Lansdowne Wastewater System

Waterworks # 110001934

Annual Report

Prepared For: Township of Leeds and the Thousand Islands

Reporting Period of January 1st – December 31st 2023

Issued: March 1st, 2024

Revision: 0

Operating Authority:

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

This report has been prepared to meet the requirements set out in:

Document	Document #	Issue Date	Issue Number
Facility ECA	3483-9Q6QAL	November 13, 2014	N/A
ECA for Municipal Sewage Collection System	262-W601	May 16,2023	1.0

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1 Revision History

Date	Rev#	Revisions	Revised By
March 1, 2024	0	Annual report issued.	PCT

2 Operations and Compliance Reliability Indices

Compliance Event	Details
Ministry of Environment Inspections	No MECP inspection in 2023.
Ministry of Labour Inspections	No MOL inspection in 2023.
Non-Compliance	1 Non-compliance reported in 2023. • Details referenced in report
Community Complaints	No community complaints reported in 2023.
Spills	No spills reported in 2023.
Overflows	No overflows reported in 2023.
Bypass	No bypasses reported in 2023.
Diversion (if applicable)	No diversions reported in 2023.

3 Process Description

Lansdowne's wastewater system was constructed in the mid-1970's and commenced operation in 1976. The system consists of approximately 5.2 kilometers of asbestos cement sewer pipe, one pumping station located on Railway Street, and a two cell facultative lagoon system with a design capacity of 336 m3/d. The sewage pumping station consists of a single wet well with a peak design flow of 30 L/s. The lagoon system is typically operated in series, with raw sewage flowing into the north cell for initial treatment and then being transferred to the south cell for polishing.

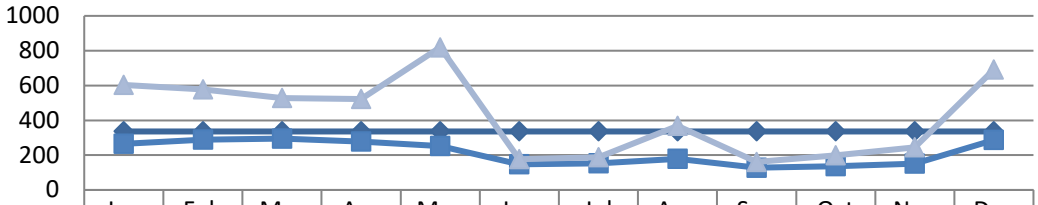
The north cell provides storage for 38,250 m3 and the south cell can store 34,500 m3. The system was originally designed for effluent to be directed to a spray irrigation facility along with an option for surface discharge. Due to the need for extensive repairs in addition to constraints placed on the system resulting from impacts on neighbouring lands, the spray irrigation system has not been in use since 2008. The current practice is to discharge effluent from the lagoons to an open ditch which flows to the La Rue Mills Creek and ultimately to the St. Lawrence River. The lagoon cells are treated with aluminum sulphate by boat to ensure the total phosphorus concentration in the effluent is less than 1.0 mg/L.

Discharges typically take place on a semi-annual basis in the spring and in the fall.

4 Treatment Flows

The hydraulic flows reaching the sewage lagoons in 2023 averaged 213 m3/day which represents 63% of the 336 m3/day design capacity.

