



# Township of Georgian Bluffs & Township of Chatsworth BioGRID Joint Board of Management Agenda

March 12, 2021, 11:00 a.m.

Council Chambers remain closed to the public. Should you wish to participate electronically, contact the Clerk at [bdrury@georgianbluffs.ca](mailto:bdrury@georgianbluffs.ca)

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	<b>Pages</b>
1. Call to Order	
2. Approval of Agenda/Additions to the Agenda	
<b>Recommendation:</b> That the agenda be approved as presented.	
3. Declaration of Pecuniary Interest	
4. Minutes of Previous Meetings	
4.1. December 17, 2020	3
<b>Recommendation:</b> That the minutes of the Biodigester Joint Board of Management meeting held on December 17, 2020, be approved.	
5. Presentations	
Nil	
6. Delegations	
Nil	
7. Correspondence	

- 7.1. Memo Report - Monthly Reports for the Derby WWTP August 2020 to December 2020

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**Recommendation:**

That the August to December 2020 monthly reports for the Derby Wastewater Treatment plant, be received for information.

**8. Staff Reports**

Nil

**9. Public Question Period**

Please email questions for consideration of the Board to the Clerk at [bdrury@georgianbluffs.ca](mailto:bdrury@georgianbluffs.ca).

**10. Unfinished Business**

- 10.1. Verbal update from the Director of Operations regarding the ongoing feasibility study.

**11. New Business**

- 11.1. 2021 Draft Budget

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**Recommendation:**

That the 2021 Biodigester Joint Board of Management Draft Budget is hereby approved, and

That the Draft Budget be forwarded to the Council of the Township of Georgian Bluffs and the Council of the Township of Chatsworth for final approval.

**12. Closed Session**

Nil

**13. Date of Next Regular Meeting/Adjournment**

To be determined by the Board.



# **Township of Georgian Bluffs & Township of Chatsworth BioGRID Joint Board of Management Minutes**

**December 17, 2020, 2:00 p.m.  
Council Chambers  
Township Administration Offices  
177964 Grey Road 18, RR#3, Owen Sound ON N4K 5N5**

**Members Present:** Mayor Dwight Burley  
Deputy Mayor Sue Carleton  
Mayor Scott Mackey  
Deputy Mayor Brian Gamble

**Staff Present:** Township of Georgian Bluffs:  
Kassandra Rocca, Director of Finance / Treasurer  
Brittany Drury, Clerk  
Krista Fearon, Legislative Services Assistant  
Steven Dollmaier, Director of Operations  
Troy Unruh, Utilities Coordinator  
Al Meneses, CAO

Township of Chatsworth:  
Patty Sinnamon, Clerk / CAO  
Jamie Morgan, Director of Operations

**This document can be made available in other accessible formats or with communications supports as soon as practicable and upon request.**

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## **1. Call to Order**

Mayor Dwight Burley called the meeting to order at 2:00 p.m.

**2. Approval of Agenda/Additions to the Agenda**

Moved By: Deputy Mayor Sue Carleton  
Seconded By: Mayor Scott Mackey

**That the agenda be approved as presented.**

Approved

**3. Declaration of Pecuniary Interest**

None declared.

**4. Minutes of Previous Meetings**

4.1 December 11, 2020

BIO-2020-020

Moved By: Deputy Mayor Brian Gamble  
Seconded By: Deputy Mayor Sue Carleton

**That the minutes of the Biodigester Joint Board of Management meeting held on December 11, 2020, be adopted.**

Approved

**5. Presentations**

Nil

**6. Delegations**

Nil

**7. Correspondence**

Nil

**8. Staff Reports**

8.1 LEG2020-30 - Replacement of Inner Cooler

The Township of Georgian Bluffs Utilities Coordinator outlined the report.

The Committee inquired regarding the purchase, including the impact on the annual budget. The Treasurer / Director of Finance noted that the purchase would be funded from reserves.

