

Winchester Wastewater System

Sewage Works # 110001202

Annual Report

Prepared for: Township of North Dundas

Reporting Period of January 1st – December 31st 2020

Issued: March 30, 2021

Revision: 0

Operating Authority:



This report has been prepared to meet the requirements of Certificate of Approval #5312-88TK5R

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Operations and Compliance Reliability Indices

Compliance Event	# of Events
Ministry of Environment Inspections	0
Ministry of Labour Inspections	0
Non-Compliance	1
Spills/Overflows/Bypasses	0
Sewer Main Blockages	0

System Process Description

Winchester's wastewater system consists of a gravity fed sanitary sewage collection system, four pumping stations and a wastewater treatment lagoon. The main sewage pumping station is located on Ottawa Street and discharges directly to the lagoons. There are also two pumping stations located on Main Street and one on St. Lawrence Street which pump wastewater to the Ottawa St. SPS.

The wastewater treatment system consists of a seasonally discharged five cell lagoon system with a rated capacity of 2,220 m³/d. The three primary facultative treatment cells are operated in parallel (Cells 1, 2 and 3). Wastewater flows from the primary cells to the polishing cell (Cell No. 4), and finally to the post-aeration cell (Cell No. 5). Aeration within Cell No. 5 is supplied by centrifugal air blowers to control odours and strip hydrogen sulphide (H₂S) prior to discharge. Aluminum sulphate is dosed continuously for phosphorus control as wastewater is pumped to the lagoons. Seasonal discharge of effluent from the lagoons is permitted at specified times during the spring and fall each year. Effluent is pumped from Cell No. 5 over a distance of 7.3 kilometers to an outlet in the South Nation River.

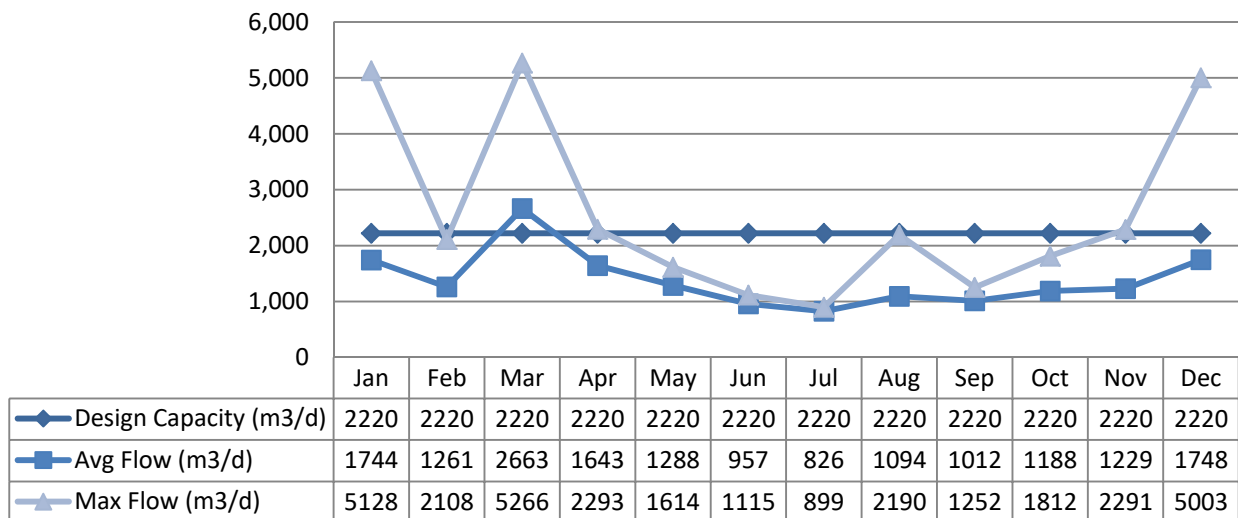
The Township of North Dundas initiated a Class Environmental Assessment of Winchester's wastewater treatment system in 2017 to address various operational challenges, such as hydraulic capacity, discharge constraints and treatment capabilities in order to ensure that increased wastewater flows from future growth can be effectively accommodated. To date, Phase 2 of the EA process has been completed.

