



MUNICIPALITY OF

**PORT HOPE**

ENVIRONMENTAL SERVICES

# Wastewater Treatment Plant



2024 Annual  
Performance  
Report





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March 4, 2025

Municipality of Port Hope  
56 Queen Street  
Port Hope, ON  
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Re: 2024 Annual Performance Report - Port Hope Wastewater Treatment Plant

Dear Ms. Tonia Bennett,

We are pleased to provide the 2024 Annual Performance Report for the Municipality of Port Hope's **Wastewater Treatment Plant**, located at 100 Lake Street, Port Hope, Ontario. This report has been completed in accordance with the Environmental Compliance Approval #8519-BKNN7C, Section 11 (4), dated March 26, 2020, and issued to The Corporation of the Municipality of Port Hope.

The report covers the period from January 1, 2024, to December 31, 2024.

Sincerely,

Kevin Yule  
Manager, Wastewater  
Municipality of Port Hope

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## Executive Summary

The Port Hope Wastewater Treatment Plant (WWTP) is located at 100 Lake Street, in the Municipality of Port Hope, and services the community of Port Hope with a population of approximately 17,300. The facility is owned and operated by the Municipality of Port Hope in accordance with Environmental Compliance Approval (ECA) # 8519-BKNN7C, issued March 26, 2020. The WWTP is a Class III Wastewater Treatment Plant and has a rated capacity of 11,300 m<sup>3</sup>/day.

The facility is described as an extended aeration activated sludge treatment plant with aerobic digestion. The facility is equipped with a septage receiving station, which receives raw sewage and septic waste from hauler trucks. The headworks equipment provides for screening and grit removal and is present to protect the mechanical equipment downstream from damage by removing solid particles contained in the raw sewage as well as providing preliminary treatment. By gravity, the screened and dewatered wastewater, from the headworks, flows into three (3) aeration tanks, on a flow displacement basis. The mixed liquor from the aeration tanks flows into the three (3) rectangular secondary clarifiers, on a flow displacement basis. In the clarifiers, the solids are settled to the bottom of the tank and the clarified liquid at the top of the tank overflows into several rectangular weirs located at the discharge end of the clarifiers. This clarified liquid (secondary effluent) is then conveyed to the chlorine contact tanks for disinfection. Final effluent is then dechlorinated with sodium bisulphite, prior to being discharged to Lake Ontario.

During the Reporting Period (January 1<sup>st</sup> - December 31<sup>st</sup>, 2024), no bypass or overflow events occurred, and no customer complaints were reported for the WWTP. No reportable incidents (see Table G and Table L below for more details), involving a spill, were observed during the Reporting Period.

No MECP inspection occurred during the Reporting Period.

## 2024 Annual Performance Report – Wastewater Treatment Plant

In accordance with the ECA #8519-BKNN7C, Section 11 (4) - REPORTING, the Municipality of Port Hope, as the Owner of the Port Hope Wastewater Treatment Plant, shall prepare a performance report on a calendar year basis and submit to the MECP by March 31 of the calendar year following the period being reported upon.

Section 11(4) - REPORTING requires the Performance Report to contain the following:

- (a) a summary and interpretation of all Influent, monitoring data, and a review of the historical trend of the sewage characteristics and flow rates.
- (b) a summary and interpretation of all final effluent monitoring data, including concentration, flow rates, and a comparison to the design objectives and compliance limits, including an overview of the success and adequacy of the Works.
- (c) a summary of all operating issues encountered, and corrective actions taken.

- (d) a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus, or mechanism forming part of the Works.
- (e) a summary of any effluent quality assurance or control measures undertaken.
- (f) a summary of the calibration and maintenance carried out on all influent, imported sewage and final effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in the ECA or recommended by the manufacturer.
- (g) a summary of efforts made to achieve the design objectives, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:
  - i. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of final effluent quality,
  - ii. when the annual average daily influent flow reaches 80% of the rated capacity.
- (h) a tabulation of the volume of sludge generated, 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,
- (i) a summary of any complaints received, and any steps taken to address the complaints,
- (j) a summary of all bypasses, overflows, other situations outside normal operating conditions and spills within the meaning of Part X of EPA and abnormal discharge events,
- (k) a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a report on status of implementation of all modification,
- (l) a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall by-pass/overflow elimination including expenditures and proposed projects to eliminate by-pass/overflows with estimated budget forecast for the year following that for which the report is submitted, and
- (m) a summary of maintenance, inspections, and monitoring details.

