	Pass : 11.980 mA ; 0.17%		
<b>20mA Value</b>	Pass : 19.988 mA ; 0.06%		

Installation Comments / Equipment used:	Configuration Settings
P4 Pass	<b>Mains Frequency</b>   60 Hz
	<b>Qmax</b>   10.00 l/s
	<b>Pulses/Unit</b>   120.000000
	<b>Pulses Limit Frequency</b>   100.0 Hz
	<b>Sensor User Span/Zero</b>   100.0%; 0.00 mm/s
	<b>User Flow Cutoff/Hysteresis</b>   1.00%; 20%
	<b>Meter Mode</b>   Normal operation

Date Tue, Jun 17, 2025

Operator Signature

Print

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**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix VII:**  
**Coagulant Used**

**Customized Monthly**  
 From 01/01/2025 to  
 12/31/2025

Facility Name:  
 KING'S BAY  
 WASTEWATER  
 TREATMENT



Chem	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025	2025			
													Total	Avg	Max	Min
Coagulant Used RBC1 - kg																
IH Edited Count	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			
IH Month.Max	4.09	6.50	4.55	6.89	4.11	3.90	4.11	6.10	4.03	4.55	4.58	4.43			6.89	
IH Month.Mean	3.71	3.88	3.73	4.17	3.76	3.70	3.78	5.74	3.74	3.74	3.75	3.76			3.96	
IH Month.Min	2.03	3.25	3.25	3.65	3.25	3.40	3.25	5.30	3.25	3.08	3.08	3.05				2.03
IH Month.Total	115.14	108.60	115.77	125.15	116.55	110.86	117.05	177.99	112.19	116.03	112.36	116.59	1444.28			
Coagulant Used RBC2 - kg																
IH Edited Count	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			
IH Month.Max	4.23	4.55	4.55	6.89	4.55	3.90	4.11	3.98	4.14	4.55	4.69	4.43			6.89	
IH Month.Mean	3.70	3.60	3.75	4.17	3.78	3.71	3.78	3.70	3.73	3.75	3.74	3.74			3.76	
IH Month.Min	3.08	0.00	3.25	3.65	3.40	3.46	3.25	3.40	3.23	3.12	3.03	3.15				0.00
IH Month.Total	114.79	100.86	116.40	125.15	117.17	111.40	117.05	114.79	111.94	116.13	112.21	115.93	1373.82			



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix VIII:**  
**Biosolids Summary**



**Customized Monthly Report**    Facility Name: KING'S BAY  
 WASTEWATER  
 From 01/01/2025 to 12/31/2025    TREATMENT FACILITY

Bslq	2025												Total			
	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025				
Hauled Vol. - m <sup>3</sup>																
IH Month.Total	31.20	29.53	0.00	30.00	0.00	0.00	30.00	0.00	0.00	0.00	65.10	0.00	0.00	0.00	185.83	



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Appendix IX:**  
**Bypass/Overflow**  
**Quarterly Reports**



May 15, 2025

Brad Jackson  
Water Compliance Supervisor (A)  
Peterborough District Office  
Ministry of the Environment, Conservation and Parks  
300 Water Street, 2<sup>nd</sup> Floor, South Tower  
Peterborough, ON  
K9J 8M5

Dear Mr. Jackson:

**Re: King's Bay WPCP 2025 Q1 Bypass and Plant Overflow Event Report**

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

- (a) the date of the Event(s);
- (b) the measured or estimated volume of the Event(s);
- (c) the duration of the Event(s);
- (d) the location of the Event(s);
- (e) the reason for the Event(s); and
- (f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the first quarter of 2025 (January, February, and March).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.  
Process & Compliance Technician  
Ontario Clean Water Agency  
Kawartha Trent Regional Hub – South Cluster  
(705) 731-7507