4.1 Raw Flow (m3/d)

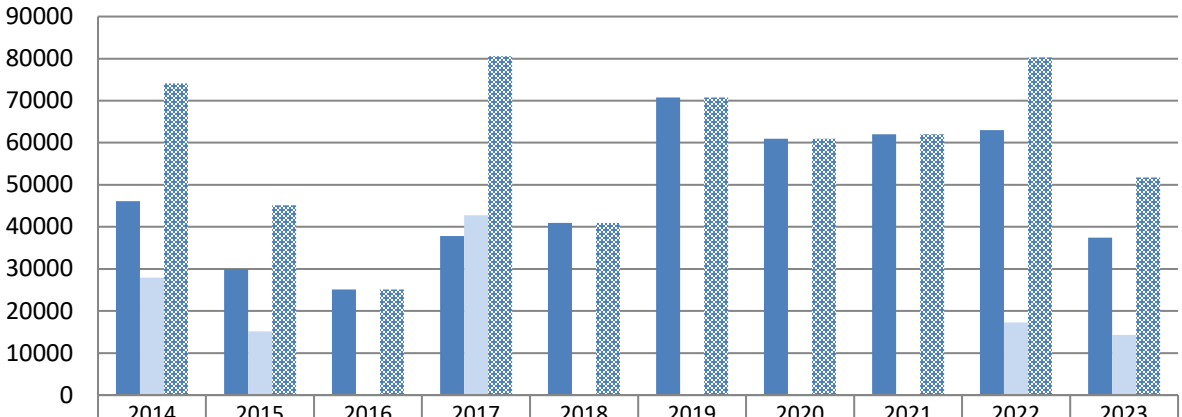


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Design Capacity	336	336	336	336	336	336	336	336	336	336	336	336
Average Daily Flow	266	288	295	277	252	147	153	179	128	136	150	287
Maximum Daily Flow	604	578	528	522	819	177	187.8	368	161	198	244	692

4.2 Discharge Flow

Discharge Period	Start Date	End Date	Volume Discharged (m3)
Spring Discharge	April 24th, 2023	May 9th, 2023	37,462
Fall Discharge	November 27th, 2023	December 1st, 2023	14,308
		Total Flow Discharged	51,770

4.3 Annual Comparison (m3)



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Spring Discharge	46129	29973	25133	37836	40970	70767	60922	61986	62991	37462
Fall Discharge	27950	15110	0	42729	0	0	0	0	17300	14308
Total Annual Flow	74079	45083	25133	80565	40970	70767	60922	61986	80291	51770

4.4 Imported Sewage

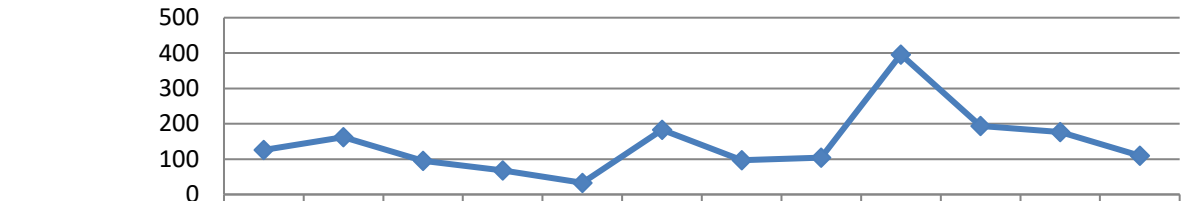
Imported sewage is not accepted at this facility.

5 Raw Sewage Quality

Current year minimum, maximum and averages are available in Appendix A – Performance Assessment Report.