The following report was generated from the records maintained by the Municipality of Port Hope for the Port Hope Wastewater Treatment Plant for the calendar year 2024:

### **(a) Influent and Imported Sewage Monitoring Program Summary**

The following Tables A, B and C, list a summary of influent and imported sewage (septage receiving) monitoring data, including current and historic sewage characteristics and flows.

**Table A - Summary of Monthly Average Influent Concentrations**

	Biochemical Oxygen Demand (BOD <sup>5</sup> ) (mg/L)	Total Suspended Solids (TSS) (mg/L)	Total Phosphorus (TP) (mg/L)	Total Kjeldahl Nitrogen (TKN) (as N mg/L)
January	264	253	3.3	27.68
February	205	220	3.1	27.30
March	191	190	2.4	22.25
April	174	184	2.3	21.30
May	284	266	2.9	24.10
June	351	391	4.2	33.00
July	268	338	4.3	31.86
August	274	237	3.9	29.95
September	249	246	3.6	28.60
October	171	110	3.5	31.00
November	303	246	4.4	33.75
December	275	186	3.2	28.44
<b>Average</b>	<b>251</b>	<b>239</b>	<b>3.4</b>	<b>28.27</b>
<b>3-year Average</b>	<b>223</b>	<b>249</b>	<b>3.3</b>	<b>27.04</b>
<b>5-year Average</b>	<b>215</b>	<b>241</b>	<b>3.0</b>	<b>25.71</b>

**Table B – Summary of Influent Flows**

	Monthly Total Flow (m <sup>3</sup> )	Average Daily Influent Flow (m <sup>3</sup> /day)	Max Daily Influent Flow (m <sup>3</sup> /day)
January	176,061	5,679	9,999
February	141,101	4,877	6,264
March	174,816	5,639	7,701
April	234,972	7,826	16,132
May	156,784	5,058	5,838
June	133,656	4,455	6,483
July	151,314	4,881	10,047
August	127,164	4,102	4,995
September	121,361	4,045	6,256
October	114,743	3,701	4,347
November	102,730	3,424	3,995
December	132,872	4,286	8,011

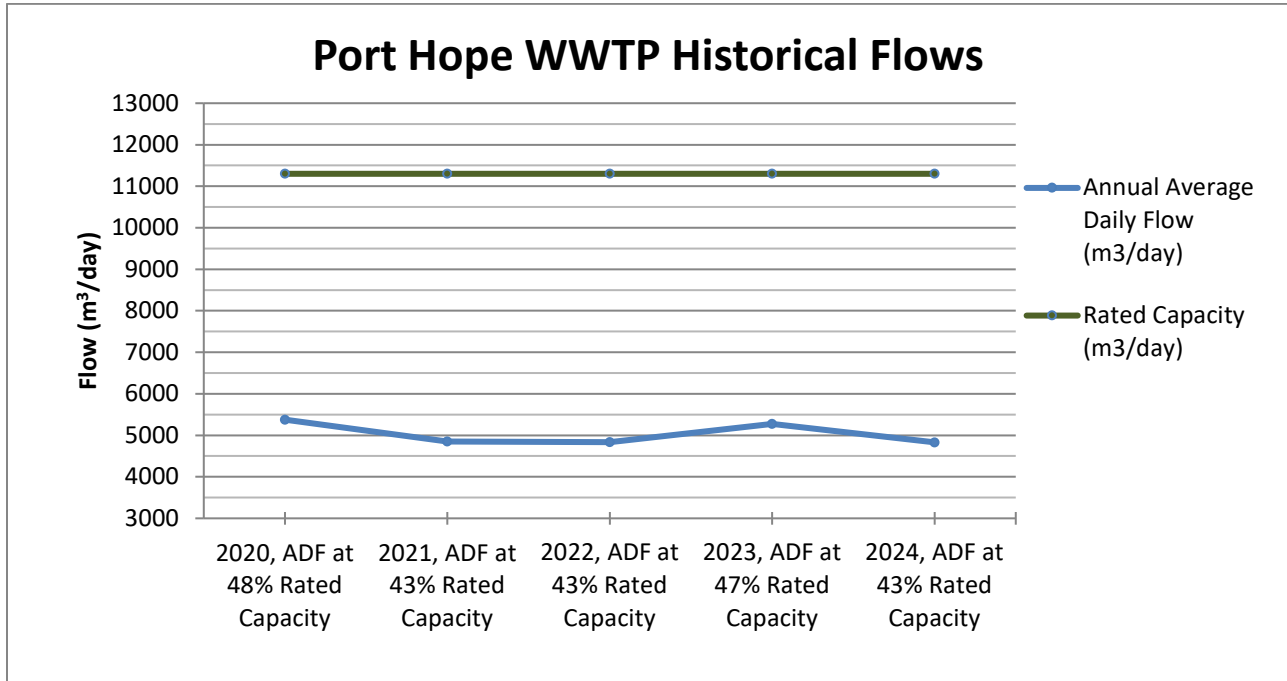
**2024 Total Influent Flow = 1,767,574 m<sup>3</sup>/year**

