



Wastewater Treatment and Collection System

Washago Lagoon 2024 Annual Report

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Executive Summary

Washago utilizes a dual-cell facultative lagoon system for sewage treatment. The effluent quality is monitored before, during and after treatment to verify compliance with the Ministry of the Environment, Conservation and Parks (MECP) Certificate of Approval (C of A). Only Cell No. 1 is equipped to discharge into the Green River. Cell No. 2 is used for the retention of incoming sewage while Cell No. 1 is for discharging. River samples are taken before and during discharge to monitor the effects of the discharge on water quality.

Cell No. 1 was discharged in the spring and the fall of 2024. The mean concentrations and total loadings of all parameters were below their respective C of A compliance limits.

There was no impact on the quality of the Green River due to the spring and fall discharges. The total volume of effluent discharged was 51,897 m³ - approximately 63% of the facility's operating capacity of 81,900 m³/year.

No bypass occurred during the 2024 operating year.

Introduction

Washago is situated approximately 20 km north of Orillia near the intersection of Highway No. 11 and County Road No. 169. The lagoon is located approximately 1.5 km northwest of the village core. Treated effluent from the facility is discharged to the Green River.

Facility Technical Information

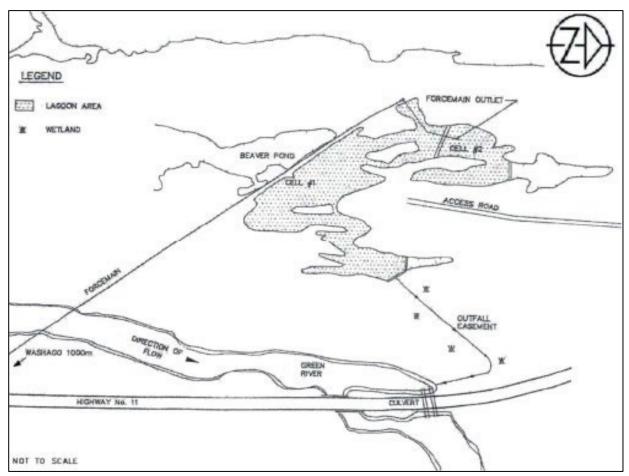
The lagoon is operated under C of A No. 3-1081-83-006. A copy of the C of A is enclosed in Appendix A.

The lagoon consists of two cells operated in series. Sewage is pumped from the main pumping station in Washago into Cell No. 2. Sewage then flows into Cell No. 1 through a valved transfer pipe located in the berm separating the cells.

Storage and treatment of raw sewage are provided in Cell No. 2 during the treatment of Cell No.1. Cell No. 1 discharges to the Green River via an outfall that

runs through the adjacent wetland. According to the C of A, the seasonal operating capacity of the facility is 40,950 m³ based on an average day flow of 227.5 m³/day over 180 days. The configuration of the lagoon and outfall easement are shown on Figure 1.

Figure 1: Sewage Treatment Facility Site Plan



Performance Criteria

The C of A objective and compliance limits for effluent quality and the waste loading limits are summarized in Table 1.

Table 1: Performance Criteria

Parameter	Objective Limits	Objective Limits	Compliance Limits	Compliance Limits
	Concentration (mg/L)	Semi-Annual Loading (kg)	Concentratio n (mg/L)	Semi-Annual Loading (kg)
BOD ₅	15	614	25	1024
TSS	20	815	25	1024
Pt	1	41	1	41

Monitoring and Treatment Protocol

Raw sewage samples were collected from Washago Sewage Pumping Station #1 monthly and analyzed for TSS, BOD5, Pt and TKN. Results of the analysis are shown on the Municipality Monitoring Program Mechanical Plants forms enclosed in Appendix B and summarized in Table 2.

Raw Sewage Monitoring

Table 2: Raw Sewage Monitoring Results

Date	TSS (mg/L)	BOD ₅ (mg/L)	Pt	TKN (mg/L)
January 3, 2024	263	468	3.19	25.8
February 7, 2024	128	422	4.40	34.6
March 6, 2024	98	132	2.75	26.5
April 3, 2024	197	235	3.40	57.0
May 7, 2024	125	56	1.26	12.9
June 4, 2024	196	218	4.84	44.7
July 3, 2024	134	215	5.54	53.5
August 7, 2024	94	391	5.01	47.9
September 17, 2024	246	250	5.60	39.5
October 16, 2024	102	189	5.29	51.5
November 5, 2024	105	193	5.65	54.4
December 4, 2024	73	142	3.93	47.0

Sewage Flow Monitoring

The volume of sewage pumped from Washago Sewage Pumping Station #1 to the lagoon is estimated monthly by multiplying the elapsed run time of each pump in the station by the capacity of the pump. Draw down tests are completed by Township staff in the spring and the fall to confirm pump capacity. Draw down test calculations are enclosed in Appendix C. Raw sewage flows are shown on the Municipality Monitoring Program Mechanical Plants forms enclosed in Appendix B.

Based on the influent volumes reported in the Municipal Utility Monitoring Report, the total estimated volume of sewage transferred to the lagoon during the December 11, 2023, to May 29, 2024, operating season was 22,471 m³. The total estimated volume of sewage transferred to the lagoon during the May 29, 2024, to December 5, 2024, operating season was 14,426 m³. The total volume of sewage transferred to the lagoon

during the winter and summer operating seasons was 36,897 m³. Sewage flows are summarized in Table 3 and 4.

Date	Volume (m³)
December 11 to 31, 2023	3195
January 2024	3015
February 2024	3197
March 2024	4164
April 2024	5289
May 1 to May 29, 2024	3611
Total	22,471

Table 3: Sewage Flow to Lagoon Summer Operating Season

Table 4: Sewage Flow to Lagoon Winter Operating Season

Date	Volume (m³)
May 29 to May 31, 2024	248
June 2024	2407
July 2024	2672
August 2024	2174
September 2024	1870
October 2024	2240
November 2024	2100
December 1 to December 5, 2024	715
Total	14,426

Treatment and Sampling Protocol

Final treatment of the sewage begins by isolating Cell No. 1 for a period of approximately 30 days. depending on operational constraints. During this period, all sewage received at the lagoon is retained in Cell No. 2. To ensure adequate storage volume in Cell No. 2 during the treatment period, the operator transfers as much of the volume of Cell No. 2 to Cell No. 1 by pump.

During the treatment period, composite samples are collected to determine the quality

of the effluent. If the effluent quality is below the C of A compliance limits, the cell is discharged without further treatment. If treatment is required, it is accomplished by batch chemical treatment with liquid aluminum sulphate (alum). Alum is added to the lagoon contents to initiate precipitation of the suspended matter. Although the treatment is essential to reduce P_t levels, a significant reduction of BOD₅ and TSS is also achieved. The addition of liquid alum is carried out using the procedure outlined and recommended by the MECP in a technical report issued January 16, 1974.

Pre- and post-treatment samples are obtained from representative locations in Cell No. 1 and analyzed for BOD₅, P_t, TSS, pH, TA, TKN and Alkalinity. Discharge samples are collected from the downstream end of the Cell No. 1 discharge pipe and analyzed for the same parameters.

Grab samples are obtained from the Green River, upstream and downstream of the lagoon discharge point to monitor impacts of the discharge on the river. Samples are analyzed for BOD₅, P_t, TSS, pH, TA, TKN and Alkalinity.

Laboratory analysis reports for effluent and river samples are enclosed in Appendix D.

Treatment / Discharge

Spring Discharge

Three pre-discharge samples were taken from Cell No.1 for the spring discharge and three more during discharge to confirm effluent quality. The concentrations of P_t , TSS and BOD_5 reported in the pre-discharge samples were below the compliance limit. Based on the results of the pre-discharge samples, the discharge of Cell No. 1 commenced without batch chemical treatment. Results of the analysis are outlined in Table 5.

	Date	TSS (mg/L)	BOD ₅ (mg/L)	P t (<i>mg/L</i>)
Sample 1	April 22, 2024	3	<4	0.15
Sample 2	April 29, 2024	<2	<4	0.12
Sample 3	May 7, 2024	<2	<4	0.16
C of A Objective		20	15	1
C of A Compliance		25	25	1

Table 5: Pre-Discharge Sampling – Spring Discharge

2024 Annual Report –Washago Lagoon

The spring discharge commenced on May 21, 2024. The total volume of effluent discharged was 22,471 m³ at a mean discharge rate of 2723 m3/day. During the discharge, the mean concentrations of TSS, BOD5 and Pt were below compliance limits. A summary of the effluent quality and waste loadings is illustrated in Table 6.

	Date	TSS (mg/L)	BOD₅ (mg/L)	Pt (mg/L)
Start Discharge	May 21, 2024	2	<4	0.20
Mid Discharge	May 23, 2024	3	<4	0.23
Mid Discharge	May 27, 2024	3	4	0.20
End Discharge	May 29, 2024	2	<4	0.21
Mean Concentration		2.5	4.0	0.21
C of A Objective		20	15	1
C of A Compliance		25	25	1
Effluent Waste Loading(kg)		56	90	4.71

 Table 6: Effluent Discharge Summary – Spring Discharge

Samples were obtained from the Green River, upstream and downstream of the lagoon discharge point, at the start, middle and end of the discharge. Results of the analysis are illustrated in Table 7. Analysis of the receiving stream samples showed no impact on the Green River due to the discharge of Cell No.1.

 Table 7: Green River Monitoring – Spring Discharge

	Date	TSS (mg/L)	BOD ₅ (mg/L)	Pt (mg/L)
Start Discharge	May 21, 2024			
Upstream		3	<4	< 0.03
Downstream		2	< 4	< 0.03
Mid Discharge	May 23, 2024			
Upstream		7	< 4	< 0.03
Downstream		3	< 4	< 0.03
Mid Discharge	May 27, 2024		·	

2024 Annual Report -Washago Lagoon

	Date	TSS (mg/L)	BOD ₅ (mg/L)	Pt (mg/L)
Upstream		4	< 4	<0.03
Downstream		2	< 4	< 0.03
End Discharge	May 29, 2024			
Upstream		<2	<4	<0.03
Downstream		<2	<4	<0.03

Fall Discharge

Three pre-discharge samples were taken from Cell No. 1 to confirm effluent quality prior to the fall discharge. All parameters were below the C of A compliance limits. Based on these results, the discharge of Cell No. 1 commenced without batch chemical treatment. Results of the analysis are illustrated in Table 8.

	Date	TSS (mg/L)	BOD ₅ (mg/L)	Pt (mg/L)
Sample 1	October 28, 2024	<2	6	0.16
Sample 2	November 4, 2024	6	8	0.08
Sample 3	November 11, 2024	8	9	0.13
C of A Objective		20	15	1
C of A Compliance		25	25	1

Table 8: Pre-Discharge Sampling – Fall Discharge

The discharge of Cell No. 1 commenced on November 25, 2024. The total volume of effluent discharged was 27,085 m³ at a mean discharge rate of 2,708 m³/day.

During the discharge, the mean concentrations of TSS, BOD5 and Pt were below compliance limits. A summary of the effluent quality and waste loadings is illustrated in Table 9.

Table 9: Effluent Discharge Summary – Fall Discharge

	Date	TSS (mg/L)	BOD ₅ (mg/L)	P _t (mg/L)
Start Discharge	November 25, 2024	9	12	0.11
Mid Discharge	November 28, 2024	2	<4	0.11
End Discharge	December 5, 2024	5	<4	0.18
Mean Concentration		5.3	6.6	0.13
C of A Objective		20	15	1
C of A Compliance		25	25	1
Effluent Waste loading(kg)		143	178	3.52

Samples were obtained from the Green River, upstream and downstream of the lagoon discharge point, at the start, middle and end of the discharge. Analysis of the receiving stream samples showed no impact on the Green River due to the discharge of Cell No. 1. The results of the analysis are illustrated in Table 10.

Table 10: Green River Monitoring – Fall Discharge

	Date	TSS (mg/L)	BOD ₅ (mg/L)	Pt (mg/L)
Start Discharge	Nov 25, 2024			
Upstream		<2	<4	< 0.03
Downstream		<2	< 4	< 0.03
Mid Discharge	Nov 28, 2024			
Upstream		<2	< 4	< 0.03
Downstream		<2	< 4	< 0.03
End Discharge	Dec. 5, 2024			
Upstream		4	< 4	<0.03
Downstream		<2	< 4	< 0.03

2024 Annual Report -Washago Lagoon

Efforts and Results in Meeting Effluent Objectives of Certificate of Approval

The lagoon is operated and maintained such that all effluent quality objectives are strived for. Objectives and limits are based on an average. There were no limit exceedance during the 2024 discharges.

2024 Operating Year Summary

The volumes of influent received, and effluent discharged from the lagoon during the 2024 operating year are summarized in Table 11.

Table 11: Influent and Discharge Volume Summary

Total Influent Volume Sewage	36,897 m³
Total Effluent Discharged	49,556 m³
Precipitation Value	12,659 m³

The waste loadings during the 2024 operating year are summarized in Table 12.

Table 12: Waste Loading Summary

	Spring 2024 (kg)	Fall 2024 (kg)	Total Loading (kg)
TSS	56	143	199
BOD ₅	90	178	268
Pt	0.21	3.52	3.73

Conclusions and Recommendations

The performance of the Washago Sewage Treatment Works during the 2024 operating year had no objective or limit exceedance. To ensure that the seasonal operating capacity of the lagoon is not exceeded, the spring and fall discharges should continue to be scheduled as early in the spring and as late in the fall as a practical way to reduce the length of the winter operating season, when the volume of precipitation accumulation is the greatest and the rate of evaporation is the lowest.

Appendix A Certificate of Approval

Ministry of the Environment Certificate No. 3-0800-82-006.

Certificate of Approval (Sewage)

SANITARY SEWERS

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tario

Whereas TOWNSHIP OF ORILLIA

DEC 1

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:-

the construction of sanitary sewerage works facilities to service the Community of Washago as follows:

STREET	FROM	<u>T0</u>
Quetton Street	Approx. 218 m South of Leith Street	Approx. 29 m North of Leith Street
Quetton Street	Orillia Street (Highway No. 69)	Hamilton Street
Muskoka Street	Approx. 235 m South of Rama Street	Approx. 303 m North of Ramsay Street
Mill Lane	Hamilton Street	Albany Street
Easement	Mill Lane	Approx. 129 m North of Edgar Street
Ramsay Street	Muskoka Street	Approx. 80 m West of Muskoka Street
Edgar Street	Muskoka Street	Approx. 75 m West of Muskoka Street
Edgar Street	Approx. 60 m East of Mill Lane (Easement)	Approx. 100 m East of Mill Lane (Easement)
Albany Street	Muskoka Street	Approx. 75 m West of Muskoka Street
Albany Street	Mill Lane	Approx. 34 m East of Mill Lane (Easement)
		2

Now therefore this is to certify that after due enquiry the said proposed works have been approved

under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this	8th	day of	December
Attn:-Mr. J.B. Mather, Clerk, cc:-Mr. G. Mierzynski, MOE -Reid & Assoc. Ltd. -Mr. W.A.S. Marshall, Pro -Mr. N. Embree, MOE Barr -Mr. J. Toth, Design & E -Mr. W. Brink, Design & E ec	C. Reg. Dir. oject Engrg. ie Office quipment	a	IL MOLT

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Ontario

Ministry of the Environment Continued)

Certificate of Approval (Sewage)

- 2 -

Whereas

of

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:-

<u>SANITARY SEWERS</u> (Cont'd) STREET	FROM	<u>T0</u>
Orillia Street	Approx. 72 m North of Quetton Street	Muskoka Street
Rama Street	Muskoka Street	Approx. 51 m East of Muskoka Street
Easement	Muskoka Street	Quetton Street
FORCEMAINS		
Muskoka Street	Approx. 303 m North of Ramsay Street (Proposed Sewage Pumping Station No.3)	Ramsay Street
Albany Street	Approx. 103 m East of Muskoka Street (Proposed Sewage Pumping Station No.2)	Muskoka Street
Muskoka Street	Approx. 235 m South of Orillia Street (Proposed Sewage Pumping Station No.1)	Orillia Street
Orillia Street	Muskoka Street	Quetton Street
Quetton Street	Orillia Street	Hamilton Street (Easement)
Easement	Hamilton Street	Approx. 1700 m North and N.W. of Hamilton Street (Proposed Waste Stabilization Pond) 3

Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this

8th

day of

December

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05-1 Director

Certificate No. 3-0800-82-006 (Continued)

Ministry of the Environment

Certificate of Approval (Sewage)

- 3 -

Whereas

Ontario

of

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:-

including building sewers from the main sewer to the street line, as shown on the drawing or as may be approved by the operating authority in the future together with three (3) sewage pumping stations as follows:

<u>SEWAGE PUMPING STATION NO.1</u>: to be located on the east side of Muskoka Street approximately 235 m south of Orillia Street and consisting of the construction of a submersible type raw sewage pumping station c/w the installation of two (2) 14.4 L/s @ 15.6 m T.D.H. submersible raw sewage pumps; an emergency forcemain by-pass; an emergency overflow to the Severn River and all necessary appurtenances and controls;

SEWAGE PUMPING STATION NO.2: to be located on the south side of Albany Street approximately 103 m east of Muskoka Street and consisting of a submersible type raw sewage pumping station c/w the installation of two (2) 6.28 L/s @ 8.3 m T.D.H. submersible raw sewage pumps; an emergency forcemain by-pass; an emergency overflow to the Severn River and all necessary appurtenances and controls;

<u>SEWAGE PUMPING STATION NO.3</u>: to be located on the west side of Muskoka Street approximately 303 m north of Ramsay Street and consisting of a submersible type raw sewage pumping station c/w the installation of two (2) 6.76 L/s @ 9.0 m T.D.H. submersible raw sewage pumps; an emergency forcemain by-pass; an emergency overflow sewer to an adjacent watercourse and all necessary appurtenances and controls,

all in accordance with the final plans and specifications prepared by Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including land charges, engineering and contingencies, of NINE HUNDRED FORTY FOUR THOUSAND DOLLARS (\$944,000.00).



Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this

8th

day of

December

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of the Environment Certificate No. .7-0214-83-006.....

Certificate of Approval (Water)

Whereas TOWNSHIP OF ORILLIA

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has applied in accordance with Section 23 of the Ontario Water Resources Act for approval of:-

the construction of watermains as follows:

STREET	FROM	ТО
Quetton Street	Approx. 48 m South of Orillia Street	Orillia Street
Orillia Street	Quetton Street	Approx. 50 m East of Quetton Street (CNR Right-of-Way)
C.N.R. Right-of-Way	Orillia Street	Hamilton Street

including stub watermains and service connections from the distribution main to the street line, as shown on the drawings or as may be approved by the operating authority in the future, all in accordance with the final plans and specifications prepared by Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including engineering and contingencies, of SEVENTEEN THOUSAND DOLLARS (\$17,000.00).

and an even are the family DC.

Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 23 of the Ontario Water Resources Act.

	DATED AT TORONTO this Attn:-Mr. J.B. Mather, Clerk, Tw	29th p. of Orillia	day of	April	19 83
	cc:¥Mr. J. Ferguson, Road Supt				
	-Mr. G. Mierzynski, MOE C.	Reg. Dir.			
	-Reid & Assoc. Ltd.				
	-Mr. W.A.S. Marshall, Proj.	Engra.			
	-Mr. A.J. Forsyth, Proj. En	ara.		- 0	- A CONTRACTOR OF CONTRACTOR O
	-Mr. J. Toth, Design & Equi ec -Mr. W. Brink, Design & Equ	pment		20	
e	ec -Mr. W. Brink, Design & Equ	ipment		and D. O.M.	hard
				Director	0 >
	MOE 0732 9/81				

Ontario	Certificate of Ap (Sewage)	prova or RECEIVED IT -
Whereas	TOWNSHIP OF ORILL	IA
×X		
has applied in accordance with Se	ction 24 of the Ontario Water Resc	ources Act for approval of:-
the construction of sanitary	/ sewage works facilities as	follows:
SANITARY SEWER		
STREET	FROM	TO
C.N.R. Right-of-Way	Hamilton Street	Quetton Street

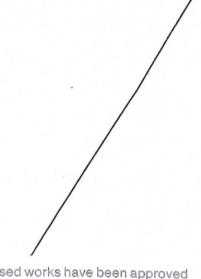
Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this 29th day of Attn:-Mr. J.B. Mather, Clerk, Twp. of Orillia cc:-Mr. J. Ferguson, Road Supt. -Mr. G. Mierzynski, MOE C. Reg. Dir. -Reid & Assoc. Ltd. -Mr. W.A.S. Marshall, Proj. Engrg. -Mr. A.J. Forsyth, Proj. Engrg. -Mr. J. Toth, Design & Equipment -Mr. W. Brink, Design & Equipment /ec

MOE 0731 9/81

Director

April



19 83

including service connections from the main sewer to the street line, as shown on the drawings or as may be approved by the operating authority in the future, all

contingencies, of THIRTY THREE THOUSAND EIGHT HUNDRED DOLLARS (\$33,800.00). -

in accordance with the final plans and specifications prepared by Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including engineering and

Hamilton Street

C.N.R. Right-of-Way FORCEMAIN C.N.R. Right-of-Way

Orillia Street

Ministère de l'Environnement

Certificate of Approval (Sewage) Certificat d'autorisation (eaux usées)

Number / Numéro 3-1459-87-006

Whereas / Attendu que Hope-Smith Lands Limited

Washago, Ontario

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of: a fait, conformément à l'article 24 de la loi sur les ressources en eau de l'Ontario, une demande d'autorisation: Private sanitary pumping station and forcemain to service a commercial development located on Part of Lot 14 and all of Lots 15, 16, 17 & 18 in the Township of Orillia equipped with 2 submersible grinder pumps each rated at 1.9 l/s at a total dynamic head of 6.8m with float switch controls, associated valves, electrical equipment, interconnecting piping, a natural vent, a forcemain and appurtenances.

Street

From

Forcemain

Hamilton St.

Approx. 45m E of Cumberland St.

Quetton St

TO

all in accordance with the revised plans received on August 26, 1987 plans and specifications prepared by Marshall Macklin Monaghan Limited, Consulting Engineers, at a total estimated cost, including engineering and contingencies, of FORTY TWO THOUSAND TWO HUNDRED DOLLARS (\$42,200.00).

> THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE MAILED

Act -16 187 ON ... Wesh (Signed)



Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

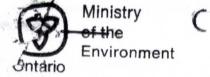
Le présent document certifie qu'après vérification en bonne et due forme la construction dudit projet d'ouvrages a été approuvée aux termes de l'article 24 de la loi sur les ressources en eau de l'Ontario.

16 DATED AT TORONTO this day of DATÉ À TORONTO ce jour d cc: (Mr. J.B. Mather, Clerk, Township of Orillia Mr. A.F. Pelletier, Clerk, County of Simcoe Mr. N. Embree, Chief Approvals and Planning Uni Marshall Macklin Monaghan Limited 12. ...

of the Environment

of / d

Ministry





.../2

Certificate of Approval (Sewage)

Whereas

..... TOWNSHIP OF ORILLIA

XQ

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval ofthe construction of a 4.77 ha two celled seasonal discharge waste stabilization pond to be located approximately 1700 m north and northwest of Hamilton Street -Washago (Part of Lots 10 and 11, Concession XV, Township of Orillia) in a natural rock basin and including an influent structure; four (4) berms; interconnecting piping; and outfall structure and all necessary appurtenances (Total effective storage volume at 1.5 m effective liquid depth = 47,800 m³; BOD loading rate = 8.11 kg/ha/d) with effluent discharge via an existing natural drainage

all in accordance with the final plans prepared by Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including land charges, engineering and contingencies, of ONE HUNDRED THOUSAND DOLLARS (\$100,000.00), subject to the following special terms and conditions which are considered necessary by the undersigned.

SPECIAL TERMS AND CONDITIONS

- (1) The Township will notify homeowners along the Severn River, in the area immediately east of the Highway No. 11 bridge, prior to the discharge of the waste stabilization pond effluent.
- (2) TYPE OF SAMPLE

Grab Sample

a) The waste stabilization pond shall be operated in such a manner and with such facilities as to maintain the following objectives in terms of effluent concentrations and waste loadings:

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Effluent Parameter	Effluent Concentration	Effluent Waste Loading
BOD5	15 mg/L	614 kg
Suspended Solids	20 mg/L	815 kg
Total Phosphorus	1.0 mg/L	41 kg

di. 1. .

Now therefore this is to certify that after due enquiry the said proposed works have been approved

under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this 18th	day of	November	1983
ttn:-Mr. J.B. Mather, Clerk, Twp. of Orillia		November	10 03
cc:-Mr. G. Mierzynski, MOE C, Reg. Dir.			
-Reid and Associates Limited			
-Mr. W.A.S. Marshall, Project Supervisor -Mr. J. Toth, Value Engineering			
-Mr. J. Toth, Value Engineering			
-Mr. C.W. Brink Value Engineering			

Ontario

Certificate of Approval (Sewage)

Whereas

of

- 2 -

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:-Special Terms and Conditions Cont'd.

b) Non-compliance is deemed to occur when any of the following effluent concentrations and/or waste loadings is exceeded based on the analytical results of the sampling programme described in paragraph 2c).

Effluent Parameter	Effluent Concentration	Effluent Waste Loading
BOD 5	25 mg/L	1024 kg
Suspended Solids	25 mg/L	1024 kg
Total Phosphorus	1 mg/L	41 kg

NOTE:

The foregoing effluent waste loading objectives and effluent waste loading non-compliance values are based upon an average daily inflow to the waste stabilization pond of $227.5 \text{ m}^3/\text{d}$ over 180 days and represent the total load discharged to the receiving stream over the discharge period.

c) The minimum sampling programme to be followed in assessing noncompliance of the BOD5, Suspended Solids and Total Phosphorus effluent parameters is as follows:

The waste stabilization pond must be sampled after treatment prior to discharge for checking compliance against the critical parameter (i.e. Total Phosphorus) as noted in Condition 2b).

The waste stabilization pond must be sampled for the effluent parameters noted in Condition 2a) once during discharge and on the final day of discharge.

d) Non-compliance with respect to effluent concentrations is considered to occur when the arithmetic mean of either BOD5, SS or phosphorus concentration of samples collected during the discharge period exceeds the corresponding value as stated in Condition 2b above.

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Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this 18th

day of

19 83

Director

November

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Certificate of Approval (Sewage)

- 3 -

Whereas

of

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of:-

Special Terms and Conditions Cont'd.

e) Non-compliance with respect to effluent waste loadings is considered to occur when the arithmetic mean of either BOD5, suspended solids or phosphorus concentration of samples collected during the discharge period incorporated with the total flow over the discharge period exceeds the corresponding value as stated in Condition 2b above.

NOTE:

The total flow referred to above shall be the total flow registered by the magnetic flow meter at the Main Sewage Pumping Station between the end of one discharge period and the end of the next discharge period.

- f) Procedures related to the sampling programme shall be in accordance with the attached Appendix A.
- (3) A routine sampling and analysis programme shall be implemented and maintained in accordance with the following:

SAMPLE LOCATIONS

- Raw Sewage (Main Sewage Pumping Station Wet Well)
- Final Effluent (Waste Stabilization Pond)

ANALYSIS SAMPLING PARAMETERS

- BOD5
- Suspended Solids
- Total Phosphorus
- Ammonia plus ammonia nitrogen (effluent stream only)

SAMPLING FREQUENCY

Raw Sewage - minimum one (1) grab sample per month Final Effluent - as per Condition 2c above.

Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

DATED AT TORONTO this

18th

day of

November

1983

√an

MOE 0731 9/81

SAMPLE COLLECTION

(a) All equipment coming in contact with the sample shall be clean.

SAMPLE PRESERVATION

- (a) If an automatic sampler is used, it should be located in a shaded area, rather than in direct sunlight.
- (b) The sample itself should be refrigerated at 4° C, if at all possible, throughout the collection period and during the time taken to transport the sample. If plant personnel deliver the samples, a styrofoam cooler can be used for this purpose. Small refreezable ice packs can be placed within the cooler. If, however, the samples must be shipped by courier or express service, it is recommended that a one-day delivery period should be requested.

SAMPLE SIZE

(a) At least one litre of sample from each sampling location should be submitted for the minimum analysis requirements (BOD₅, SS, Ammonia plus Ammonia Nitrogen and Total Phosphorus). If the effluent sample has less than 1 mm of solid matter when settled, or is almost clear when shaken, provide an extra litre of sample.

SUBMISSION OF ANALYSIS

(a) Samples should be submitted for analysis as soon as possible following collection. Sample delivery should ideally be made to the laboratory within 24 hours. Allowances should be made to schedule sampling and delivery to coincide with the days on which the analyses are normally performed.

SAMPLE ANALYSIS AND DATA REPORTING

- (a) If the operating authority wishes to use its own analytical equipment or submit samples to commercial laboratories the operating authority shall still submit samples to the Ministry of the Environment Laboratory for purposes of quality control auditing. Until the capability and accuracy of the plant or other laboratory are known. samples shall be submitted as normally required to the Ministry of the Environment Laboratory. As the capability and accuracy of the plant or commercial laboratory become known, the frequency of sample submission to the Ministry Laboratory may be reduced or possibly eliminated entirely. The frequency of such submissions for quality control auditing shall be as determined in writing by the District Officer, Municipal and Private Abatement, Barrie District Office. To allow comparison of analytical results, samples submitted for quality auditing purposes shall be duplicates of the samples analyzed by the plant or commercial laboratory.
- (b) To satisfy all, or a part of, the analytical requirments, operating authorities using their own facilities or commercial laboratories shall submit copies of the analytical results at least once per month to the District Officer, Municipal and Private Abatement, Barrie District Office.

Appendix "A" Cont'd.

(c) The operating authority shall maintain records of the analysis results for a minimum of five (5) years.

Page 157 of 248





of the Environment

> TO: Mr. J.B. Mather, Clerk Township of Orillia P.O. Box 159, R.R. #4 West Street North Orillia, Ontario L3V 6J3

You are hereby notified that Final Certificate of Approval No. 3-1081-83-006 has been issued to you subject to the conditions outlined therein.

The reasons for the imposition of these conditions are as follows:

Condition 1

Notification of the homeowners is necessary to ensure they are aware of the impending discharge.

Condition 2

The effluent criteria relating BOD₅, Suspended Solids and Ammonia plus Ammonia Nitrogen are being imposed to prevent discharges of inadequately treated sewage. The concentration parameters are compatible with the proposed treatment system under normal operating and loading conditions.

The effluent criteria relating to Total Phosphorus concentration comply with the policy of the Ministry of the Environment to reduce nutrients loading to the Great Lakes Basin so as to minimize the nuisance growth of aquatic plant and algae.

Condition 3

The condition relating to the routine sampling program and analysis is being imposed to ensure that all pertinent data are available for the evaluation of the performance of the system and the water pollution control plant is operated and maintained at the level consistent with the design. You may by written notice served upon me and the

Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board.

This Notice should be served upon:

The Secretary,	The Director,
Environmental Appeal Board,	Section 24, O.W.R. Act,
1 St. Clair Ave. West,	Ministry of the Environment,
5th Floor, AND	135 St. Clair Ave. West,
Toronto, Ontario.	Toronto, Ontario.
M4V 1K7	M4V 1P5

DATED at Toronto

this 18thday of November , 1983.

Director, Section 24, O.W.R. Act, Ministry of the Environment.

Page 158 of 248

Ministère Ministry de Environment l'Environnement et de l'Énergie and Energy

AMENDMENT TO CERTIFICATE OF APPROVAL MUNICIPAL SEWAGE WNSHI WUMBER 3-1081-83-006 Page 1 of 2

NOTICE OF AMENDMENT

To the Applicant:

of the

The Corporation of the Township of Orillia R. R. # 4, Box 159 Orillia, Ontario L3V 6J3

The Applicant is hereby notified that the approval issued under Certificate of Approval No. 3-1081-83-006 dated November 18, 1983 for the construction of a two celled seasonal discharge waste stabilization pond for the Hamlet of Washago on part of Lots 10 and 11, Concession XV, Township of Orillia. is hereby amended as follows:

The Statement, "the magnetic flow meter" of Special Terms and Conditions (2) (e) is hereby revoked;

In substitution for the above revocation, the following is inserted:

"three (3) elapsed time meters with a data logging system and verification of pump rates for the two sewage pumps on a semi-annual basis".