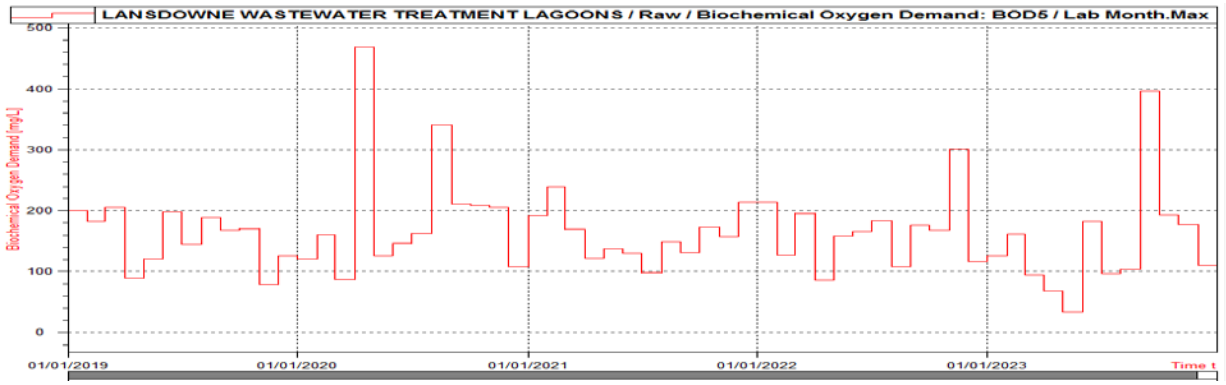
5.1 Influent Quality

5.1.1 BOD5 (mg/L)

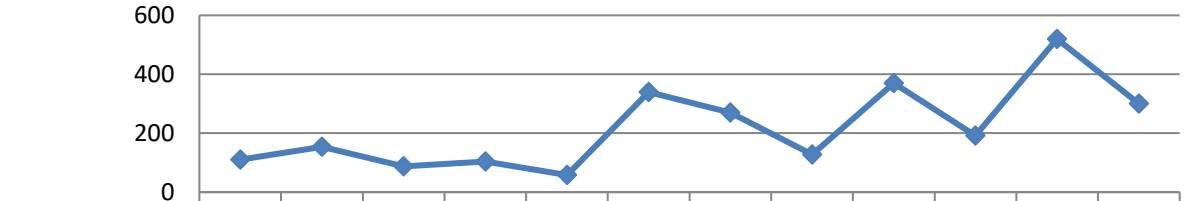


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD5 (mg/L)	126	162	95	68	33	183	97	104	396	194	177	110

5.1.2 5-year BOD5 (mg/L)

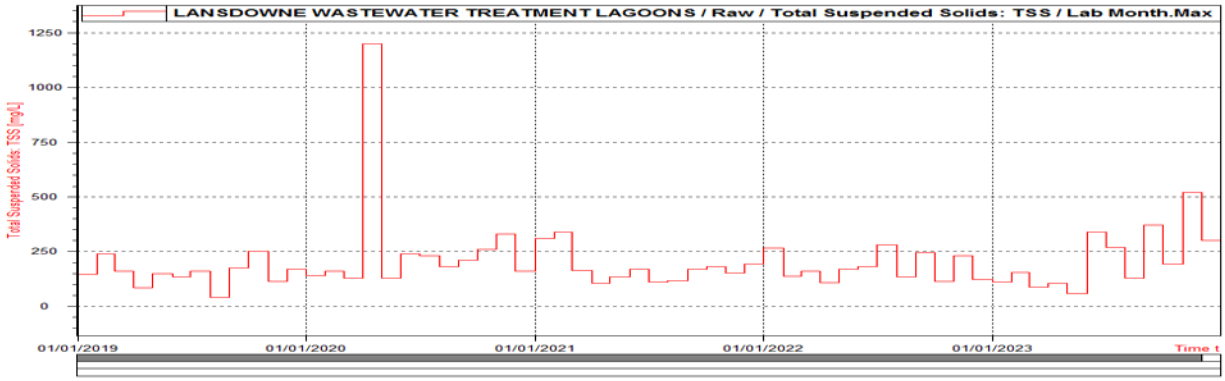


5.1.3 Total Suspended Solids (mg/L)

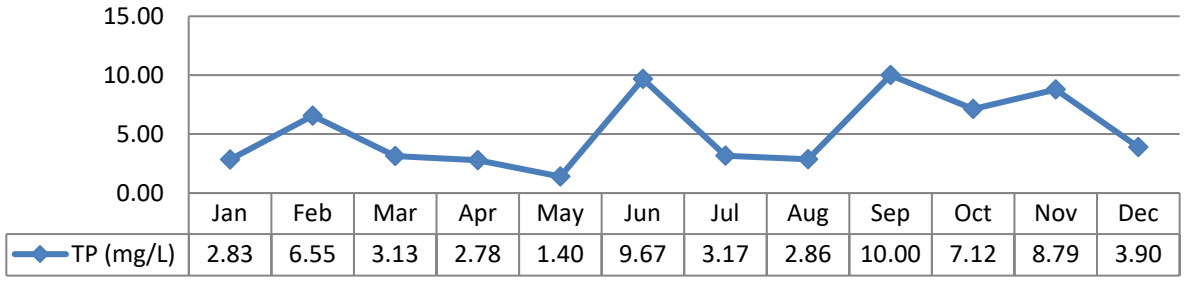


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TSS (mg/L)	110	154	88	104	58	340	270	128	370	192	520	300

5.1.4 5-year Total Suspended Solids (mg/L)