**2024 Annual Average Daily Influent Flow (ADF) = 4,831 m<sup>3</sup>/day**

**2024 Maximum Daily Influent Flow = 16,132 m<sup>3</sup>/day**

On average, the facility operates at 43% of Rated Capacity throughout Reporting Period.

**Figure 1 - Historical Flow Comparison**



**Rated Capacity of Port Hope Wastewater Treatment Plant = 11,300 m<sup>3</sup>/day**  
**3-year Average Daily Flow = 4.978 m<sup>3</sup>/day (44% of Rated Capacity)**  
**5-year Average Daily Flow = 5,032 m<sup>3</sup>/day (45% of Rated Capacity)**

**Table C - Imported Sewage (Septage Receiving) Monitoring Data**

	Total Volume (m <sup>3</sup> )	Monthly Average BOD <sup>5</sup> (mg/L)	Monthly Average TSS (mg/L)	Monthly Average TP (mg/L)	Monthly Average TKN (as N mg/L)
January	433	1230	1950	31.6	474
February	415	3260	22200	125	186
March	663	2180	3000	68.7	539
April	635	831	371	18	97
May	1200	3760	16800	54	328
June	1012	8330	19900	157	806
July	1175	639	1200	18	192
August	694	5530	10900	101	549
September	1039	6170	12200	253	1070
October	987	706	15900	32	193
November	1056	1450	6130	74	439



	Total Volume (m <sup>3</sup> )	Monthly Average BOD <sup>5</sup> (mg/L)	Monthly Average TSS (mg/L)	Monthly Average TP (mg/L)	Monthly Average TKN (as N mg/L)
December	938	3400	17400	92	564
<b>Total</b>	<b>10249</b>				
<b>Average</b>	<b>854</b>	<b>3124</b>	<b>10663</b>	<b>85</b>	<b>453</b>
<b>3-year Average</b>	<b>9545</b>	<b>2639</b>	<b>11012</b>	<b>84</b>	<b>402</b>
<b>5-year Average</b>	<b>9724</b>	<b>2441</b>	<b>7921</b>	<b>69</b>	<b>339</b>

**(b) Final Effluent Monitoring Program Summary**

The following Tables D, E, and F list a summary of final effluent concentration results in comparison to final effluent objectives and limits as per Schedule B and Schedule C, a tabulation of un-ionized ammonia monthly average calculations, and a performance assessment of raw influent - final effluent removal efficiencies.

Effluent grab samples are collected and analyzed for acute lethality to rainbow trout and daphnia magna. With approval from the MECP, as per Condition 5, monitoring frequency in respect of acute lethality to rainbow trout and daphnia magna can be reduced to annually, if desired. In 2024, semi-annual grab samples were collected and analyzed. Both samples resulted in a 0% mortality rate for both rainbow trout and daphnia magna.