This Notice shall constitute part of the approval issued under Certificate of Approval No. 3-1081-83-006 dated November 18, 1983.

The Applicant may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

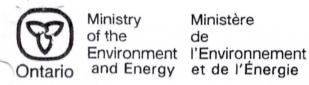
- The portions of the approval or each term or condition in the approval in respect of which the hearing is 1. required, and;
- The grounds on which the Applicant intends to rely at the hearing in relation to each portion appealed. 2.

The Notice should also include:

- 3. The name of the appellant;
- The address of the appellant; 4.
- 5. The Certificate of Approval number;
- The date of the Certificate of Approval; 6.
- 7. The name of the Director;
- The municipality within which the sewage works are located; 8.

And the Notice should be signed and dated by the appellant.

Page 159 of 248



AMENDMENT TO CERTIFICATE OF APPROVAL MUNICIPAL SEWAGE NUMBER 3-1081-83-006 Page 2 of 2

This Notice must be served upon:

The Secretary, Environmental Appeal Board, 112 St. Clair Avenue West, Suite 502, Toronto, Ontario. M4V 1N3

AND

The Director, Section 53, Ontario Water Resources Act, Ministry of Environment and Energy, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario. M4S 1H2

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this

30th day of

June,

1993. W. Gregson, P Eng. Director Section 53 Ontario Water Resources Act

GL/nk

Att: Mr. J. B. Mather, Clerk, Twp. of Orillia cc: Mr. G. Carpentier, Supervisor, Approvals & Pesticides Management Mr. D.G. Carr, P. Eng., Ainley and Associates Ltd.



Ministère de l'Environnement

Certificate of Approval (Sewage) Certificat d'autorisation (eaux usées)

2 1988

Director / Directeur

Number / Numéro 3-0051-86-006

Whereas / Attendu que

TOWNSHIP OF ORILLIA

of / d

has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of: a fait, conformément à l'article 24 de la loi sur les ressources en eau de l'Ontario, une demande d'autorisation:

a new 250 mm diameter polyethylene effluent outfall from the existing two celled seasonal discharge waste stabilization pond located approximately 1700 m north and northwest of Hamilton Street, Washago (Part of Lots 10 and 11, Concession XV, Township of Orillia) consisting of approximately 225 m of Series 45 butt-fused outfall following the existing ground profile together with a gate valve box shut-off terminations at Highway No. 11 immediately north of the Severn River,

all in accordance with the detailed drawing and supporting information prepared by Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including engineering and contingencies, of SEVENTEEN THOUSAND DOLLARS (\$17,000.00).

Now therefore this is to certify that after due enquiry the said proposed works have been approved under Section 24 of the Ontario Water Resources Act.

Le présent document certifie qu'après vérification en bonne et due forme la construction dudit projet d'ouvrages a été approuvée aux termes de l'article 24 de la loi sur les ressources en eau de l'Ontario.

DATED AT TORONTO this 24th day of jour d DATÉ À TORONTO ce Attn: Mr. J.B. Mather, Clerk, Township of Orillia cc: Mr. J.C. Ferguson, Twp. Engineer Mr. G. Mierzynski, MOE C, Reg. Dir. Reid & Associates Ltd.

0731 06/84

261 Attac	ment: Air Approval
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9	REID & ASSOC. LTD.
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2 of The Ontario Water Resources Act f ary sewerage works system f Washago) as follows:	
FROM	TO
rs Rama St. (Hwy. #69)	approx. 500' S. of Rama St. (Proposed Sewage Pumping Station No.2)
approx. 160' N. of Rama St.	approx. 1140' N. of Edgar St.
approx. 300' S. of Hamilton St.	approx. 1700' N. of Hamilton St.
approx. 200' W. of Muskoka St. (Ease- ment)	approx. 300' E. of Muskoka St. (Severn River)
Hamilton St.Easement	Edgar St.
approx. 200' E. of Muskoka St. (proposed Sewage Pumping Station No. 1)	approx. 630' E. of Muskoka St.
Edgar St. (proposed Sewage Pumping Station No. 1)	Hamilton St.
Easement	approx. 400' W. of Muskoka St. (Easement)
Hamilton St.	approx. 1850' N. of Hamilton St. (Proposed Sewage Treatment Plant)
	2261 2261 2261 2261 2261 227 227 227 227 227 227 227 22

continued:

DATED AT TORONTO this

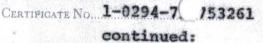
lst

day of

August

19 75

Director .A.





- CONTROL MINISTRY OF THE ENVIRONMENT

SEWAGE WORKS APPRO ate approved.

Whereas

of

- 2 -

has applied in accordance with Section 42 of The Ontario Water Resources Act for approval of: -

construction of a sanitary sewerage works system to serve the Township of Orillia (Community of Washago) (continued: -)

STREET

FROM

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detailed PCr.

when

Proposed Sewage Pumping Station #2

approx. 180' N.

Outfall sewer

Easement

Easement

Proposed Sewage Treatment West Branch of Flant Severn River

including building sewers from the main sewer to the stret line together with the construction of two (2) sewage pumping stations as follows:

Sewage Pumping Station No. 1 - to be located at the west end of Edgar Street approx. 400' N. of Albany St. and to be equipped with two (2) 183 IGPM submersible type raw sewage pumps a standby diesel generator, an emergency overflow to the Severn River and all necessary appurtenances and controls,

Sewage Pumping Station No. 2 - to be located on the south side of Rama St. approx. 150' E. of Muskoka St. and to be equipped with one (1) 81 IGPM submersible type raw sewage pump, an emergency overflow to the adjacent sanitary sewers and all necessary appurtenances and controls,

Sewage Treatment Plant - to be located approx. 1725' N. of Hamilton St. on the E. side of Hwy. #11 (Part Orillia Island, Twp. of Orillia) and consisting of a 50,000 IGPD extended aeration sewage treatment plant c/w influent works, grit channels, an aeration tank, a final clarifier; effluent chlorination; phosphorus removal facilities, a control building and all necessary appurtenances and controls with effluent discharge to the West Branch Severn River, all in accordance with the report prepared Now Uperclore this is to certify that after due enquiry the said proposed works have been approved under Section 42 of The Ontario Water Resources Act.

continued:

DATED AT TORONTO this

lst

day of

August 19 75

Director

1105 10 001 7/70





MINISTRY OF THE ENVIRONMENT

SEWAGE WORKS APPROVAL

Whereas

of

has applied in accordance with Section 42 of The Ontario Water Resources Act for approval of: -

by J.D. Reid and Associates Limited, Consulting Engineers, at a total estimated cost, including land charges, engineering and Contingencies, of FIVE HUNDRED FORTY SIX THOUSAND NINE HUNDRED AND SIXTY DOLLARS (\$546,960.00),

3

PRELIMINARY APPROVAL for purpose of facilitating works herein set out - not to be regarded as fulfilling requirements of this Act. Final certificate will be issued when detailed plans and specifications are approved.

Row Therefore this is to certify that after due enquiry the said proposed works have been approved under Section 42 of The Ontario Water Resources Act.

DATED AT TORONTO this

1st

day of

1975

Director

August

Appendix B

Municipality Monitoring Program Mechanical Plants Forms



Project Name Washapo Lagoon PO Box 1021 Street Name Hurkwood Lane PO Box 159 Municipality/City/Town Oriflia ON - Ontario Postal Code L3V 633 Postal Code L3V 633 Municipality/City/Town 1021 Street Name The Corporation of the Township of Severn PO Box 159 Postal Code L3V 633 Municipality/City/Town Oriflia Street Number Street Name Hurkwood Lane PO Box 159 Municipality/City/Town Oriflia Street Number Street Name Hurkwood Lane Postal Code D31 Postal Code L3V 633 File No. Works Number * Month Year Data Period * Nonth Year 12 12 3 11 50010 3 3 12 13 Total Flow (10 ³ m ³ /d) 50015 3 3 3 12 13 Plant Bypass Volume (10 ³ m ³ /d) 500270 3 3 3 46 12 13 Plant Bypass Volume (10 ³ m ³ /d) 500270 3 3 3 3 3 12 13 Blob_ 1 1 1 1 1 <th>Fields ma</th> <th>arked with a</th> <th>an asterisk (*) are i</th> <th>mandatory.</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Fields ma	arked with a	an asterisk (*) are i	mandatory.								
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12 13 Total Effl. Volume To Watercourse (103 m3) 50280 3 Flow Duration (hours) 81680 1 Cell Depth (m) 50290 1 CBOD ₅ (mg/L) 00002 1 BOD ₅ (mg/L) 00001 1 Suspended Solids (mg/L) 00006 1				1					the Decul			
Flow Duration (hours) B1680 1	39	and the second sec				er Code -		MOI	itniy Result	s	# 01 3	samples
Cell Depth (m) 50290 1 CBOD ₅ (mg/L) 00002 1 BOD ₅ (mg/L) 00001 1 Suspended Solids (mg/L) 00006 1	12 13			and the second se						-		
CBOD ₅ (mg/L) D0002 1 BOD ₅ (mg/L) D0001 1 Suspended Solids (mg/L) D0006 1							1	-		-		
BOD ₅ (mg/L) 00001 1 Suspended Solids (mg/L) 00006 1			54 B		50290		1			-		
Suspended Solids (mg/L) 00006 1					00002		1	-				
		BOD ₅ (m	g/L)		00001		1			_		
		Suspende	d Solids (mg/L)		00006		1			_		
Ammonia + Ammonium (mg/L) 00019 2		Ammonia	+ Ammonium (mg	/L)	00019		2					
TKN (mg/L) 00020 2		TKN (mg	/L)		00020		2					
Total Phosphorus (mg/L) 00033 2		Total Pho:	sphorus (mg/L)		00033							
30 34 35 38 48 51	_	1		:			6.61					
	09					er Code -	- Dec	Moi	nthly Result	S ~	# 01 5	samples
12 13 Chlorine Used (kg as Cl ₂) 50320 1	12 13						1	-	- Interiori	_		
Chlorine Dosage (mg/L as Cl ₂) 80410 1							1			_	-	
Chlorine Residual (mg/L as Cl ₂) 80420		Chlorine F	Residual (mg/L as	-			1			_		
30 34 35 38 48 51					30	100000				2	48	51
Operator Telephone Number Return completed form to: 705-345-1841 1. Environmental Monitoring and Reporting Branch, MECP, at			e Number							oorting	Branch	MECP. at
Operator Email Address * WasteWaterReporting@ontario.ca And			irocs *								oranon, i	neor, at
tdrouin@severn.ca 2. Your Environmental Officer at your local District/Area MECP									-		District/A	rea MECP
Comments Office.												
Page 166 of 248 Ministry Contact Email Address * Peter.Vreugdenhil@ontario.ca		Page	166 of 248									

Page 166 of 248 -----2020



Project Nar Washago	Lagoon										
Facility A											
Unit Numbe	1	Street Number 1021	Street Name Hurlwood La	ine						PO Box 159	
Municipality Orillia	//City/Tow	n		Province ON - O	ntario					Postal C L3V 6J3	
Operating A The Corpo	Authority pration of	the Township o	f Severn							237 033	
Mailing Ac							-				
Unit Numbe	er s	Street Number	Street Name Hurlwood Lar	ne						PO Box	
Municipality, Orillia	/City/Town	n		Province ON - Or						159 Postal Co	de
File No.		Works Num	per *		Data I	Period	d *		Dis	L3V 6J3	Upda
6	1200022			-	nth	-	ear	Day		Type	Cod
1 2	3 11	.15		01	202	4		31		2	R
C.P.				10	15			20	21	22	80
	w Sewage	9	Pa	rameter C	ode -	Dec	- Mont	hly Averag	e Results	- # of s	Sample
12 13											
	L. C. BURGER										
							-				-
						-					
						-	-				
						_					
			30		34	35	38				
	al Effluent		Para	ameter Co	ode -	Dec -	- Month	ly Average	Results	- #ofs	amples
	alinity, Tot		0005	51		1		,	ricound	# 01 3	amples
Con	ductivity 2	25°C (µS/cm)	9100				-	-	-		
E. C	Coli (CT/10)0ml)	9100		- 6	*					-
Nitra	ate. Unfilte	ered reactive (mg				+				_	
		red reactive (mg/l			4						
рH		iou reactive (mg/			4	_	-				
	Deraturo	Water (°C)	8077		4	_					
		monia (mg/L)	80250		4						
Diss	onized An	gen (mg/L)	91012	2	4						
			00003	3	4						- 1.5
Hyar	rogen Sulp	ohide (mg/L)	83008	3	4						
									_		
							-				
					\neg						
			30		L 34 3	5	38				
erator Telep 5-345-1841	ohone Nur 1	nber	- 17		eturn co	mpl	eted for				
erator Email	Address			^{1.}	Waste	Nater Water	Reportion	ing and Re g@ontario	porting Bra	anch, MEC	P, at
ouin@seve	ern.ca			2							
mments				^{2.}	Office.	(Find	your loca	al MECP o	ffice	trict/Area N	
					https://	www.	ontario.ca	venvironm	ent-and-er	nergy/minis	try-
					environ	ment	-district-le	ocator)		0,11110	.,

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Fields marked w	ith an asterisk (*) are mand	latory.					
Project Name							
Washago Lago Facility Addres							
Unit Number	1	reat blance				1	
	1021 Hi	reet Name urlwood Lane	e			PO Box 159	
Municipality/City/ Orillia	Town		Province ON - Ontario	Postal 0 L3V 6J			
Operating Author The Corporation	ity n of the Township of Sev	rern					
Mailing Addres							
Unit Number		reet Name Irlwood Lane	9			PO Box 159	
Municipality/City/ Orillia	Town		Province ON - Ontario			Postal C L3V 6J	
File No.	Works Number *		Data	Period *	Days	Discharge	Update
46 1200	002273		Month 02 202	Year	29	Туре	Code
1 2 3	11		16 19	2	R 80		
C.P.					20 21	22	80
35 Flows			and the Oracle			ĩ	
	ow (10 ³ m ³)		arameter Code	- Dec -	Monthly Results		
I Ulai Fil		500		3 3.	197		
	Daily Flow (10 ³ m ³ /d)	500	15		11		
Maximu	m Daily Flow (10 ³ m ³ /d)	500		3]	
35 Bypass		30	34	35 38		197	
	pass Volume (10 ³ m ³)	502	rameter Code		Monthly Results	# of Occ	urrences
	(hours)			3			
Bulaton	(nours)	8168 30	34	35 38		3	
Raw Sev	wage		rameter Code		Monthly Results	# of Sa	amples
12 13 BOD ₅ (r		0000		0 42		# 01 30	unpies
Suspend	led Solids (mg/L)	0000		0 12		1	-
TKN (m	-	0002			.6	2	
Total Ph	osphorus (mg/L)	0003		1 4.4		1	
	,	30	34	35 38	+	48	51
9 Final Eff			rameter Code	- Dec	Monthly Results	- # of Sa	
12 13 Total Eff	. Volume To Watercourse	(10 ³ m ³) 5028	30	3			
	ation (hours)	8168		1			
Cell Dep	th (m)	5029	90	1			
CBOD ₅	(mg/L)	0000	02	1			-
BOD ₅ (n	ng/L)	0000	01	1			
Suspend	ed Solids (mg/L)	0000	06	1			
Ammonia	a + Ammonium (mg/L)	0001	19	2			
TKN (mg	1/L)	0002	20	2			
Total Pho	osphorus (mg/L)	0003	33	2			
9 Disinfect	ion	30	34	35 38		48	51
	Used (kg as Cl ₂)		ameter Code –	- Dec	Monthly Results	# of Sa	mples
	Dosage (mg/L as Cl ₂)	5032					
	Residual (mg/L as Cl ₂)	8041		1			
	(8042 30	34	1 35 38		48	51
perator Telephon 05-345-1841	e Number			ompleted i	form to: itoring and Reportir		
perator Email Add Irouin@severn.c			Waste	WaterRepo	rting@ontario.ca Ar Officer at your loca	nd	
omments			Office			a District/Area	WECP
Doc	- 168 of 249		Ministry C	ontact Email	Address *		
Page	e 168 of 248		Peter.Vre	eugdenhil@	ontario.ca		