BIO-2020-021

Moved By: Deputy Mayor Sue Carleton

Seconded By: Mayor Scott Mackey

**That the Joint Board hereby authorizes purchase of a replacement inner cooler unit for use at the Biodigester facility, at a total cost of \$12,643.84, HST inclusive, and**

**That staff are hereby directed to finalize the purchase and installation of the unit.**

Approved

**9. Public Question Period**

The Clerk indicated that no questions were received.

**10. Unfinished Business**

Nil

**11. New Business**

Nil

**12. Closed Session**

Nil

**13. Date of Next Regular Meeting/Adjournment**

Moved By: Mayor Scott Mackey

Seconded By: Deputy Mayor Sue Carleton

**That meeting be adjourned at 2:20 p.m.**

Approved

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Mayor, Dwight Burley

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Clerk, Brittany Drury




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**Date** Friday, March 12, 2021

**From** Steven Dollmaier, Director of Operations

**Subject** Monthly Reports for the Derby WWTP August 2020 to December 2020

**Memo Report** OPS 2021-09

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## Analysis

The team of Aquatech Canadian Water Services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The monthly reports attached summarizes operational data, maintenance activities and compliance issue identified during the period of August 2020 to December 2020.

The attached monthly reports include all information required under the Georgian Bluffs / Chatsworth Services Agreement.

The influent flows and organic volumes are determined through records provided by the Septic hauler and are tabulated as follows;

Month	Total Influent Flow (m <sup>3</sup> )	Average Daily Flow (m <sup>3</sup> )	Rated Capacity Based (%)	Total Volume of Organics (m <sup>3</sup> )	Average Daily Flow of Organics (m <sup>3</sup> )
August	636.24	20.52	35.69	556	17.94
September	509.99	17.00	29.56	422.18	14.07

October	626.57	20.21	35.13	262.42	8.47
November	633.05	21.10	36.70	185.89	6.20
December	866.49	27.95	48.61	197.87	6.38

No consumer complaints, inquiries, regulatory issues and/or operational recommendations were received during the months of August to December.

**Financial Impact**

No finance impacts at this time.

**Strategic Priorities**

**Demonstrate and Enhance Environmental Stewardship**

The Township of Georgian Bluffs strives to become a leader in Environmental Stewardship by reducing energy consumption, reducing solid waste, increasing diversion rates of recyclable materials, and lessening the environmental impact of existing and future infrastructure through innovation and upgrading.

**Supporting Documents**

- Georgian Bluffs Monthly Report August 2020GSS (WWater)
- Georgian Bluffs Monthly Report September 2020GSS (WWater)
- Georgian Bluffs Monthly Report October 2020GSS (WWater)
- Georgian Bluffs Monthly Report November 2020GSS (WWater)
- Georgian Bluffs Monthly Report December 2020GSS (WWater)

Respectfully Submitted: Steven Dollmaier, Director of Operations



## Report Approval Details

Document Title:	OPS2021-09 Monthly Reports for the Derby WWTP.docx
Attachments:	<ul style="list-style-type: none"><li>- Georgian Bluffs.Monthly Report.August 2020GSS (WWater).pdf</li><li>- Georgian Bluffs.Monthly Report.September 2020GSS (WWater).pdf</li><li>- Georgian Bluffs.Monthly Report.October 2020GSS (WWater).pdf</li><li>- Georgian Bluffs.Monthly Report.November 2020GSS (WWater).pdf</li><li>- Georgian Bluffs.Monthly Report.December 2020GSS (WWater).pdf</li></ul>
Final Approval Date:	Mar 2, 2021

This report and all of its attachments were approved and signed as outlined below:

Jenn Burnett, Senior Planner

Tim Lewis, Chief Building Official / By-law Enforcement Officer

Kassandra Rocca, Director of Finance / Treasurer

Janet Hilts, Human Resources Manager

Brittany Drury, Clerk

Al Meneses, Chief Administrative Officer

## 1. Introduction

The team of Aquatech Canadian Water Services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The following report summarizes operational data, maintenance activities and compliance issue identified during the month of August, 2020. This report includes all information required under the Georgian Bluffs / Chatsworth Services Agreement.