In determining compliance with total chlorine residual limits the following data is analyzed: DPD colorimeter grab sample results.

**Table D - Summary of Monthly Final Effluent Concentrations**

	Carbonaceous Biochemical Oxygen Demand (CBOD <sup>5</sup> ) (mg/L)	TSS (mg/L)	TP (mg/L)	Geometric Mean Density of E. Coli (cfu/100ml)	Monthly MIN pH	Monthly MAX pH	Total Ammonia Nitrogen <sup>1</sup> (TAN) (mg/L)	Calculated Monthly Average Unionized Ammonia (mg/L)	Maximum Total Chlorine Residual (mg/L)
<b>Design Objective</b>	<b>15.0</b>	<b>15.0</b>	<b>0.8</b>	<b>100</b>			MAY 1 to NOV 30: 6.0 DEC 1 to APR 30: 12.0	<b>20</b>	<b>Non-Detectable</b>
<b>Compliance Limit(s)</b>	<b>25.0</b>	<b>25.0</b>	<b>1.0</b>	<b>200</b>	<b>6.0-9.5</b>	<b>6.0-9.5</b>	<b>No Limit</b>	<b>No Limit</b>	<b>&gt;0.02</b>
January	2.8	7.2	0.2	3	6.40	7.30	0.10	0.09	0.02
February	3.0	7.5	0.3	2	6.54	7.62	0.10	0.54	0.02
March	3.5	9.3	0.3	2	6.47	7.60	0.10	0.07	0.02
April	2.6	10.2	0.3	4	6.75	7.46	0.10	0.31	0.02
May	3.0	14.0	0.5	3	6.09	7.29	0.10	0.14	0.02
June	2.3	9.5	0.3	5	6.06	7.14	0.10	0.06	0.02
July	2.6	9.0	0.3	4	6.25	7.16	0.12	0.26	0.02
August	2.0	6.3	0.2	4	6.51	7.86	0.10	1.59	0.02
September	2.0	6.5	0.2	2	6.56	7.70	0.10	0.15	0.02
October	2.0	4.0	0.1	3	6.50	7.42	0.10	0.45	0.02
November	2.0	4.3	0.1	3	6.44	7.75	0.10	0.17	0.02
December	2.2	4.6	0.1	2	6.47	7.88	0.10	0.27	0.02
<b>Average</b>	<b>2.5</b>	<b>7.7</b>	<b>0.2</b>	<b>3</b>			<b>0.10</b>	<b>0.34</b>	<b>0.02</b>
<b>Minimum</b>	<b>2.0</b>	<b>4.0</b>	<b>0.1</b>	<b>2</b>	<b>6.06</b>		<b>0.10</b>	<b>0.06</b>	
<b>Maximum</b>	<b>3.5</b>	<b>14.0</b>	<b>0.5</b>	<b>5</b>		<b>7.88</b>	<b>0.12</b>	<b>1.59</b>	<b>0.02</b>

<sup>1</sup> The results of the total ammonia concentration, pH and temperature, at the time of sampling, were used for the calculation of the un-ionized ammonia.

**Table E - Port Hope Wastewater Treatment Plant Performance Assessment**

	BOD <sup>5</sup> Influent (mg/L)	CBOD <sup>5</sup> Effluent (mg/L)	TSS Influent (mg/L)	TSS Effluent (mg/L)	TSS %Removal	TP Influent (mg/L)	TP Effluent (mg/L)	TP %Removal
January	264	2.8	253	7.2	97.2%	3.29	0.21	93.7%
February	205	3.0	220	7.5	96.6%	3.10	0.26	91.8%
March	191	3.5	190	9.3	95.1%	2.37	0.29	88.0%
April	174	2.6	184	10.2	94.5%	2.26	0.26	88.4%
May	284	3.0	266	14.0	94.7%	2.94	0.48	83.8%
June	351	2.3	391	9.5	97.6%	4.18	0.27	93.7%
July	268	2.6	338	9.0	97.3%	4.28	0.27	93.6%
August	274	2.0	237	6.3	97.4%	3.88	0.24	93.8%
September	249	2.0	246	6.5	97.4%	3.56	0.25	93.1%
October	171	2.0	110	4.0	96.4%	3.49	0.12	96.6%
November	303	2.0	246	4.3	98.3%	4.40	0.10	97.7%
December	275	2.2	186	4.6	97.5%	3.24	0.09	97.3%
<b>Average</b>	<b>250</b>	<b>2.1</b>	<b>197</b>	<b>4.8</b>	<b>96.7%</b>	<b>3.67</b>	<b>0.14</b>	<b>92.6%</b>