Wastewater System Flows

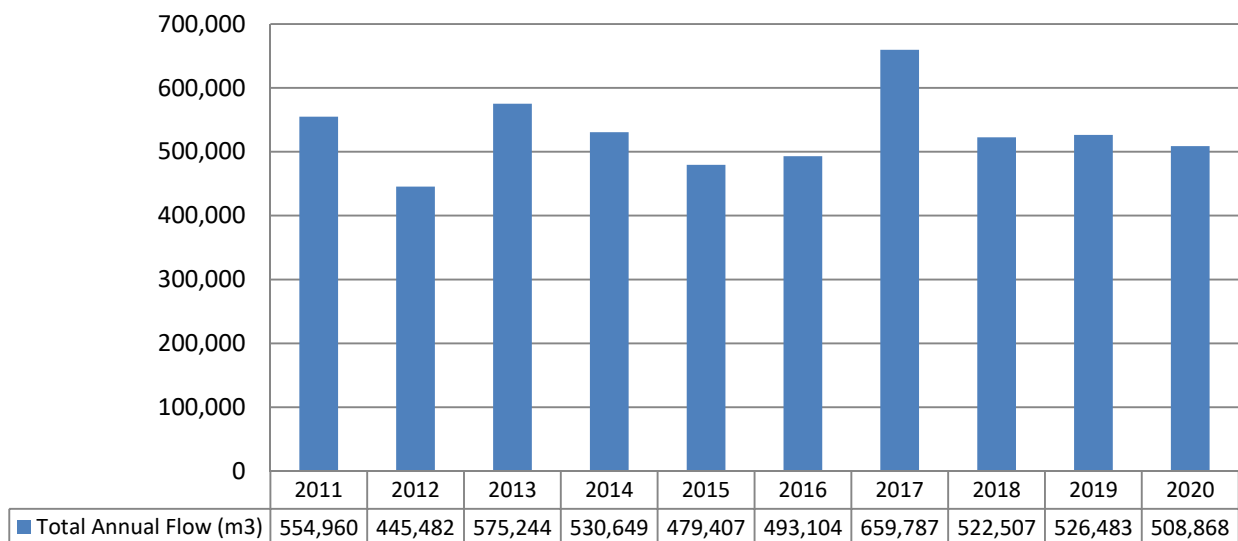
The hydraulic flows reaching the sewage lagoons in 2020 averaged 1,388 m³/day which represents 63% of the 2,220 m³/day design capacity.

Raw Flows

2020 Raw Flows:



Annual Raw Flow Comparison:



Effluent Flow

A total of 536,590 m³ of effluent was discharged from Winchester's sewage lagoons in 2020 with 336,331 m³ discharged in the spring and 200,259 m³ discharged in the fall.

Effluent Quality Assurance or Control Measures

Effluent control measures include pre-discharge sampling and testing of lagoon cell contents prior to seasonal discharges. The samples are collected by OCWA's competent and licensed staff using approved methods and protocols for sampling including those 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 were submitted to Caduceon in Ottawa for analysis, with the exception of pH, temperature and unionized ammonia. Caduceon is accredited by the Canadian Association for Laboratory Accreditation (CALA). Accredited labs must meet strict provincial guidelines including an extensive quality assurance/quality control program. By choosing these laboratories, OCWA 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. Un-ionized ammonia was calculated using the total ammonia nitrogen concentration, pH and temperature as required by the facility's Certificate of Approval.

Effluent Quality

During the reporting period, the average concentrations of carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), total phosphorus (TP), and pH remained below the effluent limits and objectives outlined in the ECA. In addition, the Dissolved Oxygen (D.O.) measured above the allowable minimum concentration throughout both the spring and fall discharge periods. The objective level of non-detectable was exceeded for undissociated hydrogen sulphide (H₂S) during both discharge periods, although the measured concentrations remained quite low.

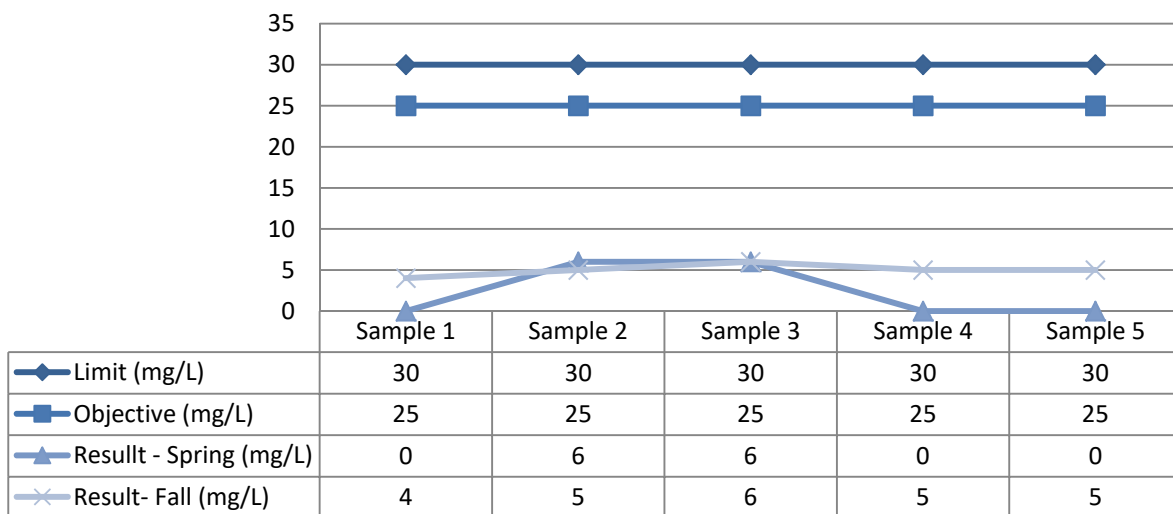
The total ammonia nitrogen (TAN) remained below both the effluent objective and limit during the spring discharge, but exceeded during the fall discharge. Please refer to the non-compliance correspondence submitted to the Ministry for more information (Appendix C) and the 'Operating Issues' section of this report for details.

Effluent during both the spring and fall discharge periods remained essentially free of floating or settleable solids and did not contain substances that would cause a film, sheen, foam or discoloration to the receiving stream.

The results from the spring and fall discharge periods are tabulated below. Please refer to the Performance Reports in Appendix A and the 'Operational Issues' section of this report for further information.