## 2. Wastewater System – Derby Lagoons

### 2.1. Influent Flows (sewage)

The influent flows are determined through records provided by the Septic hauler and are tabulated as follows; for the month of August, the total influent flow was 636.24 m<sup>3</sup>, with an average daily flow of 20.52 m<sup>3</sup> or approximately 35.69% of the rated capacity based on the monthly average.

### 2.2. Organic Volumes

The volumes for the organics are determined through records provided by the haulers and are tabulated as follows; for the month of August, the total volume of organics was 556 m<sup>3</sup> with an average daily volume of 17.94 m<sup>3</sup>.

### 2.3. Total Volumes organics/sewage

The total volumes for the site are tabulated as follows; for the month of August, the total volumes was 1192.24 m<sup>3</sup> with an average daily flow of 38.46 m<sup>3</sup> or approximately 66.89% of the rated capacity based on the monthly average.

### 2.4. Treated Flows

The irrigated flows were shut down on 31 October, 2019 for the season. As per the Certificate of Approval, spray irrigation did resume in May 2020. The total volume for spraying in August was 1460 m<sup>3</sup>.

## 2.5. Required Analysis as per Amended Certificate of Approval #4027-84PQMX

Table 1 Required Analysis - Adjacent Monitoring Wells/Ponds									
Date	Location	Conductivity (umho/cm)	Chlorides (mg/L)	Nitrate (mg/L)	pH	Total Phosphorus (mg/L)	Total Ammonia (mg/L)	Unionized Ammonia (mg/L)	Nitrite (mg/L)
08/25/20	TW#1	981	144	0.39					
08/25/20	TW#1A	1150	134	1.34					
08/25/20	TW#2	988	156	<0.05					
08/25/20	TW#2A	1090	168	1.68					
08/25/20	TW#3	647	57.8	<0.05					
08/25/20	TW#3A	592	35	0.16					
08/25/20	TW#4	898	122	<0.05					
08/25/20	TW#4A	1080	178	0.23					
08/25/20	TW#5	490	5.0	<0.05					
08/25/20	TW#6	1190	194	0.79					
08/25/20	TW#6A	1220	202	0.96					
08/25/20	TW#7	704	66.7	<0.05					
08/25/20	TW#7A	859	110	2.20					
08/25/20	TW#8	991	151	1.20					
08/25/20	TW#9	564	23.7	<0.05					
	SW-North								
	SW-East								
	SW-West								

Notes: Nitrites were non detectable, F – Frozen, TW – Test Well, SW – Surface Water Pond

## 2.6. Repairs and Maintenance Details

Routine maintenance was done at the site. Intake sensor on gen set replaced. Blower motor was repaired. Hettek onsite calibrate gas sensors and replaced cooling field unit.

## 2.7. Regulatory Issues

There was no regulatory issues for August, 2020

## 2.8. Consumer Complaints/Inquiry and Actions Completed

There were no Complaints in the month of August, 2020.