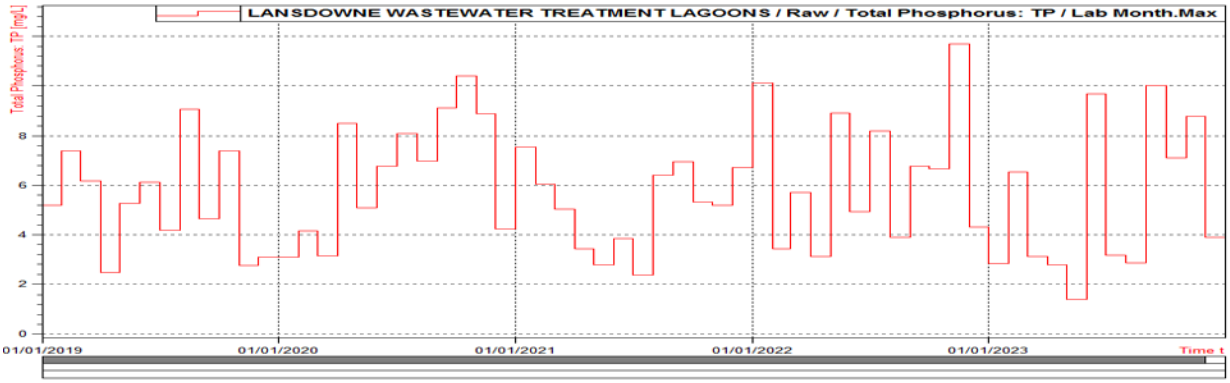


5.1.5 Total Phosphorus (mg/L)

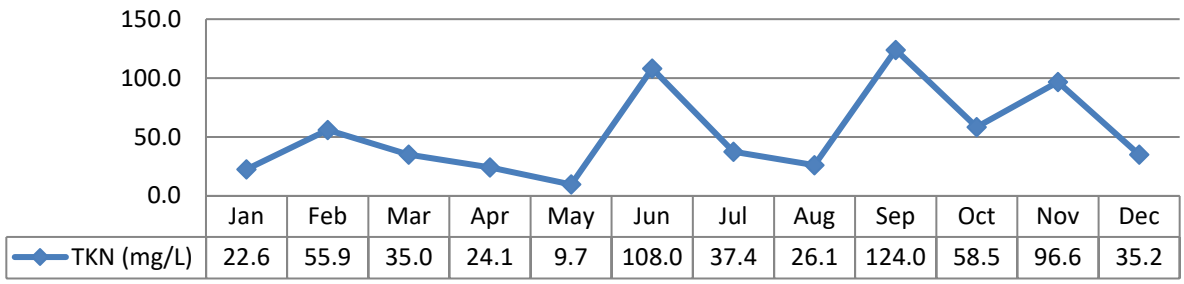


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TP (mg/L)	2.83	6.55	3.13	2.78	1.40	9.67	3.17	2.86	10.00	7.12	8.79	3.90

5.1.6 5-year Total Phosphorus (mg/L)

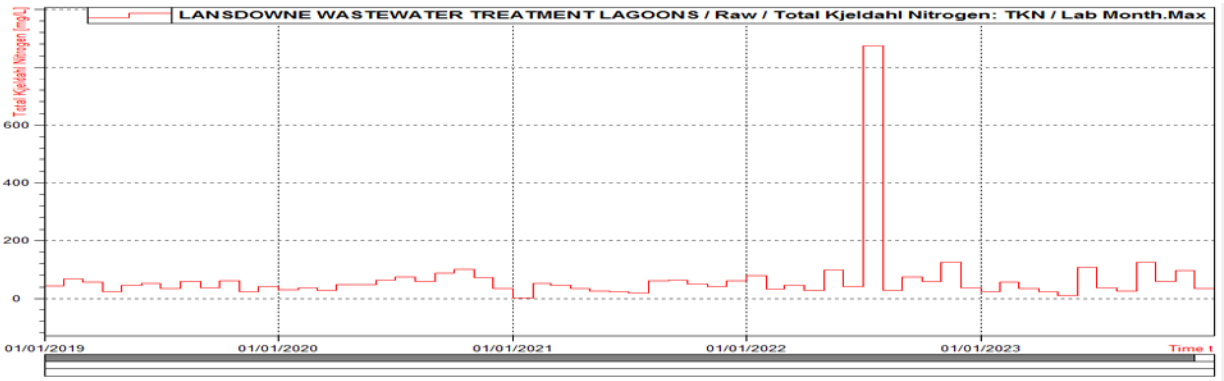


5.1.7 Total Kjeldahl Nitrogen (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TKN (mg/L)	22.6	55.9	35.0	24.1	9.7	108.0	37.4	26.1	124.0	58.5	96.6	35.2

5.1.8 5-year Total Kjeldahl Nitrogen (mg/L)



5.2 Imported Waste Quality

Imported sewage is not accepted at this facility.