Project Name Washago Lagoon	1.1				
Facility Address					
Unit Number Street Number 1021	Street Name Hurlwood Lan	e			PO Box 159
Municipality/City/Town Orillia	1	Province ON - Ontario			Postal Code L3V 6J3
Operating Authority The Corporation of the Township o					200 000
Mailing Address					
Unit Number Street Number 1021	Street Name Hurlwood Lan	e			PO Box 159
Municipality/City/Town Orillia		Province ON - Ontario			Postal Code
File No. Works Num		Da	ta Period *	Days	L3V 6J3 Discharge Update
46 120002273		Month 02	Year 2024	29	Type Code
1 2 3 11		16 19		20 21	22 R 80
C.P.					
36 Raw Sewage	Para	ameter Code	– Dec – M	onthly Average Re	esults - # of Samples
12 13					
			-		
		-			
			HH		
	30	34	35 38		
39 Final Effluent	Para	meter Code	- Dec - M	onthly Average Re	sults - # of Samples
12 13 Alkalinity, Total (mg/L)	0005:	1	4		
Conductivity 25°C (µS/cm)	91004	4	4		
E. Coli (CT/100ml)	91000)	4		
Nitrate, Unfiltered reactive (mg		2	4		
Nitrite, Unfiltered reactive (mg			4		
рН Tamaaratuu Waxaa (100)	80770		4		
Temperature, Water (°C) Un-ionized Ammonia (mg/L)	80250		4		
Dissolved Oxygen (mg/L)	91012		4		
Hydrogen Sulphide (mg/L)	83008		4		
, <u> </u>	5000	,	4		
	30	34	35 38	12	
Operator Telephone Number 705-345-1841		1. Envi	n completed ronmental Mor	nitoring and Report	ting Branch, MECP, at
Operator Email Address drouin@severn.ca		Wa	asteWaterRepo	orting@ontario.ca	And cal District/Area MECP
Comments		Off	ice. (Find your	local MECP office	
		http	os://www.ontar /ironment-distr	io.ca/environment- ict-locator)	-and-energy/ministry-





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Fields marked wit	h an asterisk (*) are n	nandatory.								
Project Name Washago Lagoo										
Facility Addres										
Unit Number	Street Number	Street Name							PO Box	
Municipality/City/T		Hurlwood L	-						159	
Orillia			Provin ON -	Ontario					Postal C L3V 6J	
Operating Authorit The Corporation	of the Township of	Severn								
Mailing Address			-							
Unit Number	Street Number 1021	Street Name Hurlwood La	ane						PO Box 159	
Municipality/City/T Orillia	own		Provin ON -	ce Ontario					Postal C	
File No.	Works Number	er *			Period *		Days	Disch	harge	Updat
46 1200	02273		03	Month 3 202	Yea	r	31	Ty 2	rpe	Code
123	11			6 19			20 21		2	R 80
C.P.										
35 Flows		Г	Parame	ter Code	- Dec	- Mor	thly Results			
	w (10 ³ m ³)		0010		3		inity Results	-		
	Daily Flow (10 ³ m ³ /d)		0015		-	4.164		-		
	Daily Flow (103 m ³ /c	E F	0015		3	0.134		-		
		-y p 3		34	3	38		46		
35 Bypass			Parame	ter Code	100		thly Results		t of Occ	urrences
12 13 Plant Byp	ass Volume (103 m3)	5	0270		3		,	٦F		
Duration	(hours)	8	1680		1	-				
		30)	34	35	38				
36 Raw Sew 12 13 BOD- (m		-	Parame	ter Code	- Dec	- Mon	thly Results	1.00	# of Sa	mples
0005 (11		O	0001		0	132		1		
	ed Solids (mg/L)	0	0006		0	98		1		
TKN (mg		-	0020		2	26.5		1		
Total Pho	sphorus (mg/L)		0033		1	2.7		1		
39 Final Effl	uent	30		34 ter Code -	35 Dec	38 Mon	the Donulto	48	4 -1 0	5
	Volume To Watercou			ter obde		WOI	thly Results	-	# of Sa	mples
	ition (hours)	_	1680		3 1					
Cell Depth		-	0290		1			-		
CBOD ₅ (I	5	-	0002		1				-	
BOD ₅ (m	g/L)	-	0001		1			┥┝╴		
Suspende	d Solids (mg/L)		0006		1					
Ammonia	+ Ammonium (mg/L)		0019		2					
TKN (mg/	'L)		0020		2			┥┝╴	-	
Total Phos	sphorus (mg/L)		0033		2					
)9 Disinfecti		30		34	35	38		48		5
	lsed (kg as Cl ₂)			er Code -	- Dec	Mont	hly Results	-	# of Sa	nples
	osage (mg/L as Cl ₂)		0320		1	-				
	esidual (mg/L as Cl ₂)	8	420		1			1 -		-
Operator Telephone	Number	30		34 Return c	35	38	to:	48		5:
705-345-1841				1. Environ	mental	Monitorin	g and Repor	ting Brai	nch, ME	CP, at
Operator Email Addr drouin@severn.ca				Waste	eWaterR	eporting(@ontario.ca cer at your lo	And		
Comments				Office	•					
Page	170 of 248			Ministry C Peter.Vre	ontact E	mail Add	ress *			
0015 (0000(10) C. C. C.	ala Deintas fas Ontasia 2020			r cter.vie	aguen	meronita	no.ca			



Project Mashag	Name go Lagoon										
*	Address										
Unit Nur	mber	Street Number 1021	Street Name Hurlwood La							PO Box 159	
Municipa Orillia	ality/City/To	wn		Provinc ON - 0	e Ontario					Postal C L3V 6J	
Operatin The Co	ng Authority	of the Township of	Severn								
	Address										
Unit Nun	nber	Street Number 1021	Street Name Hurlwood La	ane						PO Box 159	
Municipa Orillia	ality/City/To	wn		Provinc ON - 0	e Ontario					Postal C L3V 6J	
File No.		Works Num	per *		Dati Ionth	a Perioo Ye	d * ear	Days		harge ype	Update Code
46	12000	2273		03		024		31	2		R
1 2	3 1	1		16	19			20 21		22	80
C.P.	1										
36	Raw Sewa	200	L .	arameter	Code		14000		a su des		a
12 13	naw Sewa	age	F	alameter	Code	- Dec	- Mont	hly Average F	results	- #0	Samples
	2 M.					-				-	
				-		_				-	
						_					
						-	-			-	
							-			_	
				-			-		_		
						Н					
							-				
	L										
			30		34	35	38				
39	Final Efflu		Р	arameter	Code	- Dec	- Mont	hly Average R	esults	- # of	Samples
12 13		Total (mg/L)	00	051		4					
		ity 25°C (µS/cm)	91	004		4					
	E. Coli (C1			000		4					
	Nitrate, Ur	filtered reactive (m	g/L) 00	022		4					
		filtered reactive (mg	/L) 00	021		4					
	рН		80	770		4					
		ure, Water (°C)		250		4					
		Ammonia (mg/L)		012		4					
		Oxygen (mg/L)	00	003		4					
	Hydrogen	Sulphide (mg/L)	830	800		4	_				
				-			_				
									8	85	
0	-		30		34	35	38				
705-345					1. Envi	ronmen	pleted fo	oring and Rep	orting Br	anch, M	ECP, at
Operator tdrouin@	Email Add	ress						ing@ontario.c			
Commen					Off	ice. (Fir	nd your lo	Officer at your cal MECP offi .ca/environme	ce:		
							ent-district		n anu-e	nergynn	initian y-



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Washago Lagoon									
Facility Address						1000	-		
10	eet Number 21	Street Name Hurlwood L						PO 159	Box
Municipality/City/Town Orillia			Provin ON -	ontario					tal Code 6J3
Operating Authority The Corporation of the	e Township of	Severn						201	000
Mailing Address									
Unit Number Stre 102	eet Number 21	Street Name Hurlwood La						PO 159	
Municipality/City/Town Orillia			Provin ON -	ce Ontario				Post	al Code 6J3
File No.	Works Numb	er *	ÌΓ	Data Month	Period *		Days	Discharg	e Update
46 120002273	3		04		Yea 24	r	30	Type 2	Code
1 2 3 11			1	6 19			20 21	22	80
C.P.		_			24				
35 Flows			Parame	eter Code	- Dec	- Mor	thly Results		
12 13 Total Flow (10	³ m ³)		50010		3	5.289		-	
Average Daily	Flow (10 ³ m ³ /d)	6	0015		3	0.176		-	
Maximum Daily	Flow (103 m3/	d) 6	0020		3	0.210		-	
		3		34	35	38		46	
Bypass		_	Parame	ter Code	Dec.	Mon	thly Results	- # of	Occurrences
Fiant bypass v		5	0270		3				
Duration (hour:	5)	8	1680		1				
6 Raw Sewage		30	-	34	35	38			
¹² ¹³ BOD ₅ (mg/L)		-		ter Code	- Dec.	Mon	thly Results	- # c	f Samples
Suspended Sol	de (mall)		0001		0	235		1	
TKN (mg/L)	us (mg/L)	-	0006		0	197		1	
		-	0020		2	57		1	
Total Phosphore	us (mg/L)	0	0033		1	3.4		1	
9 Final Effluent				34 er Code -	35 Dec	38 Man	thly Results	48	5
¹² ¹³ Total Effl. Volun	e To Watercou	rse (103 m3)	0280	0000		WOT	inly Results	- #o	f Samples
Flow Duration (15	1680		3			-	
Cell Depth (m)		-	0290	-	1			-	
CBOD ₅ (mg/L)			0002		1		-	- I r	
BOD ₅ (mg/L)			0001		-				
Suspended Soli	ds (mg/L)		0001	_	1	-			
Ammonia + Amr			0019		1			-	-
TKN (mg/L)	,	-	0020		2				
Total Phosphoru	s (ma/L)		0033		_	-			
	- (30	1033	34	2	38		48	51
Disinfection		F	Paramet	er Code -			hly Results		Samples
2 13 Chlorine Used (50	320		1				P. au
Chlorine Dosage		80	410		1			1	
Chlorine Residua	al (mg/L as Cl ₂)	80	420	34	1	38			
perator Telephone Numb 05-345-1841	ber	50		Return c	omplet	ed form		48	51
perator Email Address * rouin@severn.ca				Waste	WaterR	eporting	g and Report @ontario.ca /	And	
omments				2. Your Er	ivii onme	ental Offic	er at your lo	cal District/A	rea MECP
D- 47	2 - 4 - 4 -			Ministry C	ontact E	mail Add	ress *		
Page 17	<u>2 of 248</u>			Peter.Vre	ugdent	nil@onta	rio.ca		



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Project Washa	Name Igo Lagoor	n														
Facilit	y Address	3	9													
Unit Nu	mber	Street Number 1021	Street Name Hurlwood La	ine											O Box 59	
Municip Orillia	ality/City/To	own			ovince N - O	ntario)								ostal C 3V 6J3	
Operati The Co	ng Authority	y of the Township o	f Severn													
	Address							-	-		-					-
Unit Nu	mber	Street Number 1021	Street Name Hurlwood La	ne											D Box	
Municip Orillia	ality/City/To	nwo			vince N - O	ntario	,								ostal C 3V 6J3	
File No.		Works Num	ber *	1		Da		Perio			Γ	Days		scha	rge	Update
46	12000	02273			04	onth	202	-	rea	u	30		14	Тур 2		Code R
1 2		11			16	19	202	4			20		1	22	J	80
C.P.]															
36	Raw Sew	age	P	aram	neter	Code]	Dec	-[Month	ly Ave	erage	Results]-	# of	Samples
12 13						_]					_				
						-										
					-	-		-					-			
							1	-								
	-											-	-			
						-	1		1					1		
							1		1					1		
							1		1					1		
			30			34	1	35		38						
39	Final Efflu	ient	Pa	aram	neter (Code	-	Dec]-	Month	ly Ave	erage I	Results	1-	# of	Samples
12 13		Total (mg/L)	000)51		-	1	4	1							
	Conductiv	rity 25°C (μS/cm)	910	004			1	4						1		
	E. Coli (C	T/100ml)	910	00				4	1					1		
	Nitrate, U	nfiltered reactive (m	g/L) 000	22				4						1		
		filtered reactive (mg	g/L) 000	21				4								
	рН		807					4								
		ure, Water (°C)	802	-				4								
		d Ammonia (mg/L) Oxygen (mg/L)	910	-				4								
			000					4					_			
	Hydrogen	Sulphide (mg/L)	830	80				4			_					
						-		_							-	
								-								
				-				-							-	
					-	10	11	-								
	L		30			34		35		38						
Operator 705-345	Telephone	e Number							12	eted for I Monitor			oorting	Bran	ch M	CP at
	Email Add									Reportin				- ar	STI, IVIE	.or , at
	@severn.c	a				2. Yo		Envir	onr	nental O	fficer	at you	r local [Distri	ct/Area	MECP
Commer	nts					h	ttps	://ww	ww.	your loc ontario.c	a/env	ironme		-ene	rgy/mi	nistry-
	Det	470 - 1040		_		e		onin	Citt	ulatifut-l	Judit	·/				
Save F	-ormage	173 0 248	Print Form												Cle	ar Form



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Project Name								x		
Washago La Facility Add										
Unit Number	0150 300 km k k k k k k k k k k k k k k k k k	Street Name Hurlwood L							PO Box 159	
Municipality/C	City/Town		Province ON - Ont	ario					Postal C L3V 6J	
Operating Au The Corpora	thority ation of the Township	of Severn								
Mailing Add									141	
Unit Number	Street Number 1021	Street Name Hurlwood L					3		PO Box 159	
Municipality/0 Orillia	City/Town		Province ON - Ont	tario				_	Postal C L3V 6J	
File No.	Works Nur	nber *	Mor		ta Period * Yea	,	Days	D	ischarge Type	Update Code
4 6	1 2 0 0 0		3 0	5	2 0	2 4	3 1		2	R 80
1 2	3		11 10			19	20 21		22	
C.P.			Parameter	Code	Dec.	M	onthly Result	s		
40.40	ws al Flow	(10 ³ m ³)	5001		3	-	3.8	_		
	erage Daily Flow	(10 ³ m ³ /d)	5001		3		0.1	24		
	ximum Daily Flow	(10 ³ m ³ /d)	5002	0	3					
			30		34 35	38		46		
	pass	(4022)	5027	0	- F			-	# of Occ	currences
Fid	nt Bypass Volume ration	(10 ³ m ³)	8168	-	3	-		-		
Dur	ration	(hours)	30	1.2	34 _ 35					
3 6 Ray	w Sewage				#	p			# of S	amples
12 13 BO	D ₅	(mg/L)	0000)1	0		2	18		1
Sus	spended Solids	(mg/L)	0000	6	0	_		96		1
ткі		(mg/L)	0002	1.721	2		44.	-		1
Tot	al Phosphorus	(mg/L)	0003		34 35	38		4.8	48	1
3 9 Fin	al Effluent				· # ·					
	al Effl. Volume To Wate	rcourse (103 m ³)	5028	80	3		24.8	313		
Flo	w Duration	(hours)	8168	80	1		19	8.0		
	ll Depth	(m)	5029		1					
	OD ₅	(mg/L)	0000	200	1					
BO	57 IN 1978 IN 1989 IN 1989 IN	(mg/L)	0000		1			4.0		4
	spended Solids	(mg/L)	0000		1	-		2.5		4
	imonia + Ammonium	(mg/L)	0001	A.24	2	-	12.25	.47		4
TK		(mg/L)	0002		2			.02		4
101	tal Phosphorus	(mg/L)	30		34 35	38	U	.21	48	51
0 9 Dis	sinfection				#	1				
12 13 Ch	lorine Used	(kg as Cl ₂)	5032	20	1					
Ch	lorine Dosage	(mg/L as Cl ₂)	-		1					
Ch	lorine Residual	(mg/L as Cl ₂)	Contraction of the second second	20	34 35				48	51
			30	Pot	34 35 Jrn comp	38 loted fr	orm to:		48	51
Operator Tel 705-345-18	lephone Number 341			1. E	Environme	ntal Mor	nitoring and F			, MECP, at
Operator Err	nail Address *			2. 1	our Enviro	onmenta	ting@ontario al Officer at y			Area
Comments				1	MECP Office		Addesse			
_					stry Contac r.Vreugde		Address * ontario.ca			