**Table F – Summary of Final Effluent Flows**

	Monthly Total Flow (m <sup>3</sup> )	Average Daily Final Effluent Flow (m <sup>3</sup> /day)	Max Daily Final Effluent Flow (m <sup>3</sup> /day)
January	149,895	4,835	7,948
February	101,604	3,763	5,152
March	132,826	4,285	5,768
April	165,096	5,503	13,161
May	117,139	3,779	4,191
June	100,249	3,342	4,637
July	116,035	3,868	7,984
August	107,699	3,474	4,082
September	105,614	3,520	5,354
October	100,480	3,241	3,780
November	100,489	3,350	3,859
December	128,099	4,132	6,864

**2024 Total Final Effluent Flow = 1,425,226 m<sup>3</sup>/year**

**(c) Operating Problems and Corrective Actions**

**Table G - Summary of Operating Problems Encountered and Corrective Actions Taken**

The number of operating problems occurring during the reporting period equals two (2). If applicable, operating problems are itemized below with corresponding steps taken to address them.

Date	Operating Problem	Corrective Action Taken
May 28, 2024	Back-up generator failed on power transfer test.	Routine power transfer test caused backup power generator to fail. A new UPS battery was sourced and installed on May 31, 2024.
December 18-19, 2024	Higher than normal sludge blankets in clarifier #3.	Operators discovered higher than normal sludge blankets in clarifier #3 while performing routine measurements. A problem occurred with the switching of the return-activated sludge (RAS) pumps after a pump was re-installed after repair. Operators adjusted gates and valves and changed the duty on the various RAS pumps to ensure the proper amount of sludge was being pumped. The sludge depths then returned to normal operating levels.

#### **(d) Summary of Major Maintenance Activities**

The Municipality maintains an active maintenance management program, for general maintenance and repair, to ensure that the facilities are maintained in a fit state of repair. In addition to this program, major works were upgraded or replaced as follows.

1. January 17, 2024 - RAS pump #2 major maintenance and repair.
2. May 2, 2024 - Aeration tank #1 major maintenance and repair.
3. May 21, 2024 - Aeration tank #1 anoxic zone major maintenance and repair.
4. May 27, 2024 - Centrifuge polymer pump major maintenance and repair.
5. June 13, 2024 - RAS pump #1 major maintenance and repair.
6. June 20, 2024 - Administrative building 2<sup>nd</sup> floor HVAC replacement.
7. July 31, 2024 - Clarifier #1 full parts and accessories replacement.
8. August 14, 2024 - Aeration #2 major maintenance and repair.
9. August 21, 2024 - RAS pump # 1 major maintenance and repair.
10. October 9, 2024 – Septic receiving system actuator replacement.
11. October 15, 2024 - Post de-chlorination oxidation-reduction potential (ORP) probe major maintenance and repair.
12. November 15, 2024 - Plant yard-hydrant replacement.
13. December 16, 2024 - Digester transfer pump major maintenance and repair.
14. December 5, 2024 - Plant generator major maintenance and repair.
15. December 10, 2024 - Plant SCADA system major maintenance and repairs.
16. December 16, 2024 - RAS pump #4 major maintenance and repairs.

All maintenance was performed on behalf of the Owner, by licenced Operators or qualified contracted services providers who exercise due diligence in ensuring the Works and the related equipment are properly operated and maintained to achieve compliance with the Approval. Daily rounds of the WWTP and pumping stations are conducted by the Operators and any observations are being recorded.