6 Effluent Quality

Over the course of the spring and fall discharge season, Total Phosphorus, Total Ammonia Nitrogen and CBOD5 remained within the Compliance Limits and Objectives. The Total Suspended Solids parameter was exceeded during the fall discharge, and details are listed below.

6.1 Effluent Quality Assurance and Control Measures Taken

This system is part of OCWA's Seaway Valley Cluster. The cluster is supported by the Eastern Regional Hub, and corporate resources. Operational Services are delivered by OCWA staff that live and work in the community. The systems are operated to meet compliance with applicable regulations. The system has comprehensive manuals detailing operations, maintenance, instrumentation, and emergency procedures. All procedures are treated as active documents and are updated as required. These documents are also part of OCWA's Quality & Environmental Management System.

The process is reviewed and maintained by certified operators. These operator's complete in-house rounds and testing to monitor the process. All Sampling and analysis follow 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 final effluent samples collected during the reporting period to meet legislated sampling requirements are submitted to Caduceon Kingston for analysis, with the exception of disinfection residuals and temperature. Caduceon 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 disinfection residuals and temperature parameters are analyzed in the field at the time of sample collection by certified operators, to ensure accuracy and precision of the results obtained.

OCWA uses several computer systems which include:

- Process Data Management (PDM)
  - This database program consolidates all operational data from a variety of sources including field data, online instrumentation, and electronic receipt of lab test results for reporting, tracking and analysis.
- Maximo – OCWA's Work Management System (WMS)
  - This program is used to track and schedule maintenance activities for all equipment in the system. It is also used to assign tasks for specific operational tasks.
- Wonderware (OUTPOST5)/SCADA
  - Wide-area SCADA system allows for process optimization and data logging, process trending, remote alarming.

The operations team also has access to a network of operational compliance and process specialists to assist for emerging process issues. This aids in establishing additional control measures to ensure a quality effluent product.

Detailed individual sample results for both raw sewage and final effluent can be requested from the operating authority.

6.2 CBOD5

Discharge Period	Seasonal Average	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	10.8 mg/L	15 mg/L	N	25 mg/L	N
	25.4 kg/d	N/A		N/A	
Fall	8.0 mg/L	15 mg/L	N	25 mg/L	N
	22.9 kg/d	N/A		N/A	

6.3 Total Suspended Solids

Discharge Period	Seasonal Average	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	17.5 mg/L	15 mg/L	Y	25 mg/L	N
	40.97 kg/d	N/A		N/A	
Fall	55 mg/L	15 mg/L	Y	25 mg/L	Y
	157.4 kg/d	N/A		N/A	

See Operational Issues/Problems section of this report for details for parameter exceedances.

6.4 Total Phosphorus

Discharge Period	Seasonal Average	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	0.16 mg/L	0.7 mg/L	N	1.0 mg/L	N
	0.37 kg/d	N/A		N/A	
Fall	0.47 mg/L	0.7 mg/L	N	1.0 mg/L	N
	1.33 kg/d	N/A		N/A	

6.5 Total Ammonia Nitrogen

Discharge Period	Seasonal Average	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	5.3 mg/L	N/A		N/A	
	12.4 kg/d	N/A		N/A	
Fall	1.1 mg/L	N/A		N/A	
	3.2 kg/d	N/A		N/A	

6.6 Total Kjeldahl Nitrogen

Discharge Period	Seasonal Average	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	8.85 mg/L	N/A		N/A	
	20.7 kg/d	N/A		N/A	
Fall	8.15 mg/L	N/A		N/A	
	23.3 kg/d	N/A		N/A	

6.7 E-coli

Discharge Period	Geometric Mean	Objective	Objective Exceedance (Y/N)	Limit	Limit Exceedance (Y/N)
Spring	53 cfu/100mL	N/A		N/A	
Fall	144.2 cfu/100mL	N/A		N/A	

6.8 pH

Discharge Period	Inclusive at all times	Objective (mg/L)	Objective Exceedance (Y/N)	Limit (mg/L)	Limit Exceedance (Y/N)
Spring	Min 8.10 Max 8.80	6.5-8.5	Y	6-9.5	N
Fall	Min 8.60 Max 8.70	6.5-8.5	Y	6-9.5	N

7 Operating Issues/Problems

There were no operating issues in 2023 that are not mentioned in the objective and limit exceedances below.