## 2.9. Bio-Digester Operations

Date	Hydrolyzer			FOG			Digester	Digestate Storage	
	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (cm)	Liquid Level (Small) (m)	Liquid Level (Large) (m)
1	2.52	90.80	9.20	2.157	39.80	10.20	89	2	1.23
2	3	108.10	-8.10	2.662	49.11	0.89	86	2	1.25
3	2.44	87.92	12.08	1.923	35.48	14.52	85	2	1.27
4	1.82	65.58	34.42	0.962	17.75	32.25	84	2	1.32
5	1.58	56.93	43.07	2.827	52.16	-2.16	84	2	1.35
6	2.53	91.16	8.84	1.673	30.87	19.13	83	2	1.37
7	2.74	98.73	1.27	2.390	44.10	5.90	83	2	1.39
8	2.99	107.74	-7.74	1.838	33.91	16.09	85	2	1.42
9	1.40	50.44	49.56	1.347	24.85	25.15	84	2	1.45
10	1.18	42.52	57.48	1.57	21.35	28.65	83	2	1.47
11	1.58	56.93	43.07	2.167	39.98	10.02	82	2	1.51
12	2.18	78.55	21.45	2.426	44.76	5.24	82	2	1.54
13	1.58	56.93	43.07	2.133	39.35	10.65	82	2	1.56
14	2.79	100.53	-0.53	0.977	18.03	31.97	84	2	1.57
15	2.28	82.15	17.85	2.301	42.45	7.55	89	2	1.59
16	1.86	67.02	32.98	1.596	29.45	20.55	87	2	1.61
17	1.53	55.13	44.87	1.096	20.22	29.78	84	2	1.63
18	2.99	107.74	-7.74	2.440	45.02	4.98	83	2	1.65
19	3	108.10	-8.10	1.672	30.85	19.15	83	2	1.67
20	1.57	56.57	43.43	1.342	24.76	25.24	84	2	1.69
21	1.29	46.48	53.52	2.527	46.62	3.38	83	2	1.71
22	2.32	83.59	16.41	3.026	55.83	-5.83	84	2	1.72
23	1.56	56.21	43.79	1.157	21.35	28.65	84	2	1.73
24	1.46	52.61	47.39	2.451	45.22	4.78	83	2	1.74
25	2.36	85.04	14.96	2.545	46.96	3.04	83	2	1.75
26	2.98	107.38	-7.38	2.196	40.52	9.48	83	2	1.77
27	2.71	97.65	2.35	1.783	32.90	17.10	83	2	1.79
28	3	108.10	-8.10	2.748	50.70	-0.70	83	2	1.81
29	1.89	68.10	31.90	2.339	43.15	6.85	82	2	1.83
30	1.24	44.68	23.61	2.316	42.73	7.27	82	2	1.85
31	1.09	39.27	60.73	0.815	15.04	34.96	81	2	1.87

NOTE: Hydrolyzer maximum volume – 100m<sup>3</sup>      FOG maximum volume – 50m<sup>3</sup>      Digestate Storage maximum volume – 6415 m<sup>3</sup>

## 2.10.

2.11. Bio-Digester Operations – Power Production and Generator Status

Table 3 Bio-Digester Operations – Power Production and Generator Status								
Date	Time	Operator(s)	Generator Status	Intellimonitor (Kwh)	Produced (Kwh)	Active Power At time of Inspection (kw)	Generator	Run
1	9:54	TU	ON	3391408	318	36	59957	10
2	11:05	TU	OFF	3391726	25	0	59967	4
3	9:54	TU	OFF	3391751	0	0	59971	1
4	6:30	TU	OFF	3391751	34	0	59972	2
5	6:16	TU	OFF	3391785	0	0	59974	0
6	6:24	TU	OFF	3391785	31	0	59974	1
7	5:56	TU	OFF	3391816	50	0	59975	4
8	12:02	TU	OFF	3391866	46	0	59979	2
9	13:27	TU	OFF	3391912	0	0	59981	0
10	6:25	TU	OFF	3391912	71	0	59981	3
11	6:03	TU	OFF	3391983	0	0	59984	0
12	6:14	TU	OFF	3391983	0	0	59984	0
13	6:25	TU	OFF	3391983	35	0	59984	2
14	7:26	TU	OFF	3392018	864	0	59986	24
15	13:21	TU	ON	3392882	398	36	60010	12
16	6:29	TU	ON	3393280	87	35	60022	3
17	7:29	TU	ON	3393367	238	36	60025	7
18	7:08	TU	OFF	3393605	168	0	60032	6
19	7:39	TU	ON	3393773	451	35	60038	13
20	7:46	TU	ON	3394224	191	36	60051	5
21	6:29	TU	OFF	3394415	6	0	60056	1
22	12:32	TU	ON	3394421	131	35	60057	4
23	12:06	TU	ON	3394552	86	36	60061	3
24	9:09	TU	OFF	3394638	231	0	60064	6
25	9:31	TU	OFF	3394869	163	0	60070	6
26	9:43	TU	OFF	3395032	320	0	60076	11
27	9:54	TU	OFF	3395352	125	0	60087	5
28	11:35	TU	OFF	3395477	66	0	60092	3
29	11:12	TU	OFF	3395543	108	0	60095	6
30	11:08	TU	ON	3395651	111	40	6101	4
31	7:55	TU	ON	3395762	0	36	6105	0
<b>Total</b>					<b>4354</b>			<b>148</b>