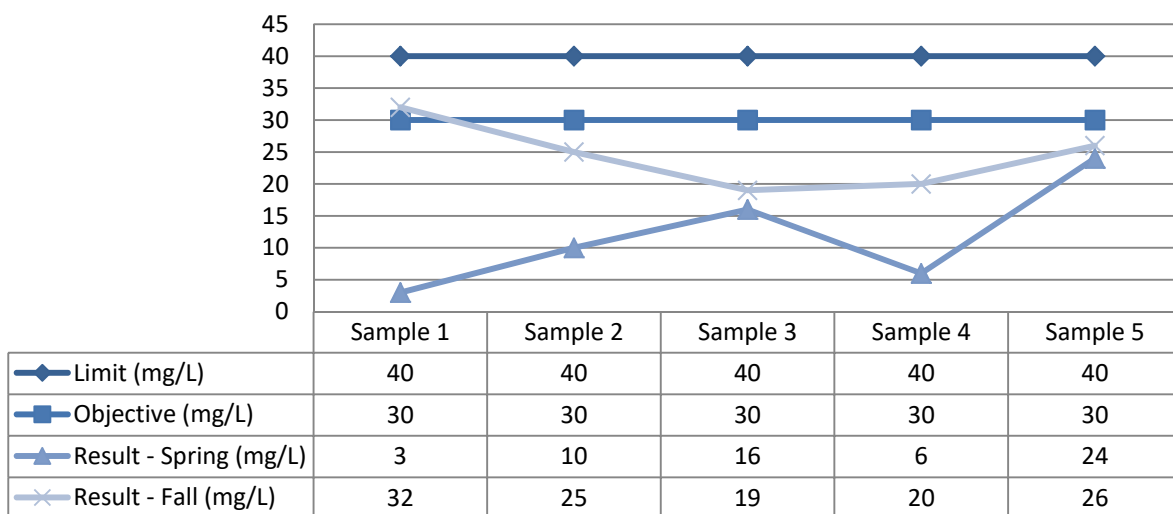
Carbonaceous Biochemical Oxygen Demand (5-Day)

Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Exceedance
Spring	3.3	30	25	No
Fall	5.0	30	25	No

Effluent CBOD₅ Results:**Total Suspended Solids**

Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Exceedance
Spring	11.8	40	30	No
Fall	24	40	30	No

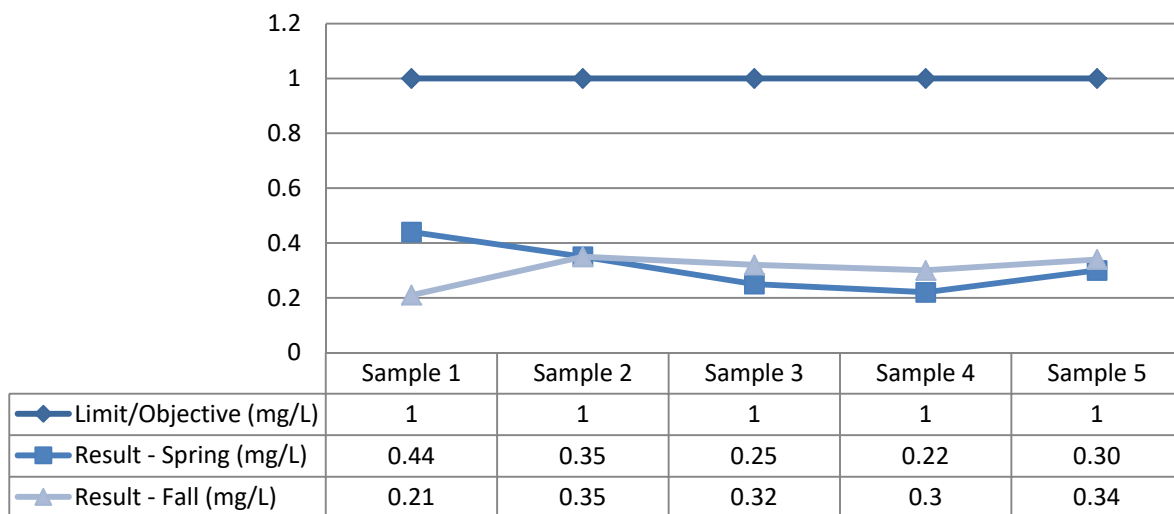
Effluent TSS Results:



Total Phosphorus

Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Exceedance
Spring	0.31	1.0	1.0	No
Fall	0.30	1.0	1.0	No