7.1 Effluent Quality Non-Compliance Summary

Date	Exceedance of	Limit	Value	Corrective Action
Spring Discharge	TSS ECA Objective	15 mg/L	17.5 mg/L	Historical issues with algae growth in the lagoon has led to total suspended solids issues. Lagoon monitored closely by operators when discharging. Photos of samples are taken.
Spring Discharge	pH ECA objective	8.5	8.8	Historical issues with algae growth causing elevated pH levels. Operators monitor the pH closely.

Date	Exceedance of	Limit	Value	Corrective Action
Fall Discharge	TSS ECA Limit	25 mg/L	55 mg/L	Historical issues with algae growth in the lagoon has led to total suspended solids issues. Lagoon monitored closely by operators when discharging. Photos of samples are taken. Actions taken: researching use of coagulant injection point at the SPS to improve solids settling, and more consistent/accurate dosing.
Fall Discharge	pH ECA objective	8.5	8.7	Historical issues with algae growth causing elevated pH levels. Operators monitor the pH closely.

7.2 Summary of Abnormal Sewage Discharge Events

Abnormal Discharge Events include Bypass', Overflows, Diversions and Spills of Sewage. Summary Details are included in Appendix B.

7.3 Spills (Other than Sewage)

Date	Location	Details	Volume (m3)	Start Date and Time	End Date and Time
No spills (other than sewage) in 2023.					

8 Maintenance

Routine planned maintenance activities are scheduled in WMS and include:

- Inspect, adjust and calibrate process control equipment to ensure proper operation of water distribution systems, pumps, chemical feeders, and all other equipment installed at the facilities.
- Carry out a routine maintenance program including greasing and oiling as specified in the lubrication schedule.
- Perform day-to-day maintenance duties to equipment including checking machinery and electrical equipment when required.
- Maintain an equipment inventory
- Maintain accurate records of work conducted, activities, and achievements.

Planned maintenance activities are communicated to the person responsible for completing the task through the issuance of WMS work orders. Work orders are automatically generated on a schedule as determined based on manufacturer's recommendations and site specific operational and maintenance needs and are assigned directly to the appropriate operations personnel. This schedule is set up by the designated WMS Primary. Work orders are completed and electronically entered into WMS by the person responsible for completing the task. Unplanned maintenance is conducted as required.

8.1 Normal Maintenance and Repairs

Work Order	Details
3665518	Riser rings purchased for manholes
3434010	Cap installed on storm water pipe at SPS
3247240	Level meter purchased for backup unit
3665531	Manholes #10, #20, #49 repaired with epoxy

8.2 Emergency Maintenance and Repairs

Work Order	Details
No emergency repairs in 2023.	

8.3 Flow Meter Calibrations and Maintenance

Location	Date of Calibration	Additional Maintenance
FIT-01 SPS Effluent	April 4th, 2023	None.

8.4 Authorized Alterations in Collection System

Work Order	Details	Significant Drinking Water Threat (Y/N)
No alterations to the collection system in 2023.		

8.5 Notice of Modifications

Date	Process	Modification	Status
No modifications made in 2023.			

9 Sludge Generation

Sludge depth is monitored periodically, and plans for sludge removal are made as needed for optimal operation of the lagoon system. Sludge removal from the north cell is planned for 2026. Some berm repairs were completed in 2022 to the north cell.

9.1 Sludge Disposal Summary

Date	Lagoon	Total Volume (m3)
2019	South Cell	N/A

10 Summary of Complaints

Location	Date	Nature of Complaint	Actions Taken
No complaints received in 2023.			