NOTE: TU – Troy Unruh

2.12. Bio-Digester Operational Recommendations

No recommendations for August, 2020.

## 1. Introduction

The team of Aquatech Canadian Water Services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The following report summarizes operational data, maintenance activities and compliance issue identified during the month of September, 2020. This report includes all information required under the Georgian Bluffs / Chatsworth Services Agreement.

## 2. Wastewater System – Derby Lagoons

### 2.1. Influent Flows (sewage)

The influent flows are determined through records provided by the Septic hauler and are tabulated as follows; for the month of September, the total influent flow was 509.99 m<sup>3</sup>, with an average daily flow of 17.00 m<sup>3</sup> or approximately 29.56% of the rated capacity based on the monthly average.

### 2.2. Organic Volumes

The volumes for the organics are determined through records provided by the haulers and are tabulated as follows; for the month of September, the total volume of organics was 422.18 m<sup>3</sup> with an average daily volume of 14.07 m<sup>3</sup>.

### 2.3. Total Volumes organics/sewage

The total volume for the site are tabulated as follows; for the month of September, the total volumes was 932.17 m<sup>3</sup> with an average daily flow of 31.07 m<sup>3</sup> or approximately 54.04% of the rated capacity based on the monthly average.

### 2.4. Treated Flows

The irrigated flows were shut down on 31 October, 2019 for the season. As per the Certificate of Approval, spray irrigation will resume in May 2020. The total volume for spraying in September was 3208 m<sup>3</sup>.

**2.5. Required Analysis as per Amended Certificate of Approval #4027-84PQMX**

Table 1 Required Analysis - Adjacent Monitoring Wells/Ponds									
Date	Location	Conductivity (umho/cm)	Chlorides (mg/L)	Nitrate (mg/L)	pH	Total Phosphorus (mg/L)	Total Ammonia (mg/L)	Unionized Ammonia (mg/L)	Nitrite (mg/L)
	TW#1								
	TW#1A								
	TW#2								
	TW#2A								
	TW#3								
	TW#3A								
	TW#4								
	TW#4A								
	TW#5								
	TW#6								
	TW#6A								
	TW#7								
	TW#7A								
	TW#8								
	TW#9								
	SW-North								
	SW-East								
	SW-West								

Notes: Nitrites were non detectable, F – Frozen, TW – Test Well, SW – Surface Water Pond

**2.6. Repairs and Maintenance Details**

Routine maintenance was done on site. Propylene glycol pressure switch and gauge were replaced. Relay for governor and ignition replaced.

**2.7. Regulatory Issues**

There were no regulatory issues at the lagoon during the month of September, 2020