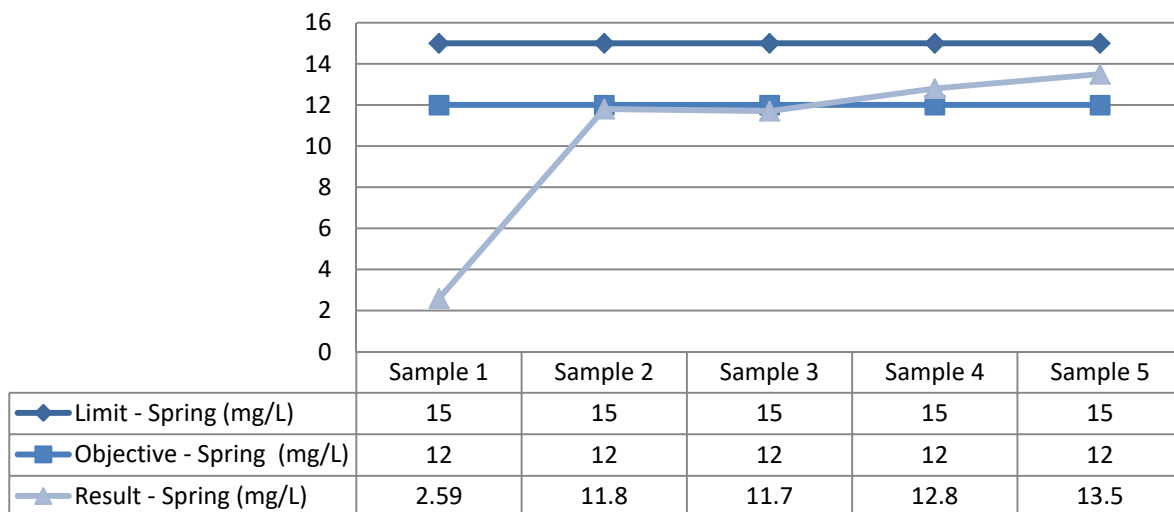
Effluent TP Results:

**Total Ammonia Nitrogen**

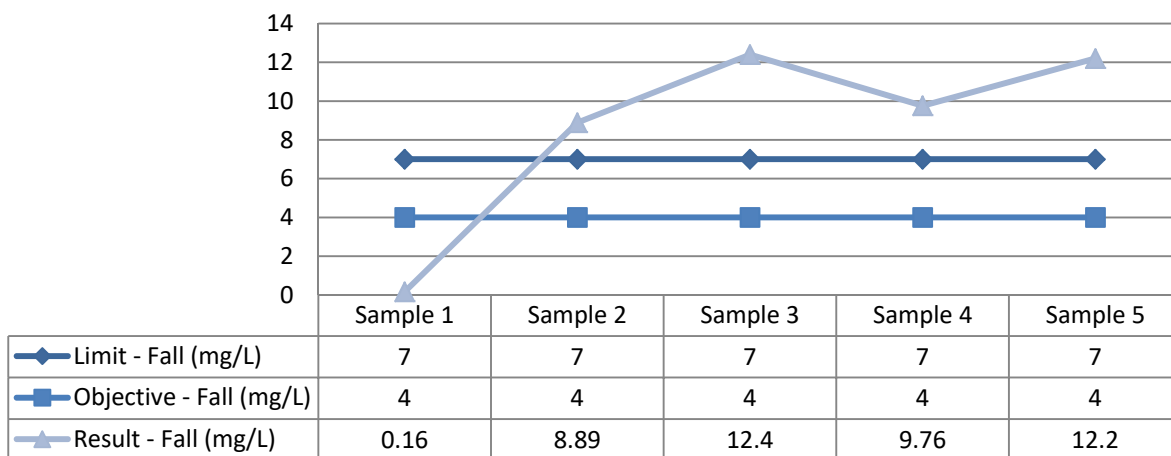
Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Exceedance
Spring	10.5	15	12	No
Fall	8.68	7	4	Yes*

*Please see the non-compliance correspondence to the Ministry attached in Appendix C.

Effluent TAN Results for Spring Discharge Period:



Effluent TAN Results for Fall Discharge Period:



Hydrogen Sulphide

Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Exceedance
Spring	0.0011	0.02	Non-detectable	Yes - <i>Objective</i>
Fall	0.0038	0.02	Non-detectable	Yes - <i>Objective</i>

Effluent Undissociated H₂S Results for Spring Discharge Period:

	19-Mar	25-Mar	30-Mar	03-Apr	14-Apr	Average
S ²⁻ (mg/L)	<0.01	0.04	0.03	0.02	0.04	0.03
pH	7.9	8.1	8.0	8.01	8.1	8.03
Temp	2.3	5.0	8.5	9.2	9.5	6.90
% Undissociated H ₂ S (from table)	20.6	15.6	14.0	13.8	13.6	15.52
Undissociated H ₂ S (mg/L)	ND	0.006	0.004	0.003	0.005	0.0011

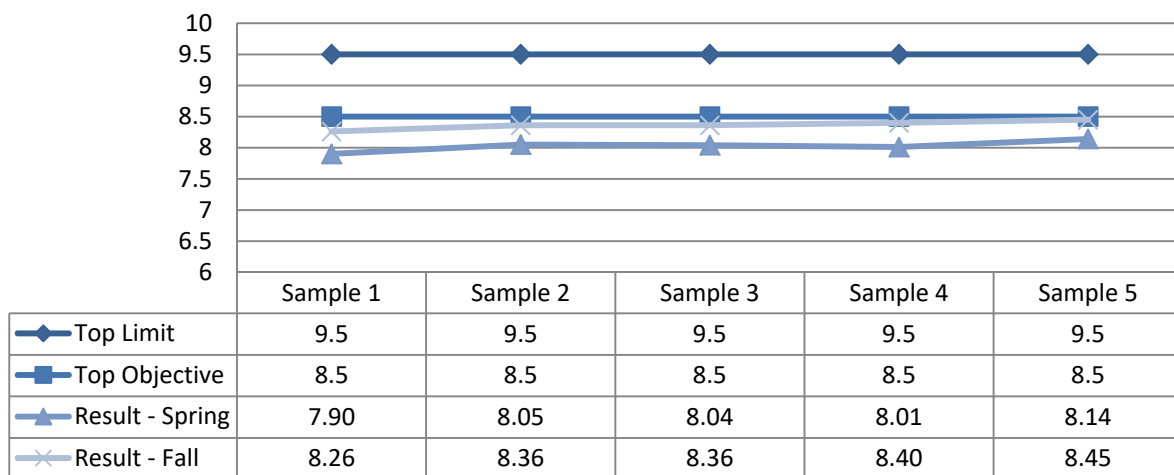
Effluent Undissociated H₂S Results for Fall Discharge Period:

	20-Nov	25-Nov	30-Nov	04-Dec	10-Dec	Average
S ²⁻ (mg/L)	0.05	0.06	0.04	0.05	0.06	0.05
pH	8.26	8.36	8.36	8.4	8.45	8.37
Temp	5.7	4.8	3	2.5	1.5	3.50
% Undissociated H ₂ S (from table)	8.275	6.939	7.427	7.579	6.382	7.32
Undissociated H ₂ S (mg/L)	0.004	0.004	0.003	0.004	0.004	0.0038

pH

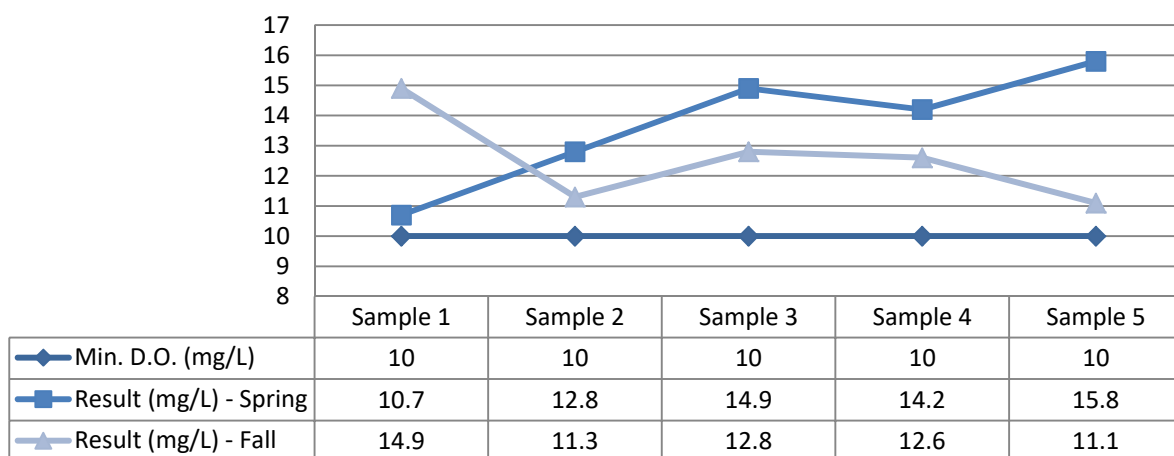
Discharge Period	Seasonal Average	Limit	Objective	Exceedance
Spring	8.03	6.0 – 9.5	6.5 – 8.5	No
Fall	8.37	6.0 – 9.5	6.5 – 8.5	No

Effluent pH Results:

**Dissolved Oxygen**

Discharge Period	Seasonal Average Concentration (mg/L)	Limit (mg/L)	Objective (mg/L)	Compliant
Spring	13.7	10	n/a	Yes
Fall	12.5	10	n/a	Yes

Effluent D.O. Results:



Operating Issues

The ECA limit for total ammonia nitrogen (TAN) was exceeded during the fall discharge in 2020. The elevated TAN concentration in the samples appears to have been caused by a lack of precipitation and high levels of evaporation during the summer months.

Maintenance

Flow Meter Calibration and Maintenance

Copies of the flow meter calibration certificates for 2020 are attached in Appendix B.

Maintenance Summary

Description
<ul style="list-style-type: none"> - Performed routine sewer flushing and wet well cleaning - Repaired/upgraded manholes in collection system - Upgraded Falcon alarm system at all sewage pumping stations - Replaced Pump #2 at Ottawa St. SPS - Removed vegetation and brush from lagoon - Installed new gate at lagoon

Notice of Modifications

Date	Process	Modification	Status
None to report.			

Sludge Generation

Sludge depth is monitored periodically, and plans for sludge removal are made as required for optimal operation of the lagoon system.

Summary of Complaints

Location	Date	Nature of Complaint	Actions Taken
None to report			

Summary of Abnormal Discharge Events

Bypass/Overflow/Spills

No bypasses, overflows, or spills occurred during the reporting period.