Appendix A

Appendix A – Performance Assessment Report

ONTARIO CLEAN WATER AGENCY
PERFORMANCE ASSESSMENT REPORT

MUNICIPALITY: TOWNSHIP OF LEEDS & THE THOUSAND ISLANDS
PROJECT: LANSDOWNE WASTEWATER LAGOON
PROJECT NUM.: 5975
WORKS NUM.: 110001934
DESCRIPTION: A SINGLE SEWAGE PUMPING STATION EQUIPPED WITH STANDBY DIESEL POWER, TWO FACULTATIVE LAGOON CELLS AND A SPRAY IRRIGATION SITE

YEAR: 2023
WATER COURSE: LA RUE MILLS CREEK
DESIGN CAPACITY: 336 m^3/d

MONTH	FLOWS					BIOCHEMICAL O_2 DEMAND			TOTAL SUSPENDED SOLIDS			PHOSPHORUS			TKN
	TOTAL FLOW (m^3)	AVG DAY FLOW (m^3)	MAX DAY FLOW (m^3)	LAGOON EFFLUENT FLOW (m^3)	DAYS OF EFFLUENT FLOW	AVG RAW BOD (mg/L)	AVG EFF CBOD (mg/L)	PERCENT REMOVAL (%)	AVG RAW TSS (mg/L)	AVG EFF TSS (mg/L)	PERCENT REMOVAL (%)	AVG RAW PHOS. (mg/L)	AVG EFF PHOS. (mg/L)	PERCENT REMOVAL (%)	AVG RAW TKN (mg/L)
JAN	8,236	266	604			126			110			2.83			22.6
FEB	8,075	288	578			162			154			6.55			55.9
MAR	9,147	295	528			95			88			3.13			35.0
APR	8,322	277	522	11,145	7	68	20.5	70.0	104	11.5	89.0	2.78	0.17	94.0	24.1
MAY	7,798	252	819	26,317	9	33	6.0	81.8	58	20.5	64.7	1.40	0.15	89.3	9.7
JUN	4,409	147	177			183			340			9.67			108.0
JUL	4,733	153	188			97			270			3.17			37.4
AUG	5,551	179	368			104			128			2.86			26.1
SEPT	3,839	128	161			396			370			10.00			124.0
OCT	4,217	136	198			194			192			7.12			58.5
NOV	4,510	150	244	11,625	4	177	9.0		520	34.0		8.79	0.38		96.6
DEC	8,890	287	692	2,683	1	110	7.0		300	76.0		3.90	0.55		35.2
TOTAL	77,727			51,770	21										
AVG		213				145	10.6	92.7	220	35.5	83.8	5.2	0.31	94.0	52.8
MAX			819			396			520			10.0			
CRITERIA		336					25			25			1.0		
COMPLIANCE		YES					YES			NO			YES		

COMMENTS: PERCENT REMOVAL BASED ON 12 MONTHS OF RAW SEWAGE GRAB SAMPLES

ONTARIO CLEAN WATER AGENCY
LAGOON PERFORMANCE ASSESSMENT REPORT

MUNICIPALITY: TOWNSHIP OF LEEDS & THE THOUSAND ISLANDS
PROJECT: LANSDOWNE WASTEWATER LAGOON
PROJECT NUM.: 5975
WORKS NUM.: 110001934
DESCRIPTION: A SINGLE SEWAGE PUMPING STATION EQUIPPED WITH STANDBY DIESEL POWER, TWO FACULTATIVE LAGOON CELLS AND A SPRAY IRRIGATION SITE

YEAR: 2023
WATER COURSE: La Rue Mills Creek
DESIGN CAPACITY: 336 m^3/d

DISCHARGE	SPRING							37,462	m^3
DATE	24-Apr	28-Apr-23	01-May	04-May	08-May	09-May	Avg	ECA Objective	ECA Limit
CBOD (mg/L)	7	34	5	5	11	3	10.8	15	25
TSS (mg/L)	15	8	9	28	38	7	17.5	15	25
TP (mg/L)	0.17	0.17	0.13	0.18	0.20	0.10	0.16	0.70	1.0
NH3/NH4 (mg/L)	6.59	6.23	5.38	5.26	3.87	4.32	5.3	N/A	N/A
pH	8.10	8.50	8.30	8.50	8.80	8.20	8.40	6.5 - 8.5	6.0 - 9.5
TKN (mg/L)	10.00	10.00	8.50	9.10	8.60	6.90	8.85		
Nitrite (mg/L)	0.12	0.20	0.24	0.34	0.19	0.28	0.23		
Nitrate (mg/L)	0.24	0.32	0.46	0.47	0.50	0.37	0.39		
H_2S (mg/L)	0.03	0.1	0.02	0.20	0.10	0.01	0.08		
E.coli (cfu/100 mL)	115	1020	400	60	8	1	53		

Note: CBOD5, TSS, TP, NH3 - Non-compliance when seasonal average exceeds the ECA limit. E.coli calculated using Geometric Mean

	PRE-DISCHARGE TP (mg/L)			
	S1	S2	S3	S4
North Cell	0.65	0.73	0.67	0.69
South Cell	0.25	0.27	0.21	0.24

*Spring discharge only from South Cell.