#### **(e) Effluent Quality Assurance/Control Measures**

Final effluent quality assurance is maintained by utilizing accredited laboratories (SGS Environmental Services and Nautilus Environmental) for analysis of all final effluent parameters. Sampling requirements are issued to plant personnel that denote required parameters and frequency of sampling. A spreadsheet is used to track in-house lab results to perform several calculations used to monitor and measure the effectiveness of the plant performance.



**(f) Calibration and Maintenance on Monitoring Equipment**

Calibration of the flow meters, lab equipment and analyzers were conducted as per regular annual maintenance. Cleaning of effluent monitoring equipment is performed on a regular routine basis. Accuracy of effluent monitoring equipment operation was confirmed by onsite lab effluent samples analysis and offsite third-party accredited laboratory analysis.

**Table H - Summary of Calibration and Maintenance of Monitoring Equipment**

<b>Analyzer</b>	<b>Location</b>	<b>Date Calibrated/Service</b>	<b>Calibrated/Service by Whom</b>
Influent flow meter – vortex #1	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Influent flow meter – vortex #2	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Septage flow meter	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Bypass flow meter	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Centrifuge	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
RAS to aeration flow meter	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Polymer	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
WAS to aeration flow meter	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Final effluent flow meter	WWTP	June 7, 2024	Tower Electronics Canada Inc., Dan Matchett
Gas detector	WWTP	October 16, 2024	Franklin Empire, Mitch Manley
Dissolved oxygen (DO)	WWTP	May 15, 2024	Cancoppas, James Griffin
Lab equipment, portable pH, turbidimeter, spectrophotometer, colorimeter, portable DO	WWTP	June 3, 2024	Nichol Water Services, Randy Nichol
ORPs – pre and post dechlorination	WWTP	October 15, 2024	Franklin Empire, Mitch Manley
Composite samplers	WWTP	July 31, 2024	Avensys Solutions, Artem Lefymenko

**(g) Summary of Efforts Made to Achieve Design Objectives**

Municipal staff put forth all efforts to operate the plant at maximum removal efficiencies and within the rated capacity of the facility. The final effluent design objectives in

Schedule B were consistently met for CBOD<sup>5</sup>, total phosphorus, e. coli, total suspended solids, total ammonia nitrogen, toxicity to rainbow trout and daphnia magna, and total residual chlorine. See Table D of this report for a summary of monthly final effluent concentrations.

No overflow or bypass events occurred within the Reporting Period and the average day influent flows were well within the rated capacity of the wastewater treatment plant. Final effluent was observed to be essentially free of floating and settable solids and did not appear to contain oil or any other substance in amounts sufficient to create a visible film or sheen or discolouration of the receiving waters.

### (h) Summary of Sludge Generation

The following Tables I, J and K list the volume of sludge generated, total suspended solids, nutrient and metal analysis. The anticipated volume for the next Reporting Period is not expected to be appreciably different from this Reporting Period. No change is expected from the current sludge handling methods, Wakely Transportation Services (C. of A. A840183) and Don Oliver’s Excavating (C. of A. A841032). The sludge disposal area utilized in 2024 was to private contractors ECA #0031-7UTRSS and ECA#5948-7JRMAJ.

**Table I - Aerobic Digested Sludge Generated**

	Volume (m <sup>3</sup> )
January	655
February	951
March	1487
April	2082
May	370
June	1836
July	1876
August	1667
September	1437
October	1864
November	1393
December	1081
<b>Total Volume</b>	<b>16699</b>
<b>Average</b>	<b>1392</b>
<b>3-year Average Total Volume</b>	<b>15472</b>
<b>5-year Average Total Volume</b>	<b>14803</b>