Appendix A

Performance Assessment Reports

ONTARIO CLEAN WATER AGENCY PERFORMANCE ASSESSMENT REPORT

MUNICIPALITY: TOWNSHIP OF NORTH DUNDAS
PROJECT: WINCHESTER WASTEWATER TREATMENT PLANT

PROJECT NUM.: 5679

WORKS NUM.: 110001202

DESCRIPTION: A FIVE CELL LAGOON (#5 CELL POST AERATION) CELL #1 - 3.95 HA, CELL #2 - 2.75 HA,
CELL #3 - 4.1 HA, CELL #4 - 6.3 HA, CELL #5 - 2.0 HA

YEAR: 2020
WATER COURSE: SOUTH NATION RIVER
DESIGN CAPACITY: 2220 m³/day

MONTH	FLOWS					Avg. Alum Dosage (mg/L)	CBOD5			TOTAL SUSPENDED SOLIDS			PHOSPHORUS			TKN
	TOTAL FLOW m ³	AVG DAY FLOW m ³	MAX DAY FLOW m ³	EFFLUENT FLOW m ³	DISCHARGE DURATION (days)		AVG RAW BOD5 (mg/L)	AVG EFF CBOD5 (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	54,058	1,744	5,128			108.5	106			150			3.22			29.9
FEB	36,571	1,261	2,108			108.3	17			120			2.71			28.1
MAR	82,554	2,663	5,266	155,230	13	107.1	21	4.5		56	9.7		1.62	0.35		17.6
APR	49,286	1,643	2,293	181,101	14	111.6	25	1.5		50	15.0		1.69	0.26		16.9
MAY	39,940	1,288	1,614			109.4	74			60			2.91			32.7
JUN	28,711	957	1,115			111.1	58			80			3.70			39.2
JUL	25,595	826	899			111.7	57			120			5.08			53.2
AUG	33,910	1,094	2,190			109.8	59			70			4.30			43.8
SEP	30,355	1,012	1,252			111.1	27			48			3.10			33.1
OCT	36,820	1,188	1,812			108.6	51			45			2.83			31.1
NOV	36,883	1,229	2,291	100,129	11	108.8	36	5.0		65	25.3		3.69	0.29		31.1
DEC	54,183	1,748	5,003	100,130	10	108.4	77	5.0		100	23.0		5.46	0.32		34.2
TOTAL	508,868		SPRING	336,331	27											
TOTAL			FALL	200,259	21											
AVG		1,388				109.5	51	4.2	91.8	80	18.1	77.5	3.36	0.31	90.8	32.6
MAX			5,266				106			150			5.46			53.2
CRITERIA		2,220		SPRING	21			30			40			1		
CRITERIA				FALL	21			30			40			1		

Note: PERCENT REMOVAL BASED ON 12 MONTHS OF RAW SEWAGE COMPOSITE SAMPLES

**ONTARIO CLEAN WATER AGENCY
LAGOON PERFORMANCE ASSESSMENT REPORT**

MUNICIPALITY: **TOWNSHIP OF NORTH DUNDAS**
 PROJECT: **WINCHESTER WASTEWATER TREATMENT LAGOONS**
 PROJECT NUM.: **5679**
 WORKS NUM.: **110001202**
 DESCRIPTION: **A FIVE CELL LAGOON (#5 CELL POST AERATION) CELL #1 - 3.95 HA, CELL #2 - 2.75 HA
 CELL #3 - 4.1 HA, CELL #4 - 6.3 HA, CELL #5 - 2.0 HA**

YEAR: **2020**
 WATER COURSE: **SOUTH NATION RIVER**
 DESIGN CAPACITY: **2220 m³/day**

SAMPLE RESULTS	336,331 m ³								
	DATE	19-Mar	25-Mar	30-Mar	03-Apr	14-Apr	Average	C of A Objective	C of A Limit
SAMPLE 5X/DISCH. START, 25%, 50%, 75%, END	CBOD (mg/L)	<3	6	6	<3	<3	3.3	25	30
	TSS (mg/L)	3	10	16	6	24	11.8	30	40
	TP (mg/L)	0.44	0.35	0.25	0.22	0.30	0.31	1	1
	DO (mg/L)	10.7	12.8	14.9	14.2	15.8	13.7	-	10
	N-NH ₃ (mg/L)	2.59	11.8	11.7	12.8	13.5	10.5	12	15
	unionized NH ₃ **	0.000	0.027	0.099	0.234	0.223	0.12		
	NO ₂ (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1			
	NO ₃ (mg/L)	0.4	0.10	<0.1	<0.1	0.30			
	TKN (mg/L)	4.5	17.3	16	16.3	19.7			
	<i>E.coli</i> (cfu/100 mL)	0	109	49	6	62			

** un-ionized NH₃ based on in-house calculation

	19-Mar	25-Mar	30-Mar	03-Apr	14-Apr	Average	Objective	Limit
S ₂ - (mg/L)	<0.01	0.04	0.03	0.02	0.04	0.0325	N/A	N/A
pH	7.9	8.1	8.0	8.01	8.1	8.03	6.5 - 8.5	6.0 - 9.5
Temp	2.3	5.0	8.5	9.2	9.5	N/A	N/A	N/A
% Undissociated H ₂ S	20.6	15.6	14.0	13.8	13.6	N/A	N/A	N/A
Undissociated H ₂ S	ND	0.006	0.004	0.003	0.005	0.0011	ND	0.02

PRE-DISCHARGE RESULTS	10-Mar-20	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
	CBOD (mg/L)	8	6	<3	<3	4
	TSS (mg/L)	8	9	10	27	8
	TP (mg/L)	0.16	0.24	0.39	0.39	0.60
	NH ₃ (mg/L)	8.59	5.78	1.18	0.46	3.14
	S ₂ - (mg/L)	5.81	0.33	0.01	0.02	0.02
	<i>E.coli</i> (cfu/100 mL)	51	86	48	2	1