Project N Washad	lame lo Lagoon	1															
	Address	ka															
Unit Nun		Street Number 1021	Street Nar Hurlwood											PC) Box		
Municipa Orillia	lity/City/To	own		Provinc ON - C		ario									stal C		
Operatin The Cor	g Authority	of the Township of	of Severn														
	Address															2	
Unit Nun		Street Number 1021	Street Nar Hurlwood											PC	D Box		
Municipa Orillia	lity/City/To	own		Provinc ON - C		ario									stal C		
File No.		Works Num	ber *		/lon	100	ita F	Perio	d * 'ear			ays		cha Type	rge		date ode
4 6	1	2 0 0 0	2 2 7	3 0)	5	2	0	2	4	3			2		T	R
C.P.	3]			11 16	0					19	20	21		22			
3 6	Raw Sew	age		Parameter	r Co	ode		Dec		Month	ly Ave	rage F	Results]₿	# of	Sam	oles
12 13						_											
						<u></u>											
							┥╽		┥┝						-		_
														1			
				30		34	ון	35	38								
20	Final Efflu	ient		Parameter	r C.	odo	1	Dec		Month		rago 6	Results	1	# 0	fSam	
3 9 12 13	Alkalinity,		(mg/L)	0005	_	oue	1	4		vionun	ly Ave	1922	2.5000		#0	Sam	4
	Conductiv		(Ing/L) (µS/cm)	9100	-	_	┥╽	4	┥┝			11.	2.3000				4
	E. Coli	/ity 20 C	(CT/100ml)	9100	_		┥╽	4	┥┝								
		nfiltered reactive	(mg/L)	0002	-		┥╽	4	┥┝	de comencia d							
		filtered reactive	(mg/L)	0002				4	┥┝								_
	pH	Intered reactive	(119/2)	8077	_		$\left\{ \right\}$	4		-			7.0400				4
	•360.1971	ure, Water	(°C)	8025	1.00		$\left\{ \right\}$	4	┥┝				3.0000				4
		d Ammonia	(mg/L)	9101				4					0.0100	-			3
	Dissolved		(mg/L)	0000	1.1.1.1			4					0.0100				
		Sulphide	(mg/L)	8300				4									
																	-
							1 1		+						-		-
	L			30		34	ļ	35	38					J			
Operator 705-345	Telephon -1841	e Number								ed fo I Moni			eportin	a Br	anch	MEG	P. at
Operator	Email Add					V	Vast	teWa	aterR	eporti	ng@o	ntario.	ca And				
Commer		<i>a</i>			-l'	2. Y M	AEC	PO	ffice.	(Find	your le	ocal M	ECP of	fice	: https	s://	
	0.00 ⁵					v	www	.onta	ario.c		ronme	ent-and	d-energ				



Fields ma	arked with	an asterisk (*) are n	nandatory.								
Project N Washag	lame Jo Lagoon										
Facility	Address										
Unit Num	nber	Street Number 1021	Street Name Hurlwood L							PO Box 159	
Municipa Orillia	lity/City/To	wn		Province ON - Or						Postal C L3V 6J	
	g Authority poration c	of the Township of	Severn								
Mailing	Address										
Unit Num	nber	Street Number 1021	Street Name Hurlwood L							PO Box 159	-
Municipa Orillia	lity/City/To	wn		Province ON - Or						Postal C L3V 6J	
File No.		Works Numb	per *	Mo	Data Pe	eriod * Year		Days		charge ype	Update Code
46	12000	2273		06	2024			30	1	2	R
1 2	3 1	11		16	19			20 21		22	80
C.P.	1										
	_			Paramete	Code	Dec -	Mo	nthly Results			
35 12 13	Flows				r Code -				<u>`</u>		
12 15	Total Flow	a commente		50010		3	2.407	_	_		
	Average D	Daily Flow (10 ³ m ³ /c	d)	50015		3	0.08				
	Maximum	Daily Flow (103 m ³		50020		3					
	1			30	34	35	38	ului Dana ku	46 Г		
35 12 13	Bypass		-	Paramete	r Code	Dec.	MO	nthly Results		# of Oc	currences
12 13	0 5.4	ass Volume (10 ³ m	3)	50270		3	-		44		
	Duration	(hours)		81680		1					
26	1			30 Paramete	34 1 Codo	35 Dec	38 Mo	nthly Results	- Γ	# of S	Samples
36 12 13	BOD ₅ (m	-			r coue		_	Riny Result		# 01 3	ampies
				00001		0	218		- 8		
	- and and	ed Solids (mg/L)		00006		0	196				
	TKN (mg			00020		2	44.7		_ 6		
	Total Pho:	sphorus (mg/L)		00033	34	1 35	4.8 38				51
39	Cincl Eff			30 Paramete		. Dec		nthly Results		-	Samples
	Final Effl	Volume To Waterco	ource (103 m3)	11	1 Obuc			inity reduce		11 01 2	rentpress
						3	-		-		
		ation (hours)		81680		1			-		
	Cell Depth	10 10 10 10 10 10 10 10 10 10 10 10 10 1		50290		1	-		- I r		
	CBOD ₅ (00002		1			- + +		-
	BOD ₅ (m			00001		1					
		ed Solids (mg/L)		00006		1				-	
		+ Ammonium (mg/	(L)	00019		2					
	TKN (mg			00020		2	-		4		
	Total Pho	sphorus (mg/L)		00033		2					
00				30 Paramete	34 r Code -	35 Dec	38 	nthly Results		8	51 Samples
09 12 13	Disinfect	Jon Used (kg as Cl ₂)			i coue	Dec.	140	nuny result		tr OI a	ampies
		-	13	50320		1	-		-		
		Dosage (mg/L as C	-	80410		1	-		-		
	Chionne	Residual (mg/L as (-12)	80420 30	34	1 35	38		Ц	8	51
0	Talaat	a blombar		30	Return c			m to:	4	•	51
Operator 705-345	Telephone 5-1841	eNumber						ing and Rep	ortina F	Branch, M	MECP. at
-	r Email Add	dress *						g@ontario.c			
	@severn.c						nental O	fficer at your	local D	istrict/Ar	ea MECP
Commer	nts				Office						
	Page	176 of 248			Ministry C Peter.Vre						



Project N Washag	Name go Lagoon									
-	Address									
Unit Nur		reet Name urlwood Lan	e						O Box 59	
Municipa Orillia	ality/City/Town		Province ON - O						ostal Co 3V 6J3	
Operatin The Co	g Authority rporation of the Township of Sev	ern								
	Address									
Unit Nun		reet Name Irlwood Lan	е						O Box	
Municipa Orillia	ality/City/Town	1	Province ON - O						ostal Co 3V 6J3	
File No.	Works Number *			Data I	Period Ye		Days	Discha		Update
46	120002273		06	202	30.62	ar	30	7 2		Code
1 2	3 11		16	19	-4	_	20 21	22	1	R 80
C.P.				2						
36	Raw Sewage	Par	ameter (Code -	Dec -	- Month	ly Average Res	ults –	# of \$	Samples
12 13										
			-	-	H			_		
				_	Н			_	-	
			-	-	\square			_		
				_	\vdash	-		_		
				-	-	-				
		30		34	35	38				-
39	Final Effluent	Par	ameter (- abo	Dec -	- Month	ly Average Res	ulte -	# of \$	Samples
	Alkalinity, Total (mg/L)	0005	1111085.00	Joue		WORL	ily Average Res		# 01 3	ampies
	Conductivity 25°C (µS/cm)	9100			4				<u> </u>	
	E. Coli (CT/100ml)	9100	_	-	4	_		-		
	Nitrate, Unfiltered reactive (mg/L)	0002		-	4			_	<u> </u>	
	Nitrite, Unfiltered reactive (mg/L)	0002		-	4			-		
	рН	8077			4					
	Temperature, Water (°C)	8025			4	-		-		
	Un-ionized Ammonia (mg/L)	9101			4					
	Dissolved Oxygen (mg/L)	0000)3		4					
	Hydrogen Sulphide (mg/L)	8300	8		4					
Operator	Tolophone Number	30		34 Return	35 comn	38 leted fo	rm to:			
705-345				1. Enviro	nment	al Monito	ring and Report		nch, ME	CP, at
	Email Address Severn.ca						ng@ontario.ca		iot/Area	MEGR
Commen				Offic	e. (Fin	d your loo	Officer at your lo cal MECP office ca/environment-	2		
						nt-district-		and-cill	agynni	July-



Project Name		mandatory.								
Washago L	-									
Facility Ad										
Unit Number	Street Number 1021	Street Name Hurlwood La	ane					PC 15	Box 9	
Municipality/ Orillia	City/Town		Provine ON -	ce Ontario					stal Code V 6J3	6
Operating Au The Corpora	uthority ation of the Township o	f Severn			*					
Mailing Ad										
Unit Number	Street Number 1021	Street Name Hurlwood La	ine					PC	Box 9	
Municipality/(Orillia	City/Town		Provinc ON - 0	ce Ontario					stal Code V 6J3	
File No.	Works Num	ber *		Data	Period *		Days	Discha	rge U	Jpdate
46	120002273			Nonth	Year			Туре		Code
1 2	3 11		07		4	-	31 20 21	2		R
C.P.			-				20 21			80
0.000		Г						-		
12 13 Tot		H	S. J. Lawrence and Market	ter Code	- Dec	- Moi	nthly Results	4		
1018	al Flow (10 ³ m ³)	_	0010		3	2.672				
	rage Daily Flow (103 m3/		0015		3	0.086				
Max	kimum Daily Flow (10 ³ m ²		0020		3					
5 Byp	ass	30		34	35	38		46		_
	nt Bypass Volume (103 m		0270	ter Code		MOI	nthly Results	- # C	of Occurrent	nces
	ation (hours)				3					
Dura	adon (nours)	8. 30	1680	34	1 35	38				
6 Rav	v Sewage			ter Code -			thly Results	#	of Sampl	oc
	D ₅ (mg/L)	0	0001		0	215	,	م ا	oroump	
Sus	pended Solids (mg/L)		0006		0	134				
	l (mg/L)	-	0020	i i	2	53.5		1		
	al Phosphorus (mg/L)	-	0033		1	5.5		-		
		30		34	35	38		48		5
	al Effluent			ter Code	- Dec	Mor	thly Results	- #	of Sampl	es
12 13 Tota	l Effl. Volume To Waterco	ourse (103 m3) <mark>5</mark> (0280		3			1		
	Duration (hours)		1680		1			1		
Cell	Depth (m)	50	0290		1			1		
)D ₅ (mg/L)	00	0002		1					
BOD	0 ₅ (mg/L)	00	0001		1					
Susp	pended Solids (mg/L)	00	0006		1					_
Amn	nonia + Ammonium (mg/	L) DO	0019		2					
TKN	(mg/L)	00	0020		2					
Tota	l Phosphorus (mg/L)	00	0033		2					
		30		34	35	38		48		51
	nfection	_		er Code -	- Dec	Mon	thly Results	- #	of Sample	8S
	rine Used (kg as Cl ₂)	. –	0320		1					
	rine Dosage (mg/L as Cl		0410		1			I		
Chio	rine Residual (mg/L as C	¹ 2) <u>80</u> 30	420	34	1 35	38		48		51
perator Teler 05-345-184	phone Number 1			Return o	comple	ted form	n to: ng and Repor			
perator Emai drouin@seve	il Address *			Wast	eWaterF	Reporting	@ontario.ca	And		
Comments	united			2. Your E		ental Off	icer at your lo	cal Distric	vArea ME	:CP
				Ministry C	Contact E	Email Ad	dress *			
	age 178 of 248			Peter.Vr	eugden	hil@onta	ario.ca			



Project Name Washago Lagoon			
acility Address			
1021	Street Name Jurlwood Lane		PO Box 159
/unicipality/City/Town Drillia	Province ON - On	ario	Postal Code L3V 6J3
operating Authority The Corporation of the Township of Se	vern		
lailing Address			
nit Number Street Number S	treet Name Jurlwood Lane		PO Box
unicipality/City/Town rillia	Province ON - Ont	ario	159 Postal Code
le No. Works Number *		Data Period *	L3V 6J3 Discharge Upda
120002273	Mont	i i cai	Type Cod
2 3 11	07	2024 31 9 20 2	2 R
C.P. Raw Sewage	Parameter Co	de – Dec – Monthly Average	e Results - # of Sample
13			
	30	34 35 38	
Final Effluent	Parameter Coo	e – Dec – Monthly Average	Results - # of Samples
¹³ Alkalinity, Total (mg/L)	00051	4	
Conductivity 25°C (µS/cm)	91004	4	
E. Coli (CT/100ml)	91000	4	
Nitrate, Unfiltered reactive (mg/L)	00022	4	
Nitrite, Unfiltered reactive (mg/L)	00021	4	
рН	80770	4	
Temperature, Water (°C)	80250	4	
Un-ionized Ammonia (mg/L)	91012	4	
Dissolved Oxygen (mg/L)	00003	4	
Hydrogen Sulphide (mg/L)	83008	4	
		┥┝┥┝───	
		┥┝┨┝────	
		┥┝┨┝────	
		┥├┨┝────	
		┥┝┫┝────	
	30	 34 35 38	
ator Telephone Number 345-1841	Re	turn completed form to:	
ator Email Address		nvironmental Monitoring and Rep WasteWaterReporting@ontario.c	ca And
uin@severn.ca	2. Y	our Environmental Officer at you	r local District/Area MECP
ments		Office. (Find your local MECP off https://www.ontario.ca/environme	fice:
		environment-district-locator)	m-and-energy/ministry-

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Fields marked with an asterisk (*) are mandatory.								
Project Name Washago Lagoon								
Facility Address								
Unit Number Street Number Street Name 1021 Hurlwood L							PO Box 159	¢
Municipality/City/Town Orillia	Province ON - O						Postal (L3V 6J	
Operating Authority The Corporation of the Township of Severn								
Mailing Address								
Unit Number Street Number Street Name 1021 Hurlwood L							PO Box	¢
Municipality/City/Town Orillia	Province ON - O						Postal (_3V 6J	
File No. Works Number *		Data Po	eriod * Year		Days		narge pe	Update Code
46 120002273	08	2024			31	2	<u> </u>	R
1 2 3 11	16	19	_		20 21	2	2	80
					1990			
C.P.	-					٦		
35 Flows	Paramete	er Code -	Dec -	Mor	thly Results			
¹² ¹³ Total Flow (10 ³ m ³)	50010		3	2.174				
Average Daily Flow (10 ³ m ³ /d)	50015		3	0.07				
Maximum Daily Flow (103 m3/d)	50020		3					
	30	34	35	38	4	6		
35 Bypass	Paramete	r Code -	Dec.	Mor	thly Results		# of Oc	currences
12 13 Plant Bypass Volume (10 ³ m ³)	50270		3					
Duration (hours)	81680		1					
	30	34	35	38				
36 Raw Sewage	Paramete	r Code -	Dec	Mor	thly Results	100	# of 9	Samples
12 13 BOD ₅ (mg/L)	00001		0	391		1		
Suspended Solids (mg/L)	00006		0	94		1		
TKN (mg/L)	00020		2	47.9		1		
Total Phosphorus (mg/L)	00033		1	5		1		
	30	34	35	38		48		51
39 Final Effluent	A Contraction of the second	r Code -	Dec	Mor	thly Results		# of 5	Samples
12 13 Total Effl. Volume To Watercourse (103 m3)	50280		3					
Flow Duration (hours)	81680		1					
Cell Depth (m)	50290		1					
CBOD ₅ (mg/L)	00002		1			1 [
BOD ₅ (mg/L)	00001		1					
Suspended Solids (mg/L)	00006		1			1 Г		
Ammonia + Ammonium (mg/L)	00019		2			1 Г		
TKN (mg/L)	00020		2			1 [
Total Phosphorus (mg/L)	00033		2			1 Г		
	30	34	35	38		48		51
09 Disinfection	Paramete	r Code	Dec.	Mon	ithly Results		# of 5	Samples
12 13 Chlorine Used (kg as Cl ₂)	50320		1					
Chlorine Dosage (mg/L as Cl ₂)	80410		1	()		_		
	80420		1					
	30	34	35	38		48		51
Operator Telephone Number 705-345-1841			mental	Monitori	ng and Repor		anch, M	MECP, at
Operator Email Address * tdrouin@severn.ca					g@ontario.ca ficer at your lo		trict/A-	A MECD
Comments		Office					ALCO AL	
		Ministry C						
Page 180 of 248		Peter.Vre	eugden	hil@ont	ario.ca			Dana of