**Table J - Aerobic Digester Sludge Solids/Nutrient Analysis**

	Total Solids (mg/L)	Total Phosphorus (mg/L)	Ammonia + Ammonium (N) (as N mg/L)	Nitrite + Nitrates (as N) (mg/L)	TKN (as N mg/L)	E. Coli (cfu/1g dried weight)
January	19100	530	43	3	1010	29255
February	17900	570	5	53	1220	33649
March	19800	580	8	34	407	10360
April	10000	350	7	4	507	8811
May	16000	410	1	3	826	225610
June	19300	660	1	3	788	9948
July	15100	510	7	3	653	38710
August	13800	380	3	3	513	36496
September	14700	430	2	3	550	24648
October	13000	400	18	3	561	29032
November	17000	430	57	3	755	16463
December	18200	465	9	25	98	61224
<b>Average</b>	<b>16158</b>	<b>476</b>	<b>13</b>	<b>12</b>	<b>657</b>	<b>43684</b>

**Table K - Aerobic Digested Sludge Metal Analysis**

	As	Cd	Co	Cr	Cu	Hg	Mo	Ni	Pb	Se	U	Zn
January	0.1	0.021	0.04	0.37	14.0	0.017	0.19	0.29	0.6	0.1	0.4	13.0
February	0.1	0.020	0.05	0.41	15.0	0.015	0.21	0.34	0.5	0.1	0.5	13.0
March	0.1	0.016	0.04	0.35	13.0	0.014	0.17	0.29	0.4	0.1	0.5	10.0
April	0.1	0.006	0.02	0.21	5.6	0.008	0.09	0.16	0.2	0.1	0.3	4.0
May	0.1	0.009	0.03	0.33	7.6	0.010	0.11	0.21	0.3	0.1	0.4	6.0
June	0.2	0.014	0.04	0.49	12.0	0.019	0.17	0.30	0.4	0.1	0.6	10.0
July	0.1	0.017	0.03	0.39	10.0	0.011	0.13	0.26	0.3	0.1	0.5	9.0
August	0.1	0.011	0.03	0.30	7.8	0.014	0.11	0.26	0.3	0.1	0.3	9.0
September	0.1	0.017	0.04	0.40	10.0	0.011	0.13	0.31	0.5	0.1	0.4	13.0
October	0.1	0.016	0.03	0.31	9.2	0.011	0.12	0.28	0.4	0.1	0.3	11.0
November	0.1	0.016	0.03	0.36	10.0	0.010	0.16	0.34	0.4	0.1	0.3	12.0
December	0.1	0.018	0.03	0.41	11.0	0.012	0.19	0.36	0.4	0.1	0.3	12.0
<b>Average</b>	<b>0.1</b>	<b>0.015</b>	<b>0.03</b>	<b>0.36</b>	<b>10.0</b>	<b>0.013</b>	<b>0.15</b>	<b>0.28</b>	<b>0.4</b>	<b>0.1</b>	<b>0.4</b>	<b>10.2</b>

Note: As is Arsenic; Cd is Cadmium; Co is Cobalt; Cr is Chromium; Cu is Copper; Hg is Mercury; Mo is Molybdenum; Ni is Nickel; Pb is Lead; Se is Selenium; U is Uranium; Zn is Zinc. All values expressed in mg/L unless otherwise specified.

**(i) Summary of Complaints Received**

The number of complaints received during the Reporting Period, January 1-December 31, 2024, regarding the Wastewater Treatment Plant and On-site Pumping Station was zero (0).

Date of Complaint	Address	Complaint	Steps Taken to Address Complaint

**(j) Summary of all By-passes, Spills or Abnormal Discharge Events**

There were no environmental incidents, such as by-passes, spills, or abnormal discharges, to be reported for 2024.

**Table L - Incidents of By-passes, Spills or Abnormal Discharges including Maximum Sampling Results During Event, if applicable**

Date	Approx. Duration (hours)	Type of Bypass/Overflow/Spill, Abnormal Discharge Event	Volume	CBOD <sup>5</sup>	TSS	Total Cl <sub>2</sub> <sup>2</sup>	TP	E. coli (cfu/100mL)	pH (no unit)

**(k) Notice of Modifications**

The number modifications completed as a result of paragraph 1.d. of Condition 10, including a report on status of implementation of all modifications totals one (1). If applicable, completed modifications are itemized below with a corresponding status report on the implementation of each modification.