COMMENTS: H₂S, TP, *E.coli* sampled prior to discharge

TOTAL LOADING	SPRING	FALL	TOTAL	ECA LIMIT
CBOD (kg)	1,110	1,001	2,111	24,309
SS (kg)	3,969	4,886	8,855	32,412
TP (kg)	105	61	166	810.3
NH ₃ (kg)	3,524	1,739	5,263	-

SAMPLE RESULTS	200,259 m ³								
	DATE	20-Nov	25-Nov	30-Nov	04-Dec	10-Dec	Average	C of A Objective	C of A Limit
SAMPLE 5X/DISCH. START, 25%, 50%, 75%, END	CBOD (mg/L)	4	5	6	5	5	5.0	25	30
	TSS (mg/L)	32	25	19	20	26	24	30	40
	TP (mg/L)	0.21	0.35	0.32	0.3	0.34	0.30	1	1
	DO (mg/L)	14.9	11.3	12.8	12.6	11.1	12.5	-	10
	N-NH ₃ (mg/L)	0.16	8.89	12.4	9.76	12.2	8.68	4	7
	unionized NH ₃ (mg/L)	0.004	0.002	0.293	0.243	0.31	0.17		
	NO ₂ (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1			
	NO ₃ (mg/L)	0.1	0.3	0.3	0.3	0.3			
	TKN (mg/L)	2.6	14.4	16.6	14.70	16.6			
	<i>E.coli</i> (cfu/100 mL)	75	39	8	4	68			

** un-ionized NH₃ based on in-house calculation

	20-Nov	25-Nov	30-Nov	04-Dec	10-Dec	Average	Objective	Limit
S ₂ - (mg/L)	0.05	0.06	0.04	0.05	0.06	0.052	N/A	N/A
pH	8.26	8.36	8.36	8.4	8.45	8.37	6.5 - 8.5	6.0 - 9.5
Temp	5.7	4.8	3	2.5	1.5	N/A	N/A	N/A
% Undissociated H ₂ S	8.275	6.939	7.427	7.579	6.382	N/A	N/A	N/A
Undissociated H ₂ S	0.004	0.004	0.003	0.004	0.004	0.0038	ND	-

PRE-DISCHARGE RESULTS	29-Oct	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
	CBOD (mg/L)	4	4	4	<3	3
	TSS	16	24	12	30	17
	TP (mg/L)	0.28	0.33	0.23	0.22	0.21
	NH ₃ (mg/L)	12.00	14.60	5.22	1.77	0.05
	TKN (mg/L)	18.2	22.6	8.9	5.4	2.2
	H ₂ S (mg/L)	0.030	0.060	0.040	0.020	0.040
	<i>E.coli</i> (cfu/100 mL)	2000	3100	2100	1600	1400

COMMENTS: H₂S, TP, *E.coli* sampled prior to discharge

**ONTARIO CLEAN WATER AGENCY
WINCHESTER SEWAGE LAGOON 2020**

DETERMINATION OF UN-IONIZED AMMONIA (NH₃) IN WASTEWATER EFFLUENT

Sample Date	Temperature (°C)	Degrees Kelvin	Dissociation Constant pKa	Sample pH on-site	Fraction of Un-ionized Ammonia	Total Ammonia (mg/L) (NH ₃ + NH ₄ +as N)	Un-ionized Ammonia (mg/L)
19-Mar	2.3	275.45	10.00	7.9	0.0079	2.59	0.020
25-Mar	5.0	278.15	9.90	8.1	0.0138	11.8	0.163
30-Mar	8.5	281.65	9.78	8.0	0.0178	11.7	0.208
03-Apr	9.2	282.35	9.76	8.01	0.0175	12.8	0.224
14-Apr	9.5	282.65	9.75	8.1	0.0240	13.5	0.325

20-Nov	5.7	278.85	9.88	8.26	0.0234	0.16	0.004
25-Nov	4.8	277.95	9.91	8.36	0.0273	0.06	0.002
30-Nov	3	276.15	9.98	8.36	0.0236	12.4	0.293
04-Dec	2.5	275.65	9.99	8.4	0.0248	9.76	0.243
10-Dec	1.5	274.65	10.03	8.45	0.0256	12.2	0.313

Appendix B

Flow Meter Calibration Reports



Work Order #	1661664	Meter Flow Verification (1y) 5679	Status COMP
Job Plan #	METFLO01-A	METER FLOW ANNUAL GENERIC	
Project	NORDUY5679-M100		
Type	PM		Scheduled Start Date 03-Mar-20
Criticality	3		
Class	Calibration		