	LOADING (KG)	LOADING (KG/Day)
CBOD (kg)	406	25.36
TSS (kg)	656	40.97
TP (kg)	6	0.37
NH_3 (kg)	198	12.35
TKN (kg)	332	20.72

DISCHARGE	FALL			14,308	m^3
DATE	27-Nov	01-Dec	Avg	ECA Objective	ECA Limit
CBOD (mg/L)	9	7	8.0	15	25
TSS (mg/L)	34	76	55	15	25
TP (mg/L)	0.38	0.55	0.47	0.70	1.0
NH3/NH4 (mg/L)	1.13	1.14	1.1	N/A	N/A
pH	8.60	8.70	8.65	6.5-8.5	6.0-9.5
TKN (mg/L)	8.20	8.10	8.15		
Nitrite (mg/L)	0.4	0.05	0.2		
Nitrate (mg/L)	0.6	0.58	0.6		
H_2S (mg/L)	0.09	0.40	0.25		
E.coli (cfu/100 mL)	104	200	144.2		

Note: CBOD5, TSS, TP, NH3 - Non-compliance when seasonal average exceeds the ECA limit

	PRE-DISCHARGE TP (mg/L)			
	S1	S2	S3	S4
North Cell	–	–	–	–
South Cell	0.38	0.36	0.49	0.50

	LOADING (KG)	LOADING (KG/Day)
CBOD (kg)	114	22.89
TSS (kg)	787	157.39
TP (kg)	7	1.33
NH_3 (kg)	16	3.25
TKN (kg)	117	23.32

Appendix B

Appendix B - Details of Abnormal Sewage Discharge Events

Event Details Summary

Facility Bypass/Overflow

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
No facility bypass' or overflows in 2023.								

Collection Overflow

There are no authorized overflow locations in this system.

Spills of Sewage

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
No spills of sewage in 2023.								

Collection System Monitoring Data

Event Date	Event Location	Volume (m3)	Parameter	mg/L	Source Loading	Any Adverse Impacts & Corrective Actions
No collection system overflows in 2023.						

Appendix C

Appendix C - ECA Annual Report Requirements

Facility ECA # 3483-9Q6QAL **Section 11 (5)**	**Section in Report**
(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;	Treatment Flows, Raw Sewage, Effluent Quality
(b) a description of any operating problems encountered and corrective actions taken;	Operating Issues/Problems
(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;	Maintenance
(d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;	Effluent Quality
(e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;	Maintenance
(f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;	Effluent Quality
(g) a tabulation of the volume of sludge generated in the reporting period, 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;	Sludge Generation
(h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;	Summary of Complaints
(i) a summary of all By-pass, spill or abnormal discharge events; and	Operating Issues/Problems and Appendix B
(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;	Maintenance
(k) a report summarizing all modifications completed as a result of Schedule 'B', Section 3; and	Maintenance
(l) any other information the Water Supervisor requires from time to time.	N/A

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4.6.3 If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.	Operating Issues and Problems
4.6.4 Includes a summary of any operating problems encountered and corrective actions taken.	Operating Issues and Problems
4.6.5 Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, Equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System.	Maintenance
4.6.6 Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.	Summary of Complaints
4.6.7 Includes 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.	Maintenance

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4.6.8 Includes a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including: a) Dates; b) Volumes and durations; c) If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E.coli; d) Disinfection, if any; and e) Any adverse impact(s) and any corrective actions, if applicable.	Operating Issues and Problems Appendix D
4.6.9 Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable: a) 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. b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines. c) An assessment of the effectiveness of each action taken. d) 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. e) Public reporting approach including proactive efforts.	Maintenance Operating Issues and Problems