CC: Pat Lucas, OCWA – Senior Operations Manager (A)  
Allison McCann, OCWA – SPC Manager  
Lynette Nicholson, OCWA – General Manager  
Karen Lorente, OCWA – Regional Hub Manager  
Amber Hayter, City of Kawartha Lakes – Manager  
Michelle Flaherty, City of Kawartha Lakes – Contract Coordinator  
Courtney Redmond, MECP – Peterborough District Office – Manager (A)



July 18, 2025

Rebecca Troan  
Water Compliance Supervisor (A)  
Peterborough District Office  
Ministry of the Environment, Conservation and Parks  
300 Water Street, 2<sup>nd</sup> Floor, South Tower  
Peterborough, ON  
K9J 8M5

Dear Ms. Troan:

**Re: King's Bay WPCP 2025 Q2 Bypass and Plant Overflow Event Report**

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

- (a) the date of the Event(s);
- (b) the measured or estimated volume of the Event(s);
- (c) the duration of the Event(s);
- (d) the location of the Event(s);
- (e) the reason for the Event(s); and
- (f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the second quarter of 2025 (April, May, and June).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.  
Process & Compliance Technician  
Ontario Clean Water Agency  
Kawartha Trent Regional Hub – South Cluster  
(705) 731-7507

CC: Pat Lucas, OCWA – Senior Operations Manager (A)  
Allison McCann, OCWA – SPC Manager  
Lynette Nicholson, OCWA – General Manager  
Karen Lorente, OCWA – Regional Hub Manager  
Amber Hayter, City of Kawartha Lakes – Manager  
Michelle Flaherty, City of Kawartha Lakes – Contract Coordinator  
David Bradley, MECP – Peterborough District Office – Manager



November 14, 2025

Brittney Wielgos  
Water Compliance Supervisor  
Peterborough District Office  
Ministry of the Environment, Conservation and Parks  
300 Water Street, 2<sup>nd</sup> Floor, South Tower  
Peterborough, ON  
K9J 8M5

Dear Ms. Wielgos:

**Re: King's Bay WPCP 2025 Q3 Bypass and Plant Overflow Event Report**

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

- (a) the date of the Event(s);
- (b) the measured or estimated volume of the Event(s);
- (c) the duration of the Event(s);
- (d) the location of the Event(s);
- (e) the reason for the Event(s); and
- (f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the third quarter of 2025 (July, August, and September).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.  
Process & Compliance Technician  
Ontario Clean Water Agency  
Kawartha Trent Regional Hub – South Cluster  
(705) 731-7507

CC: Katie Campbell, OCWA – Senior Operations Manager (A)  
Allison McCann, OCWA – SPC Manager  
Lynette Nicholson, OCWA – General Manager  
Karen Lorente, OCWA – Regional Hub Manager  
Amber Hayter, City of Kawartha Lakes – Manager  
Michelle Flaherty, City of Kawartha Lakes – Contract Coordinator  
David Bradley, MECP – Peterborough District Office – Manager



February 13, 2026

Brittney Wielgos  
Water Compliance Supervisor  
Peterborough District Office  
Ministry of the Environment, Conservation and Parks  
300 Water Street, 2<sup>nd</sup> Floor, South Tower  
Peterborough, ON  
K9J 8M5

Dear Ms. Wielgos:

**Re: King's Bay WPCP 2025 Q4 Bypass and Plant Overflow Event Report**

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

- (a) the date of the Event(s);
- (b) the measured or estimated volume of the Event(s);
- (c) the duration of the Event(s);
- (d) the location of the Event(s);
- (e) the reason for the Event(s); and
- (f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the fourth quarter of 2025 (October, November, and December).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.  
Process & Compliance Technician  
Ontario Clean Water Agency  
Kawartha Trent Regional Hub – South Cluster  
(705) 731-7507

CC: Katie Campbell, OCWA – Senior Operations Manager (A)  
Allison McCann, OCWA – SPC Manager  
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Karen Lorente, OCWA – Regional Hub Manager  
Amber Hayter, City of Kawartha Lakes – Manager  
Michelle Flaherty, City of Kawartha Lakes – Contract Coordinator  
Courtney Redmond, MECP – Peterborough District Office – Manager