Location	5679, Winchester Wastewater Lagoon & CS, Process, Process Control & Monitoring
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Asset	0000073400	METER FLOW LAGOON	Status OPERATING
Building	PUMPING STATION BUILDING		
Level	G		
Qualifier	WINCHESTER LAGOON AT PUMP HOUSE		
Manufacturer	ENDRESS & HAUSER		
Model	33FH4H MA1FD81F21A		
Serial Number	5M 627538		
Warranty Expiration			
Install Date	01-Jan-00		Purchase Price \$ 1,800.00
Asset Comments	Calibrated Range0-378.54 l/sec0-32705.9 m3/daycal factor 1.0907PERCENT OF ACCURACY - CLASS - RANGE - CALIBRATION RANGE - DATE CODE - TYPE/ FORM - MAGCAPACITY/RATING - M3/DAYCATALOG NUMBER - LAYING LENGTH - OUTPUT AMPERAGE - 4-20MAOUTPUT TYPE (PULSE/MILLIAMPS) - MILLAMPDESIGN PRESSURE - SCADA TAG # -		

Reported By	MAXADMIN
Lead	
Crew Work Group	1225 Meter Flow Verification Team 2 Chesterville

Asset #	Meter	Last Reading	Date	Current Reading	Date
0000073400	AS LEFT	AS LEFT ASSET CONDITION			

Safety Message

This Work Order (and accompanying Maintenance Procedure) have been developed to aid field personnel in the care and maintenance of the specified equipment. However, maintenance personnel are expected to look for and correct any defects which are not anticipated in the procedure. This document may not provide all the technical information that may be required, and it may be necessary to refer to the manufacturer's manual for further details.

The "As Found" and "As Left" readings, as well as any abnormalities found and any repairs carried out, are to be recorded in the Maximo WMS System.

Isolate and de-energize equipment in accordance with the lock-out procedure.

Take time to identify hazards and plan how each hazard will be eliminated or controlled. Work practices must be in accordance with the Occupational Health & Safety Act and the Ontario Clean Water Agency safety manual.

Ensure direct supervisor or their designate have been notified of entry into the site. This notification should provide approximate time and duration. On completion of duties notification is to be given that site has been vacated and secured.

Task	Description
10	RUNNING CHECKS <ol style="list-style-type: none"> 1) Verify calibration parameters and programming parameters where applicable. 2) Ensure proper connections and grounding. 3) Check display for any alarm or error codes.
20	HAVE QUALIFIED TECHNICIAN CALIBRATE UNIT <ol style="list-style-type: none"> 1. Have a qualified technician calibrate the unit, using actual flow method or flow simulator. 2. Calibration records must be kept for a period of five years. 3. Records shall include the level of accuracy of the equipment as found and as left. 4. Calibration test equipment shall be certified annually and certification dates recorded on the calibration record. Some test equipment may not require calibration
30	RECORD ADJUSTMENTS AND VERIFY OUTPUTS <ol style="list-style-type: none"> 1. Record any adjustments, modifications or replacements made to the equipment during the calibration. 2. Verify accuracy of electronic outputs to the end device as required based on theoretical versus actual values .{Chart recorders, SCADA, Outpost 5}. 3. Ensure all nameplate data is recorded and entered in WMS.
40	COMPLETE A VERIFICATION SHEET FOR EACH FLOW METER, POST IT AND ATTACH TO WORK ORDER <p>Note: Calibration sheet must be signed and original kept on site in the SOP binder.</p>

For Field-Use Only - Completion Elements:



Work Log:

Annual Inspection and Calibration of Flow Meters

Labour

Date	Reg/Prem.	Hours	Memo

Completed By

Please Print Name

Stephane Barbarie

Signature

Stephane Barbarie

Date

March 27, 2020

Appendix C

Ministry Correspondence

December 22nd 2020

Ministry of the Environment, Conservation and Parks
Ottawa District Office
2430 Don Reid Drive, Suite 103
Ottawa, ON K1H 1E1

Attention: Charlie Primeau, Supervisor

Subject: Winchester Sewage Lagoon - Notification of Non-Compliance with Total Ammonia Nitrogen (TAN) Limit

This letter provides notification of non-compliance with the effluent concentration limit for TAN specified in section 7(1) of ECA #5312-88TK5R during the fall discharge of Winchester's Sewage Lagoon. This letter confirms the verbal notification of non-compliance provided by OCWA to the Ontario Ministry of the Environment, Conservation and Parks' Spills Action Centre on December 21, 2020 (Reference # 0231-BWHTRG).

The following effluent parameter was exceeded:

Parameter	Type of Limit	Type of Sample	Result	ECA Limit
Total Ammonia Nitrogen	Seasonal Average Concentration	Grab	8.68 mg/L	7.0 mg/L

The fall discharge of Winchester's sewage lagoons began on November 20th 2020 and ended on December 10th 2020. Five samples were collected during the discharge. The concentration of total ammonia nitrogen in the samples were 0.16, 8.89, 12.4, 9.76, and 12.2 mg/L respectively. The elevated TAN concentration in the samples appears to have been caused by a lack of precipitation and high levels of evaporation during the summer months. It should be noted that all other parameters remained well below the ECA limits throughout the discharge. A complete listing of all sample results obtained during the spring discharge can be found in the Lagoon Discharge PAR, attached.

If you have any questions or concerns, please contact me at (613) 724-8678.

Sincerely,



Kaylee Saar
Process & Compliance Technician
Seaway Valley Cluster

Cc: Angela Rutley, CAO, Township of North Dundas
Khurram Tunio, Director of Public Works, Township of North Dundas
Stephane Barbarie, Senior Operations Manager, OCWA
Patrick Lanlonde, Provincial Officer, MECP