Facility Address Unit Number Street Number 1021 Street Name Hurlwood Lane PO Box 159 Municipality/City/Town Orillia Province ON - Ontario Postal Code L3V 6J3 Operating Authority The Corporation of the Township of Severn PO Box 139 Mailing Address PO Box 159 Unit Number Street Number 1021 Street Name Hurlwood Lane PO Box 159 Municipality/City/Town Orillia Street Name Hurlwood Lane PO Box 159 Municipality/City/Town Orillia Province ON - Ontario Postal Code L3V 6J3 File No. Works Number * Data Period * Month Days 31 Discharge Type Upp Co 46 120002273 3 11 2 R	Project Name Washago Lagoon									
IO21 Hurkwood Lane PO Box Municipality/City/Town Province ON - Ontario Postal Code L3V 6J3 Operating Authority The Corporation of the Township of Severn Mailing Address PO Box Municipality/City/Town Street Name Hurkwood Lane PO Box Municipality/City/Town Street Name Hurkwood Lane PO Box Municipality/City/Town Province ON - Ontario Postal Code IS9 Municipality/City/Town Province ON - Ontario Postal Code IS9 File No. Works Number * Month Year 1 2 3 11 16 19 20 21 2 C.P. Raw Sewage Parameter Code — 12 13										
Orillia ON - Ontario L3V 633 Operating Authority The Corporation of the Township of Severn Mailing Address Unit Number Street Number Street Name PO Box 12 12 3 11 Povince Postal Code Orillia Province ON - Ontario Postal Code Postal Code I 2 3 11 Postal Code Postal Code I 12 3 11 Postal Code Postal Code I 2 3 11 I2 I2 I2 I2 I2 I 2 31 I2 <			ame od Lane							
The Corporation of the Township of Severn Mailing Address PO Box Unit Number Street Number Isg 1021 Hurlwood Lane Postal Code Orillia ON - Ontario Postal Code Image: Street Number On - Ontario Days Discharge Virillia Vorks Number * Month Year Image: Street Number Image: Street Number 46 120002273 Image: Street Number Number * Month Year Image: Street Number Number Image: Street Number Number Number * Image: Street Numb	Municipality/City/Town Orillia									
Unit Number Street Number 1021 Street Name Hurlwood Lane PO Box 159 Municipality/City/Town Orillia Province ON - Ontario Postal Code L3V 6J3 File No. Works Number * Month Year Data Period * Nonth Year Days 31 Discharge Type Up Cd 46 120002273 08 2024 31 2 2 R 36 Raw Sewage Parameter Code - Dec Monthly Average Results - # of Samp 12 13	Operating Authority The Corporation of the Town	nship of Severn								
IO21 Hurtwood Lane PO 50 Municipality/City/Town Province ON - Ontario Postal Code L3V 6.J3 File No. Works Number * Month Year 46 120002273 08 2024 1 2 3 11 2 3 11 16 19 20 21 22 R C.P. 36 Raw Sewage Parameter Code - 12 13 - - - 12 13 - - - 30 34 35 38	Mailing Address									
Orillia ON - Ontario Data Period * L3V 6J3 File No. Works Number * Data Period * Month Days Discharge Type Upc Col 2 46 120002273 08 2024 31 2 2 R 36 Raw Sewage Parameter Code - Dec - Monthly Average Results - # of Samp 12 13 -										
Month Year Days Distringe Op 46 120002273 08 2024 31 2 2 R 1 2 3 11 16 19 20 21 22 R 26 Raw Sewage Parameter Code - Dec - Monthly Average Results - # of Samp 12 13 -	Municipality/City/Town Orillia									
46 120002273 08 2024 31 2 2 R 1 2 3 11 16 19 20 21 22 R 36 Raw Sewage Parameter Code - Dec - Monthly Average Results - # of Samp 12 13 -	File No. Worl	ks Number *		Contraction of the second second			Days			Update Code
1 2 3 11 16 19 20 21 22 8 C.P. 36 Raw Sewage Parameter Code - Dec - Monthly Average Results - # of Samp 12 13	46 120002273		08	202			31	_		R
36 Raw Sewage Parameter Code — Dec — Monthly Average Results — # of Samp 12 13 — — — — — — — — — — — — — — — — — — —	1 2 3 11								2	80
39 Final Effluent Parameter Code Dec Monthly Average Results # of Sample 12 13 Alkalinity, Total (mg/L) 00051 4 4	36 Raw Sewage		Parameter	Code -	Dec –	Month	y Average Re	sults -	- # of \$	Samples
39 Final Effluent Parameter Code Dec Monthly Average Results # of Sample 12 13 Alkalinity, Total (mg/L) 00051 4 4					_			_		
39 Final Effluent Parameter Code Dec Monthly Average Results # of Sample 12 13 Alkalinity, Total (mg/L) 00051 4 4					_			-		
39 Final Effluent Parameter Code Dec Monthly Average Results # of Sample 12 13 Alkalinity, Total (mg/L) 00051 4 4									_	
39 Final Effluent Parameter Code Dec Monthly Average Results # of Sample 12 13 Alkalinity, Total (mg/L) 00051 4 4					-	-				
12 13 Alkalinity, Total (mg/L) 00051 4			30	34	35	38				
Conductivity 25°C (uS(cm)			Parameter	Code -	Dec	Monthly	Average Re	sults -	- # of S	Samples
Conductivity 25°C (µS/cm) 91004 4	Aikainity, Totai (Ing/L)		00051		4					
	Conductivity 25°C (µS	S/cm)	91004		4					
E. Coli (CT/100ml) 91000 4	E. Coli (CT/100ml)		91000		4					
Nitrate, Unfiltered reactive (mg/L) 00022 4	Nitrate, Unfiltered read	ctive (mg/L)	00022		4					
Nitrite, Unfiltered reactive (mg/L) 00021 4	Nitrite, Unfiltered react	tive (mg/L)	00021		4					
pH 80770 4	рН		80770		4					
Temperature, Water (°C) 80250 4	Temperature, Water (*	°C)	80250		4					
Un-ionized Ammonia (mg/L) 91012 4			91012	4	4					
Dissolved Oxygen (mg/L) 00003 4	10 A		00003	4	4					
Hydrogen Sulphide (mg/L) 83008 4	Hydrogen Sulphide (m	ıg/L)	83008		4	_		-		
30 34 35 38 Operator Telephone Number Return completed form to: 705-345-1841 1 Environmental Magination and Reporting Provide MECD of the State	Operator Telephone Number 705-345-1841		30	Return c	omple	eted form]		
705-345-1841 1. Environmental Monitoring and Reporting Branch, MECP, a Operator Email Address WasteWaterReporting@ontario.ca And tdrouin@severn.ca 2. Your Environmental Officer at your local District/Area MEC	Operator Email Address			Waste	Water	Reporting	@ontario.ca	And		
Comments Office. (Find your local MECP office: https://www.ontario.ca/environment-and-energy/ministry- environment-district-locator)	Comments	1		Office https://	. (Find	your loca	MECP office	e:		



Fields ma	arked with	an asterisk (*) are ma	andatory.								
Project N Washag	lame Jo Lagoon										
Facility	Address										
Unit Num	nber	Street Number 1021	Street Name Hurlwood La	ine						PO Box 159	
Municipa Orillia	lity/City/To	wn		Province ON - O						Postal C L3V 6J	
Operating The Cor	g Authority poration o	f the Township of S	Severn								
Mailing	Address										
Unit Num	nber	Street Number 1021	Street Name Hurlwood La	ine						PO Box 159	
Municipal Orillia	lity/City/To	wn		Province ON - O						Postal C L3V 6J	
File No.		Works Numbe	r*	М	Data F	Period * Year		Days		harge ype	Update Code
46	12000	2273		09	202	4		30	2		R
1 2	3 1	1		16	19	-		20 21		22	80
C.P.	1										
			г						-		
35	Flows			Paramete	r Code	- Dec -	- Mor	thly Results	_		
12 13	Total Flow	(10 ³ m ³)	5	0010		3	1.87				
	Average D	aily Flow (10 ³ m ³ /d)	5	0015		3	0.062				
	Maximum	Daily Flow (10 ³ m ³ /d) 5	0020		3					
			30		34	35	38		46		
35	Bypass			Paramete	r Code	- Dec	- Mon	thly Results	-	# of Occ	urrences
12 13	Plant Bypa	ss Volume (103 m3)	5	0270		3					
	Duration (hours)	8	1680		1					
		•	30		34	35	38		-		
36	Raw Sewa	ge		Paramete	r Code -	- Dec	- Mon	thly Results		# of S	amples
12 13	BOD ₅ (mg	/L)	o	0001		0	250		76		
	Suspended	d Solids (mg/L)	-	0006		0	246		1		
	TKN (mg/l			0020	_	2	39.5	(
	101 121 1221	-, phorus (mg/L)		0020		1	5.6				
	rotari nos	priores (mgrz)	30		34	35	38				51
39	Final Efflu	ent		Paramete	r Code -		- Mon	thly Results			amples
	Total Effl. V	/olume To Watercou	rse (103 m3) 5	0280		3		,			
		ion (hours)		1680		1	-		- 1		
	Cell Depth		-	0290					-		
	CBOD ₅ (m					1					
	BOD ₅ (mg			0002		1	-	-			
	• • •			0001		1	-		-		
	· ·	I Solids (mg/L)	-	0006		1	-		4 6		
		Ammonium (mg/L)	~	0019		2			4		
	TKN (mg/L			0020		2		-			
	Total Phos	phorus (mg/L)		0033		2					
00	Distant and		30		34	35	38		48		51
	Disinfectio	on sed (kg as Cl ₂)			r Code	Dec.	Mon	thly Results		# of St	amples
		-		0320		1	_		-		
		osage (mg/L as Cl ₂)		0410		1			┥┍		
	Chiorine Ri	esidual (mg/L as Cl ₂	-	0420		1					
Operator	Telephone	Number	30		34 Return o				48		51
705-345-								ng and Repo		ranch, M	ECP, at
	Email Addr							@ontario.ca icer at your l		etrict/Ara	a MECD
Comment					2. Your E		entai Uli	icer al your l	Juan Di	ancoare	
					Ministry C	Contact B	Email Ad	dress *			
20625 /2020/		182 of 248			Peter.Vr	eugden	hil@ont	ario.ca			

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Project	Name									-	_
Washa	ago Lagoor	n									
Facilit	y Address	3									
Unit Nu	mber	Street Number 1021	Street Name Hurlwood Lar	пе						PO Box	
Municip	ality/City/To	own		Provin					F	Postal C	
Operati	ng Authority	1		ON -	Ontario				l	L3V 6J3	3
	provide a construction of the construction of	of the Township of	of Severn	_							
Unit Nu		Street Number 1021	Street Name Hurlwood Lan	ne						PO Box	
Municip Orillia	ality/City/To	nwo		Provin	ce Ontario		n tha anna a		F	Postal C	
File No.		Works Num	ber *	1 Г		a Period		Days	Disch	arge	Update
46	12000	2273		09		024	ear			pe	Code
1 2		11		1		024		30 20 21	2	2	R 80
C.P.											
36	Raw Sewa	age	Par	amete	r Code	- Dec	- Mont	hly Average Re	sults -	- # of	Samples
12 13											
							-			-	
						-	-		_	-	
	-										
						H					
				-	-	н				-	
	-						-				
										-	
			30		34	35	38			-	
	_										
9	Final Efflue	ent	Para	ameter	Code	- Dec -	- Month	ly Average Res	sults -	# of s	Samples
12 13	Alkalinity,	Total (mg/L)	0005	1				., relage rec		# 01 .	Jampies
		ty 25°C (µS/cm)	9100			4					
	E. Coli (CT					4					
	-		9100			4					
		filtered reactive (m	2.2			4					
		iltered reactive (mg			_	4					
	рН		8077	0		4					
	the second s	re, Water (°C)	80250	C		4					
		Ammonia (mg/L)	91012	2		4					
	Dissolved (Oxygen (mg/L)	0000	3		4			\neg		
	Hydrogen S	Sulphide (mg/L)	83008	3		4					
				-	-	-			_		
					-	H			_	_	
				-							
perator	Telephone	Number	30		34 Return	35 Comp	38 leted for	m to:			
05-345-	1841							ring and Report	ing Bror		
perator	Email Addre	ess			Wa	steWate	Reportin	g@ontario.ca	ang brar And	ICH, ME	ur, at
drouin@	severn.ca							fficer at your lo		ot/A	NEOD
omment	S				Off	ce. (Find	d vour loc	al MECP office	Jai Distri	cvArea	MECP
					http	s://www	ontario.c	a/environment-	and-ene	rav/min	istn/-
					env	ironmen	t-district-l	ocator)			July
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Fields m	narked with	an asterisk (*) are	mandatory.								
Project I Washag	Name go Lagoon	1									
Facility	Address										
Unit Nur	nber	Street Number 1021	Street Name Hurlwood L	-						PO Box 159	x
Municipa Orillia	ality/City/To	own	191	Provi	ince - Ontario					Postal L3V 63	
	ng Authority rporation o	of the Township o	f Severn								
Mailing	Address		8								
Unit Nur	nber	Street Number 1021	Street Name Hurlwood L							PO Box 159	×
Municipa Orillia	ality/City/To	own		Provi	ince - Ontario					Postal L3V 6J	
File No.		Works Num	ber *		Data I Month	Period * Year		Days		charge 'ype	Update Code
46	12000	2273		_	10 202	4		31		2	R
1 2	3 :	11			16 19			20 21		22	80
C.P.	1										
and the second second	100						1974				
35	Flows			Paran	neter Code	- Dec	-	nthly Results			
12 13	Total Flov	v (10 ³ m ³)		50010		3	2.24				
	Average [Daily Flow (10 ³ m ³)	/d)	50015		3	0.072				
	Maximum	Daily Flow (10 ³ m	3/d)	50020		3					
	1			30	34	35	38		46		
35	Bypass			-	neter Code	- Dec.	- Mo	nthly Results		# of Oc	currences
12 13	Plant Byp	ass Volume (10 ³ n	n ³)	50270		3			4 L		
	Duration	(hours)		81680		1					
2.0	1			30	34	35	38				
36 12 13	Raw Sew				neter Code	- Dec.	_	nthly Results	-	# of S	Samples
12 13	5 (00001		0	189		1		
	and the second	ed Solids (mg/L)		00006		0	102		1		
	TKN (mg.	-		00020		2	51.5		1		
	Total Pho	sphorus (mg/L)		00033		1	5.2		1		
20	1			30	34	35	38	athly Docute	48	-	5
39	Final Effi				neter Code	- Dec.	- 1710	nthly Results	-	# 01 3	Samples
12 15		Volume To Watero	ourse (103 m3)			3	_		-		
		ation (hours)		81680		1	-		-		
	Cell Depth			50290		1			4 -		
	CBOD ₅ (00002		1	0		4 4		
	BOD ₅ (m			00001		1			┥┝		
		ed Solids (mg/L)	. 220	00006		1			4 4		
		+ Ammonium (mg	/L)	00019		2			4 4		
	TKN (mg	for a set a		00020		2			4 4		
	Total Pho	sphorus (mg/L)		00033		2					
20	.			30	34	35	38	aible Dara lia	48		5
09 12 13	Disinfecti	Ion Jsed (kg as Cl ₂)			neter Code	Dec.	MO	nthly Results	٦	# 01 \$	Samples
			N N	50320		1			-		
		Dosage (mg/L as C Dosidual (mg/L as C	-	80410		1					
	Chiorine F	Residual (mg/L as	C12)	80420 30	34	1 35	38			0	5
0				30	Return			m to:	48	,	5
Operator 705-345	r Telephone 5-1841	e Number						ring and Repo	rtina P	Iranch I	MECP. at
	r Email Add	iress *						g@ontario.ca			
	@severn.c				Contraction of the second		nental O	fficer at your l	ocal D	istrict/A	rea MECP
Commer	nts				Offic	-	_				
	Page	184 of 248			Ministry Peter.V	Contact reugder	Email Ann	odress * Itario.ca			