Date Initiated	Description of Modification	Status	Date Completed/Expected Completed
August 1, 2023	Installation of new influent chamber including twin 600 mm influent sewers connecting the new influent chamber to WWTP headworks and installation of 450 mm forcemain connecting to existing on-site raw sewage pumping station.	Complete	June 28, 2024

**(l) Efforts to Achieve Conformance with Procedure F-5-1 - Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works**

During the 2024 Reporting Period, there were no incidents of a bypass or overflow at the Port Hope Wastewater Treatment Plant and therefore no proposed projects to eliminate bypasses or overflows are forecasted for the 2025 Reporting Period.

**(m) Summary of Maintenance, Inspections and Monitoring Details**

No additional information to report.

No MECP Inspection occurred during the Reporting Period.

<sup>2</sup> Total Cl<sub>2</sub> is Total Chlorine Residual. All values expressed in mg/L unless otherwise specified.



**APPENDIX A –  
Copy of Notice of Modification to Sewage Works**



Ministry of the  
 Environment,  
 Conservation and  
 Parks

**Notice of Modification to Sewage Works**

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED IMPLEMENTATION DATE.

**Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility**

*(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)*

ECA Number <b>8519-BKNN7C</b>	Issuance Date (mm/dd/yy) <b>03/23/20</b>	Notice number (if applicable) <b>2023-02</b>
ECA Owner <b>The Corporation of the Municipality of Port Hope</b>		Municipality <b>Port Hope</b>

**Part 2: Description of the modifications as part of the Limited Operational Flexibility**

*(Attach a detailed description of the sewage works)*

The proposed sanitary sewer works within the limits of the facilities included under the Port Hope Wastewater Treatment Plant (WWTP) ECA include the following:

**Removals**

1. Removal of the existing inlet chamber (influent dispersion chamber) and the existing overflow diversion structure (SAN MH #376)
2. Removal of ±27.3 and ±25.0m of each of the twin 600mm dia. influent sewers located downstream of the existing inlet chamber (part way to the headworks)
3. Abandonment of ±30.2m of existing 450mm dia. forcemain between the existing on-site raw sewage pumping station and the existing inlet chamber including the removal of the existing forcemain gate valve.

**New Construction**

1. Installation of a proposed influent chamber located south of the existing inlet chamber
2. Installation of ±21.3 and ±25.5m of proposed twin 600mm dia. ductile iron influent sewers connecting the new influent chamber to the WWTP headworks via the remaining portions of the existing influent sewers
3. Installation of ±12.2m of proposed 450mm dia. forcemain connecting the existing on-site raw sewage pumping station to the proposed new influent chamber

All proposed sewage works do not change the discharge location with all flows continuing to be routed to the Port Hope WWTP headworks through connections to existing sewers and will have negligible environmental effects.

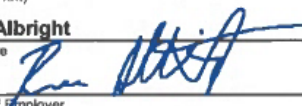
The design of the above noted works is illustrated in detail on the drawings included as part of Contract 42-ENG-2023-B Lake Street Trunk Sewer Replacement Issued and is documented in the Lake Street Sewer Replacement Design Brief prepared by CIMA+ dated March 16, 2022. The Municipality's existing Wastewater Collection System Map (Version 015) should be updated to reflect the modifications described herein and the As-Constructed drawings should be retained as part of the Municipality's records.

**Part 3 – Declaration by Professional Engineer**

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print) <b>Ron Albright</b>	PEO License Number <b>90420050</b>
Signature 	Date (mm/dd/yy) <b>07/19/23</b>
Name of Employer <b>CIMA Canada Inc. (CIMA+)</b>	

<b>Part 4 – Declaration by Owner</b>	
I hereby declare that: 1. I am authorized by the Owner to complete this Declaration; 2. The Owner consents to the modification; and 3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA. 4. The Owner has fulfilled all applicable requirements of the <i>Environmental Assessment Act</i> . I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate	
Name of Owner Representative (Print)	Owner representative's title (Print)
<b>Jeanette Davidson</b>	<b>Director, Works and Engineering</b>
Owner Representative's Signature	Date (mm/dd/yy)
<i>Jeanette Davidson</i>	08/01/23

EAPB Form July 26, 2018