Page 184 of 248



Project N Washag	Name Jo Lagoon	1														
Facility	Address					-	-	-	-					-		
Unit Nun	nber	Street Number 1021	Street Name Hurlwood L	ane										PC 15	D Box	
Municipa Orillia	ality/City/To	own			vince I - Onta	ario									stal C V 6J3	
Operatin The Cor	g Authority	/ of the Township of	Severn													
-	Address															
Unit Nun	nber	Street Number 1021	Street Name Hurlwood La	ane										PC 15	Box 9	
Municipa Orillia	lity/City/To	own			vince I - Onta	ario									stal C V 6J3	
File No.		Works Num	per *	Ì	Mont		ta Po		d * 'ear			Days		cha Гуре		Update Code
46	12000	2273			10	-	2024	-			31			2	<u> </u>	R
1 2		11			_	9					20) 21		22		80
C.P.]															
36	Raw Sewa	age	F	aram	eter Co	de	-	Dec		Month	ily Ave	erage A	Results]-	# of	Samples
12 13								_								
				-				_		-						
						-	╞	-								
						-		-		-	-	-				
														1		
														1		
														1		
			30			34		35		38						
39	Final Efflu	ient	F	aram	eter Co	de	- 0	Dec	-	Month	nly Ave	erage F	Results]-	# of	Samples
12 13		Total (mg/L)	00	051			4	1			_	_				
		vity 25°C (µS/cm)	91	004			4	1					_			
	E. Coli (C	-		000	_		4	1								
		nfiltered reactive (m		022			4	1								
		filtered reactive (mg		021		_	4	-								
	рН			770			4	-			_					
		ure, Water (°C)		250	-	_	4									
		d Ammonia (mg/L) Oxygen (mg/L)		012			4						-		_	
				003			4	1				_				
	Hydrogen	Sulphide (mg/L)	83	800		-	4	ł		-						-
						-	H	-								
						-	H	-			1100		-			
						-	ŀ	-						Υ		
						-	ŀ	-			-					
	L		30			34	L	35		38				I I		
Operator 705-345	Telephone -1841	e Number								eted fo I Monito			oortina f	Brar	ich. Mi	ECP, at
Operator	Email Add	iress				M	/aste	Wa	ater	Reporti	ng@or	ntario.	a And			
Commen					^{2.}	YOI	ur Er	. (F	ind	nental C your lo	officer cal ME	at you CP of	r Iocal D fice:	ustri	ct/Are	a MECP
S S MINUT						h	ttps:/	/ww	ww.	ontario.	ca/env	rironm	ent-and	ene	rgy/mi	inistry-
						e	nviro	nm	ent	-district	-locato	ir)	_	-		



Ministry of the Environment, Conservation and Parks

Fields marked with an asterisk (are mandatory. 							
Project Name Washago Lagoon								
Facility Address								
Unit Number Street Num 1021	ber Street Na Hurlwood						PO Bo 159	x
Municipality/City/Town Orillia		Province ON - C					Postal L3V 6	
Operating Authority The Corporation of the Towns	ship of Severn							
Mailing Address								
Unit Number Street Num 1021	ber Street Nar Hurlwood						PO Bo 159	x
Municipality/City/Town Orillia		Province ON - C					Postal L3V 6	
File No. Works	s Number *		Data F	Period * Yea		Days	Discharge Type	Update Code
46 120002273		11	202	-		30	2	R
1 2 3 11		16	19	-		20 21	22	80
C.P.								
35 Flows		Paramet	er Code	- Dec	- Mo	nthly Results	1	
¹² ¹³ Total Flow (10 ³ m ³)		50010	ci obuc	-		nully Results	1	
Average Daily Flow (1	03 m3/d)			3	2.1			
Maximum Daily Flow (50015		3	0.07		-	
Maximum Daily Flow	10- 11-/0)	50020 30	34	3	0.07	46	1	
35 Bypass		Paramete		- Dec.		nthly Results		ccurrences
12 13 Plant Bypass Volume	(10 ³ m ³)	50270		3				
Duration (hours)		81680		1				
		30	34	35	38		·	
36 Raw Sewage		Paramete	er Code	- Dec.	- Mor	nthly Results	# of	Samples
12 13 BOD ₅ (mg/L)		00001		0	193		6	
Suspended Solids (mg	µ/L)	00006		0	105		6	
TKN (mg/L)		00020		2	54.4		6	
Total Phosphorus (mg	/L)	00033	34	1	5.6		6	
39 Final Effluent		Paramete		35 - Dec.	38 Mor	thly Results	48 — # of	51 Samples
¹² ¹³ Total Effl. Volume To V	Vatercourse (103 m				27.08			Samples
Flow Duration (hours)		81680		3	240			
Cell Depth (m)		50290		1	1.5			
CBOD ₅ (mg/L)		00002		1				
BOD ₅ (mg/L)		00001		1	7.1		6	
Suspended Solids (mg	/L)	00006		1	5.3		6	
Ammonia + Ammonium	n (mg/L)	00019		2	4.3		6	
TKN (mg/L)		00020		2	5.98		6	
Total Phosphorus (mg	/L)	00033	34	2	0.14		6	
Disinfection		Paramete				thly Results	48 # of !	51 Samples
12 13 Chlorine Used (kg as 0	Cl ₂)	50320		1	AVIO1	any neodulo	# 01	oampies
Chlorine Dosage (mg/l	-	80410		1				
Chlorine Residual (mg		80420		1				
Operator Telephone Number 705-345-1841		30	34 Return o				48	51
Operator Email Address * tdrouin@severn.ca			Wast	eWater	Reporting	ng and Reporti g@ontario.ca A ficer at your loc	And	
Comments			Office			iller at your lot		ICA MECP
	40		Ministry C					
Page 186 of 24	4 <u>8</u>		Peter.Vr	eugdei	nhil@ont	ario.ca		Orac of



Project Washa	Name Igo Lagoor	1											
Facilit	y Address						-						
Unit Nu	mber	Street Number 1021	Street Name Hurlwood Lan	e								PO Box	6
Municip Orillia	ality/City/To	own		Province ON - C								Postal (_3V 6J	
Operati The Co	ng Authority prporation of	of the Township of	fSevern										
Mailing	g Address												
Unit Nu		Street Number 1021	Street Name Hurlwood Lan	е								PO Box	
Municip Orillia	ality/City/To	wn		Province ON - C								Postal C	
File No.		Works Numl	ber *	м	Data onth	a Perio	od * Yea		Da	ys	Disch Ty		Update Code
46	12000	2273		11	20)24			30		2	T	R
1 2	3 1	11		16	19				20	21	2	2	80
36 12 13 39	Raw Sewa		30	ameter	34	Dec		38	nly Avera				f Samples Samples
12 13	Alkalinity,	Total (mg/L)	0005			4		145	iy nivera	gentes		# 01	Gamples
		ity 25°C (µS/cm)	9100		-	4		145				0	
	E. Coli (C1	[/100ml)	9100			4							
		filtered reactive (m				-					_		
	_	filtered reactive (mg			-	4		-					
	pН	in the second	8077		_	4		7.16				-	
	-	ire, Water (°C)	8025	-		4		6.66		-		6	
		Ammonia (mg/L)	9101			4		0.00	-			0	-
		Oxygen (mg/L)	0000		-	4		-			_		
	Hydrogen	Sulphide (mg/L)	83008			4					_		
	, drogen	oulphilde (ing/L)	53000	0	-	4		-		-	_	-	
	-					-			-		_		
						-						H	
						-							
										-	_		
	L		30		34	35		38					
Operator 705-345	Telephone	Number	30		Return	com	ple	eted fo	rm to: ring and	Bonorti	na Bra	ach M	50D -+
	Email Addr				Wa	steWa	ater	Reportir	ning and ng@onta	rio.ca A	ng Bra nd	nen, M	ECP, at
	severn.ca											rict/Are	a MECP
Commen	nts				Offi	ce. (F	ind w.o	your loc ontario.c	al MECF	office:			
_				_	env	ironm	ent	-district-	locator)				





Ministry of the Environment, Conservation and Parks

Fields m	narked with	an asterisk (*) are m	andatory.								
Project I	Name										
-	go Lagoon		-								
Unit Nur	/ Address	Christian	1								
Onit Nur	nber	Street Number 1021	Street Nam Hurlwood							PO Box 159	
Municipa	ality/City/To	wn		Provin	Ce			-			No. do
Orillia					Ontario					Postal C L3V 6J	
Operatin The Co	ng Authority	f the Township of S									
	Address	Tune Township of a	Severn								
Unit Nur	1	Street Number	Street Nam	0							
		1021	Hurlwood I							PO Box 159	
Municipa	ality/City/Tov	wn		Provin						Postal C	ode
Orillia	_			ON -	Ontario					L3V 6J	3
File No.		Works Numbe	r *			Period *		Days		harge	Update
46	120002	2273			Month	Year	_			ype	Code
1 2	3 1			12		4		31 20 21		22	R
C.P.	1				• 10			20 21	-	~~	80
							_		_		
35 12 13	Flows			and a second second second	ter Code	- Dec	- Mor	thly Results			
	Total Flow	-		50010		3	4.448	<u> </u>			
		aily Flow (10 ³ m ³ /d)		50015		3	0.143				
	Maximum [Daily Flow (10 ³ m ³ /d)	50020		3					
35	Bypass			30 Daramo	34 ter Code	35	38 Maa	the Decestion	46		
12 13		ss Volume (10 ³ m ³)		50270	ter coue		WU	thly Results		# of Occ	urrences
	Duration (h			81680		3	-			-	
				30	34	35	38				
36	Raw Sewa			Parame	ter Code -	- Dec	- Mon	thly Results	[# of Sa	amples
12 13	BOD ₅ (mg	/L)		00001		0	142		1 1		
	Suspended	Solids (mg/L)		00006		0	73		1		
	TKN (mg/L			00020		2	47		1		
	Total Phosp	phorus (mg/L)	1	00033		1	3.9		1		
39	Final Efflue			30	34	35	38		48		51
12 13		olume To Watercour	co (103 m3)		ter Code -		Mon	thly Results	_	# of Sa	Imples
	Flow Durati		se (10° m°)			3	-		-		
	Cell Depth			81680 50290		1			-		
	CBOD ₅ (m			00002		1			4 -		
	BOD ₅ (mg/			00002		1			┥┝		
	Suspended	Solids (mg/L)		00000		1			┥┝		
		Ammonium (mg/L)		00019		2			+ $+$		
	TKN (mg/L))		00020		2			\dashv \vdash		
	Total Phosp	horus (mg/L)		00033		2			┥┝		
				30	34	35	38				51
	Disinfection			Paramet	er Code -	Dec.	Mont	hly Results	1.40	# of Sa	mples
		ed (kg as Cl ₂)		50320		1					
		sage (mg/L as Cl ₂)	- F	30410		1					
	Chionne Re	sidual (mg/L as Cl ₂)	L L	30420		1					
Operator '	Telephone N	lumber	2		34 Return c	35 complet	38 ted form	to:	48		51
705-345-	1841	NUTIDEI				-		g and Repo	rtina Br	anch ME	CP at
	Email Addre	SS *			Waste	eWaterR	eporting	@ontario.ca	And		
	severn.ca				2. Your Er	nvironm	ental Offi	cer at your le	ocal Dis	trict/Area	MECP
Comment	s				Office Ministry C		moil Ad-	rocc *			
	Page	188 of 248			Peter.Vre	eugdenl	hil@onta	rio.ca			

Page 188 of 248



Project N Washad	Name go Lagoon									
	Address									
Unit Nur		Name ood La	ne						PO Box	
Municipa Orillia	ality/City/Town		Provinc ON - (e Ontario					Postal C	
Operatin The Co	ng Authority rporation of the Township of Severn									
	Address									
Unit Nun		Name ood La	ne						O Box	
Municipa Orillia	ality/City/Town		Provinc ON - 0						ostal C 3V 6J3	
File No.	Works Number *			Data Ionth	a Perioo	d * ear	Days	Disch		Update Code
46	120002273		12	20)24	cai	31	Ту 2		R
1 2	3 11		16	19	-		20 21	2	2	80
C.P.										
36	Raw Sewage	Pa	rameter	Code -	- Dec	- Mont	hly Average Re	sults -	- # of	Samples
12 13										
		-	-			-				
		_							_	
				_	-	_				
			_							
		_								
		_								
		_				-	-		_	
		30		34	35	38			1	
		30		34	35	30				
39	Final Effluent	Ра	rameter	Code -	- Dec	- Mont	hly Average Re	sults -	# of	Samples
12 13	Alkalinity, Total (mg/L)	000	51	_	4				_	
	Conductivity 25°C (µS/cm)	910			4					
	E. Coli (CT/100ml)	910			4				_	
	Nitrate, Unfiltered reactive (mg/L)	000			4					
	Nitrite, Unfiltered reactive (mg/L)	000	1		4					
	pH	807			4			_	_	
	Temperature, Water (°C) Un-ionized Ammonia (mg/L)	802			4					
	Dissolved Oxygen (mg/L)	910			4	-		_		
	Hydrogen Sulphide (mg/L)	000	_		4				-	
	nydrogen Sulphide (mg/c)	830	08		4				<u> </u>	
									<u> </u>	_
					H				-	
			_		Н					
		-	-		Н	-				
	L	30		34	35	38			_	
Operator 705-345	Telephone Number -1841					pleted fo	orm to: pring and Repo	rtina Bra	nch. MI	ECP, at
	Email Address Øsevern.ca			Wa	steWat	terReporti	ng@ontario.ca Officer at your l	And		
Commen				Off	ice. (Fi	nd your lo	cal MECP offic ca/environmen	e:		
						ent-district				

Appendix C

Sewage Pump Station Draw Down Tests

PUMP STATION DRAWDOWN CALCULATIONS

<u>Washag</u>	<u> </u>			Areas to be F	illed		<u>Volume & Flow Calculations</u> 1 inch = 0.0254 m or 1 m = 39.3701 inches			
Maige		Diameter	: 2.4 m (94 in)) Radius:	1.2	m	V _{pump} =	r 1 m = 39.3701 inches = $\pi r^2 h$ e r = ½ diameter (m)		
191		Influent	Drawdown					h = m/min		
of	Trial #	Result (m)	Result (m)	Total (m)	Avg. (m)	Flow (L/s)	Flow =	= ## x 1000 litres/60 sec.		
24	1	0.03	0.17	0.20						
Puffip 1	2	0.02	0.15	0.17	0.185	13.949	Main W/O			
	3	0.05	0.08				V _{pump} = 0.837	m ³ /min		
	1	0.04	0.15	0.19			Flow = 13.949	L/s		
Pump 2	2	0.03	0.20	0.23	0.207	15.582	V _{pump} = 0.935	m³/min		
	3	0.05	0.15	0.20			Flow = 15.582	L/s		

Date Completed : May 9 2024

Completed By: Silas Smith

PUMP STATION DRAWDOWN CALCULATIONS

<u>Washag</u>	0			Areas to be F	illed			iow Calculations
a Main G		Diameter	:: 2.4 m (94 in)	Radius:	1.2	m	V _{pump}	br 1 m = 39.3701 inches = $\pi r^2 h$ re r = ½ diameter (m)
192		Influent	Drawdown					h = m/min
0	Trial #	Result (m)	Result (m)	Total (m)	Avg. (m)	Flow (L/s)	Flow	= ## x 1000 litres/60 sec
24	1	0.03	0.12	0.15				
24 ⁸⁰ Pump 1	2	0.01	0.14	0.15	0.150	11.310	Main W/O	
	3	0.02	0.14				V _{pump} = 0.679	m ³ /min
	1	0.04	0.16	0.20			Flow = 11.310	L/s
Pump 2	2	0.02	0.15	0.17	0.183	13.823	$V_{pump} = 0.829$	m ³ /min
	3	0.01	0.17	0.18			Flow = 13.823	L/s

Date Completed: October 11 2024

Completed By: Silas Smith

Appendix D

Laboratory Analysis Reports



Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-325-1247

29-April-2024

Date Rec.: 22 April 2024 LR Report: CA14769-APR24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	6: Washago Lagoon
Sample Date & Time					22-Apr-24 08:13
Temperature Upon Receipt [°C]					8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	23-Apr-24	16:20	29-Apr-24	11:17	< 4
Total Suspended Solids [mg/L]	24-Apr-24	09:12	25-Apr-24	11:53	3
pH [No unit]	23-Apr-24	13:21	25-Apr-24	11:00	7.92
Alkalinity [mg/L as CaCO3]	23-Apr-24	13:21	25-Apr-24	11:00	124
Phosphorus (total) [mg/L]	24-Apr-24	14:58	25-Apr-24	21:51	0.15
Total Kjeldahl Nitrogen [as N mg/L]	24 Apr 24	17:01	25-Apr-24	14:34	5.8
Ammonia+Ammonium (N) [as N mg/L]	24-Apr-24	18:36	26-Apr-24	12:32	4.4

Da.

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003694955

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Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

06-May-2024

Date Rec.: 29 April 2024 LR Report: CA15455-APR24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Washago Lagoon
Sample Date & Time						29-Apr-24 10:30
Temperature Upon Receipt [°C]						8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	30-Apr-24	16:02	06-May-24	11:10	25	< 4
Total Suspended Solids [mg/L]	30-Apr-24	13:12	01-May-24	13:41	25	< 2
Phosphorus (total) [mg/L]	30-Apr-24	15:42	01-May-24	11:17	1	0.12
Total Kjeldahl Nitrogen [as N mg/L]	30-Apr-24	15:39	01-May-24	09:52		5.1
Ammonia+Ammonium (N) [as N mg/L]	30-Apr-24	19:23	01-May-24	13:01		3.7
pH [No unit]	30-Apr-24	08:38	30-Apr-24	14:30		7.84
Alkalinity [mg/L as CaCO3]	30-Apr-24	08:38	30-Apr-24	14:30		116

Da.

Carrie Greenlaw Project Specialist, Environment, Health & Safety

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0003702327

Page 1 of 1



Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

16-May-2024

Date Rec.: 08 May 2024 LR Report: CA12193-MAY24

Copy: #1

CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Washago Lagoon
Sample Date & Time						07-May-24 09:54
Temperature Upon Receipt [°C]						11.0
Biochemical Oxygen Demand (BOD5) [mg/L]	09-May-24	16:47	14-May-24	13:04	25	< 4
Total Suspended Solids [mg/L]	10-May-24	09:09	14-May-24	08:15	25	< 2
pH [No unit]	14-May-24	12:45	15-May-24	13:02		8.04
Alkalinity [mg/L as CaCO3]	14-May-24	12:45	15-May-24	13:02		113
Phosphorus (total) [mg/L]	09-May-24	15:47	14-May-24	06:57	1	0.16
Total Kjeldahl Nitrogen [as N mg/L]	09-May-24	07:13	10-May-24	09:53		4.3
Ammonia+Ammonium (N) [as N mg/L]	15-May-24	20:51	16-May-24	09:03		3.6

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003713517

Page 1 of 1 Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Pleas prefer to SGS General Carolitions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or



Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

27-May-2024

Date Rec.: 21 May 2024 LR Report: CA13975-MAY24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						21-May-24 09:00	21-May-24 10:00	21-May-24 08:40
Temperature Upon Receipt [°C]						19.0	19.0	19.0
Biochemical Oxygen Demand (BOD5) [mg/L]	22-May-24	17:29	27-May-24	12:55	25	< 4	< 4	< 4
Total Suspended Solids [mg/L]	23-May-24	08:04	24-May-24	08:42	25	2	3	2
Alkalinity [mg/L as CaCO3]	23-May-24	16:16	24-May-24	14:50		107	104	103
Phosphorus (total) [mg/L]	22-May-24	16:32	23-May-24	21:04	1	0.20	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	22-May-24	16:39	27-May-24	11:21		3.6	0.6	0.6
Unionized Ammonia [mg/L as N]	23-May-24	10:26	24-May-24	13:51		< 0.001	< 0.001	< 0.001
Ammonia+Ammonium (N) [as N mg/L]	23-May-24	10:26	24-May-24	13:50		2.6	< 0.1	< 0.1
Field pH [no unit]						6.2	6.8	6.6
Field Temperature [celcius]						12.0	12.0	12.0

Note: Provincial unionized ammonia calculated from field pH and temperature provided on the chain of custody form.

ey anderen

Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003724018

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Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

03-June-2024

 Date Rec. :
 24 May 2024

 LR Report:
 CA12992-MAY24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						23-May-24 11:05	23-May-24 11:30	23-May-24 10:50
Temperature Upon Receipt [°C]						18.0	18.0	18.0
Field pH [no unit]						6.80	6.45	6.74
Field Temperature [celcius]						20	20	20
Biochemical Oxygen Demand (BOD5) [mg/L]	27-May-24	15:26	03-Jun-24	10:10	25	< 4	< 4	< 4
Total Suspended Solids [mg/L]	28-May-24	19:35	29-May-24	16:21	25	3	7	3
Alkalinity [mg/L as CaCO3]	25-May-24	11:52	27-May-24	11:43		115	104	102
Phosphorus (total) [mg/L]	28-May-24	14:49	29-May-24	15:12	1	0.23	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	27-May-24	16:01	29-May-24	12:49		4.2	< 0.5	0.6
Ammonia+Ammonium (N) [as N mg/L]	24-May-24	19:30	28-May-24	07:49		2.6	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	24-May-24	19:30	28-May-24	07:49		0.006	< 0.001	< 0.001

Note: Provincial unionized ammonia calculated from field pH and temperature provided on the chain of custody form.

Carrie Greentaw Project Specialist, Environment, Health & Safety

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0003731896

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Attn : Tony Drouin

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Phone: 705-345-1841 (cell) Fax:705-327-5818

03-June-2024

Date Rec.: 27 May 2024 LR Report: CA14851-MAY24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						27-May-24 12:11	27-May-24 12:55	27-May-24 11:57
Temperature Upon Receipt [°C]						16.0	16.0	16.0
Biochemical Oxygen Demand (BOD5) [mg/L]	28-May-24	16:34	03-Jun-24	12:07	25	4	< 4	< 4
Total Suspended Solids [mg/L]	29-May-24	10:35	30-May-24	12:49	25	3	4	2
Phosphorus (total) [mg/L]	29-May-24	14:58	30-May-24	16:01	1	0.20	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	28-May-24	17:50	30-May-24	10:05		2.8	< 0.5	0.6
Alkalinity [mg/L as CaCO3]	28-May-24	14:32	29-May-24	11:49		112	98	100
Ammonia+Ammonium (N) [as N mg/L]	28-May-24	17:00	29-May-24	11:24		1.8	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	28-May-24	17:00	30-May-24	10:06		0.040	<0.003	<0.003
Temperature @ pH [°C]	28-May-24	14:32	29-May-24	11:49		21.4	21.4	21.4
pH [No unit]	28-May-24	14:32	29-May-24	11:49		7.73	8.09	8.08

Note: Provincial unionized ammonia calculated using lab results for pH and temperature.

ey anderen

Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003732599

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Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

07-June-2024

Date Rec.: 31 May 2024 LR Report: CA19798-MAY24

Copy: #1

CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						29-May-24 09:53	29-May-24 10:10	29-May-24 09:35
Temperature Upon Receipt [°C]						12.0	12.0	12.0
Field pH [no unit]						6.4	7.00	6.80
Field Temperature [celcius]						16	15	15
Biochemical Oxygen Demand (BOD5) [mg/L]	31-May-24	17:38	05-Jun-24	12:18	25	< 4	< 4	< 4
Total Suspended Solids [mg/L]	05-Jun-24	08:29	06-Jun-24	09:24	25	2	< 2	< 2
Alkalinity [mg/L as CaCO3]	03-Jun-24	15:39	05-Jun-24	11:15		115	105	103
Phosphorus (total) [mg/L]	04-Jun-24	15:07	06-Jun-24	15:21	1	0.21	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	03-Jun-24	19:06	05-Jun-24	10:31		3.0	0.5	0.5
Ammonia+Ammonium (N) [as N mg/L]	04-Jun-24	06:43	05-Jun-24	09:59		1.8	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	04-Jun-24	06:43	05-Jun-24	10:00		0.001	< 0.001	< 0.001

Note: Provincial unionized ammonia calculated from field pH and temperature provided on the chain of custody form.

Carrie Greenłlaw Project Specialist, Environment, Health & Safety

0003737585

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Twp of Severn (Washago STP)

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P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

04-November-2024

Date Rec.: 28 October 2024 LR Report: CA14796-OCT24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Washago Lagoon
Sample Date & Time						28-Oct-24 09:35
Temperature Upon Receipt [°C]						5.0
Biochemical Oxygen Demand (BOD5) [mg/L]	29-Oct-24	16:35	04-Nov-24	11:11	25	6
Total Suspended Solids [mg/L]	29-Oct-24	13:33	30-Oct-24	13:19	25	< 2
pH [No unit]	29-Oct-24	15:48	30-Oct-24	10:25		7.98
Alkalinity [mg/L as CaCO3]	29-Oct-24	15:48	30-Oct-24	10:25		151
Phosphorus (total) [mg/L]	29-Oct-24	17:09	30-Oct-24	14:33	1	0.15
Total Kjeldahl Nitrogen [as N mg/L]	29-Oct-24	17:46	30-Oct-24	09:59		5.4
Ammonia+Ammonium (N) [as N mg/L]	29-Oct-24	19:05	31-Oct-24	12:47		3.6

ey anderen

Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003915894

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Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

11-November-2024

Date Rec.: 04 November 2024 LR Report: CA14068-NOV24

Copy: #1

CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Washago Lagoon
Sample Date & Time						04-Nov-24 10:32
Temperature Upon Receipt [°C]						10.0
Biochemical Oxygen Demand (BOD5) [mg/L]	05-Nov-24	16:44	11-Nov-24	11:18	25	8
Total Suspended Solids [mg/L]	05-Nov-24	12:03	06-Nov-24	11:28	25	6
pH [No unit]	05-Nov-24	10:14	06-Nov-24	10:00		7.38
Alkalinity [mg/L as CaCO3]	05-Nov-24	10:14	06-Nov-24	10:00		153
Ammonia+Ammonium (N) [as N mg/L]	05-Nov-24	19:17	06-Nov-24	14:30		4.2
Phosphorus (total) [mg/L]	05-Nov-24	17:26	06-Nov-24	13:40	1	0.16
Total Kjeldahl Nitrogen [as N mg/L]	06-Nov-24	16:39	07-Nov-24	11:23		6.0

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Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003923960

Page 1 of 1 Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Pleas prefer to SGS energy anglitions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or

regulation.



Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

18-November-2024

Date Rec.: 11 November 2024 LR Report: CA14182-NOV24

Copy: #1

CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Washago Lagoon
Sample Date & Time						11-Nov-24 11:37
Temperature Upon Receipt [°C]						12.0
Biochemical Oxygen Demand (BOD5) [mg/L]	12-Nov-24	16:07	18-Nov-24	10:18	25	9
Total Suspended Solids [mg/L]	12-Nov-24	12:41	13-Nov-24	11:32	25	8
pH [No unit]	12-Nov-24	17:12	13-Nov-24	11:59		8.08
Alkalinity [mg/L as CaCO3]	12-Nov-24	17:12	13-Nov-24	11:59		117
Ammonia+Ammonium (N) [as N mg/L]	13-Nov-24	19:02	14-Nov-24	12:53		4.1
Phosphorus (total) [mg/L]	14-Nov-24	10:02	15-Nov-24	13:04	1	0.13
Total Kjeldahl Nitrogen [as N mg/L]	13-Nov-24	17:01	14-Nov-24	15:51		5.7

ey anderen

Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003931347

Page 1 of 1 Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Pleas prefer to SGS General Carolitions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.



Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

02-December-2024

Date Rec.: 25 November 2024 LR Report: CA14645-NOV24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstrem
Sample Date & Time						25-Nov-24 09:50	25-Nov-24 10:01	25-Nov-24 10:13
Temperature Upon Receipt [°C]						-2	-2	-2
Field Temperature [celcius]						4.0	3.0	3.0
Field pH [no unit]						6.33	6.35	6.35
Biochemical Oxygen Demand (BOD5) [mg/L]	26-Nov-24	16:23	02-Dec-24	11:40	25	12	< 4	< 4
Total Suspended Solids [mg/L]	27-Nov-24	07:45	27-Nov-24	15:04	25	9	< 2	< 2
Alkalinity [mg/L as CaCO3]	26-Nov-24	15:38	27-Nov-24	10:11		148	94	95
Phosphorus (total) [mg/L]	26-Nov-24	15:57	27-Nov-24	11:01	1	0.11	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	27-Nov-24	17:26	28-Nov-24	14:52		5.8	0.6	< 0.5
Ammonia+Ammonium (N) [as N mg/L]	26-Nov-24	18:09	27-Nov-24	13:50		3.7	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	26-Nov-24	18:09	27-Nov-24	13:50		< 0.001	< 0.001	< 0.001

Note: Provincial unionized ammonia calculated from field pH and temperature provided on the chain of custody form.

Note: Sample temperature upon receipt was low; no ice observed in sample(s).

Carrie Greenlaw Project Specialist, Environment, Health & Safety

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Twp of Severn (Washago STP)

Attn : Tony Drouin

P.O. Box 159 Orillia, ON L3V 6J3, Canada

Phone: 705-345-1841 (cell) Fax:705-327-5818

05-December-2024

Date Rec.: 29 November 2024 LR Report: CA15506-NOV24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						28-Nov-24 09:40	28-Nov-24 09:56	28-Nov-24 10:07
Temperature Upon Receipt [°C]						9.0	9.0	9.0
Field pH [no unit]						6.6	6.5	6.6
Field Temperature [celcius]						6	5	4
Biochemical Oxygen Demand (BOD5) [mg/L]	29-Nov-24	14:29	04-Dec-24	11:49	25	< 4	< 4	< 4
Total Suspended Solids [mg/L]	02-Dec-24	07:50	03-Dec-24	16:20	25	2	< 2	< 2
Phosphorus (total) [mg/L]	29-Nov-24	15:57	02-Dec-24	11:19	1	0.11	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	29-Nov-24	17:26	03-Dec-24	10:39		6.0	< 0.5	< 0.5
Alkalinity [mg/L as CaCO3]	29-Nov-24	16:00	02-Dec-24	12:11		154	98	98
Ammonia+Ammonium (N) [as N mg/L]	29-Nov-24	19:02	02-Dec-24	13:13		4.6	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	29-Nov-24	19:02	02-Dec-24	13:13		0.002	< 0.001	< 0.001

Carrie Greenlaw Project Specialist, Environment, Health & Safety

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12-December-2024

Date Rec.: 06 December 2024 LR Report: CA12225-DEC24

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits	6: Lagoon Effluent	7: Green River Upstream	8: Green River Downstream
Sample Date & Time						05-Dec-24 10:00	05-Dec-24 09:40	05-Dec-24 09:15
Temperature Upon Receipt [°C]						3.0	3.0	3.0
Field pH [no unit]						6.6	6.5	6.5
Field Temperature [celcius]						5	5	4
Biochemical Oxygen Demand (BOD5) [mg/L]	07-Dec-24	10:16	12-Dec-24	10:16	25	< 4	< 4	< 4
Total Suspended Solids [mg/L]	10-Dec-24	12:19	11-Dec-24	14:16	25	5	4	< 2
Alkalinity [mg/L as CaCO3]	09-Dec-24	08:24	10-Dec-24	11:17		152	93	98
Phosphorus (total) [mg/L]	09-Dec-24	16:05	11-Dec-24	11:27	1	0.18	< 0.03	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	06-Dec-24	19:44	09-Dec-24	13:18		7.0	< 0.5	< 0.5
Ammonia+Ammonium (N) [as N mg/L]	09-Dec-24	19:22	10-Dec-24	14:43		5.8	< 0.1	< 0.1
Unionized Ammonia [mg/L as N]	09-Dec-24	19:22	10-Dec-24	14:43		0.003	< 0.001	< 0.001

Carrie Greentaw Project Specialist, Environment, Health & Safety

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Page 1 of 1 Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Pleas report to SGS energia cargititions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. The performance of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.