**2.8. Consumer Complaints/Inquiry and Actions Completed**

There were no complaints for the month of September, 2020



## 2.9. Bio-Digester Operations

Table 2 Bio-Digester Operations – Tank Level									
Date	Hydrolyzer			FOG			Digester	Digestate Storage	
	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (cm)	Liquid Level (Small) (m)	Liquid Level (Large) (m)
1	2.77	99.81	0.19	2.596	47.90	2.10	84	1.89	2
2	3	108.10	-8.10	2.330	42.99	7.01	85	1.91	2
3	2.25	81.07	18.93	2.625	48.73	1.57	83	1.93	2
4	3	108.10	-8.10	1.570	28.97	21.03	85	1.95	2
5	2.99	107.74	-7.74	1.755	32.38	17.62	88	1.97	2
6	1.31	47.20	52.80	1.302	24.02	25.98	89	1.99	2
7	1.15	41.44	58.56	1.215	22.42	27.58	85	2	2
8	0.99	35.67	64.33	0.958	17.68	32.32	84	2.01	2
9	1.16	41.80	58.50	2.255	41.60	8.40	83	2.03	2
10	1.47	52.97	47.03	2.649	48.87	1.13	83	2.05	2
11	1.40	50.44	49.56	2.554	47.12	2.88	83	2.07	2
12	2.10	75.67	24.33	2.240	41.33	8.67	83	2.09	2
13	1.31	47.20	52.80	2.509	46.29	3.71	82	2.11	2
14	1.86	67.02	32.98	2.713	50.05	-0.05	82	2.13	2
15	1.74	62.70	37.30	2.051	37.84	12.16	82	2.14	2
16	2.05	73.87	26.13	2.814	51.92	-1.92	82	2.16	2
17	2.61	94.04	5.96	2.725	50.28	-0.28	83	2.17	2
18	2.68	96.57	3.43	1.600	29.52	20.48	82	2.19	2
19	2.19	78.91	21.09	1.850	34.13	15.87	82	2.21	2
20	1.39	50.08	49.92	2.750	50.74	-0.74	82	2.23	2
21	1.18	42.52	57.48	1.119	20.65	29.35	81	2.25	2
22	1.46	52.61	47.39	1.447	26.70	23.30	81	2.27	2
23	1.24	44.68	55.32	1.003	18.51	31.49	82	2.28	2
24	1.58	56.93	43.07	3.038	56.05	-6.05	82	2.29	2
25	1.26	45.40	54.60	1.977	36.48	13.52	82	2.30	2
26	2.24	80.71	19.29	2.509	46.29	3.71	83	2.32	2
27	2.99	107.74	-7.74	1.187	21.90	28.10	83	2.33	2
28	1.91	68.82	31.18	1.963	36.22	13.78	83	2.35	2
29	2.10	75.67	24.33	2.395	44.19	5.81	82	2.37	2
30	2.97	107.02	-7.02	3.039	56.07	-6.07	81	2.39	2
31									

NOTE: Hydrolyzer maximum volume – 100m<sup>3</sup> FOG maximum volume – 50m<sup>3</sup> Digestate Storage maximum volume – 6415 m<sup>3</sup>

## 2.10. Bio-Digester Operations – Power Production and Generator Status

**Table 3**  
**Bio-Digester Operations – Power Production and Generator Status**

Date	Time	Operator(s)	Generator Status	Intellimonitor (Kwh)	Produced (Kwh)	Active Power At time of Inspection (kw)	Generator	Run
1	6:28	TU	ON	3396574	596	35	06128	17
2	7:50	TU	ON	3397170	436	35	60145	14
3	7:40	TU	ON	3397606	594	36	60159	17
4	8:42	TU	ON	3398200	956	36	60176	27
5	11:25	TU	ON	3399156	979	35	60203	27
6	14:47	TU	ON	3400135	604	40	60230	15
7	10:31	TU	OFF	3400739	310	0	60245	10
8	7:00	TU	ON	3401049	790	36	60255	22
9	8:10	TU	ON	3401839	500	35	60277	15
10	7:34	TU	ON	3402339	751	35	60292	22
11	7:53	TU	ON	3403090	456	35	60314	14
12	9:39	TU	OFF	3403546	0	0	60328	0
13	11:59	TU	OFF	3403546	0	0	60328	0
14	10:09	TU	OFF	3403546	50	0	60328	4
15	9:41	TU	OFF	3403596	0	0	60332	0
16	10:10	TU	OFF	3403596	14	0	60332	1
17	11:35	TU	OFF	3403610	6	0	60333	0
18	11:35	TU	OFF	3403616	7	0	60334	1
19	11:22	TU	ON	3403623	83	35	60337	3
20	10:38	TU	OFF	3403706	0	0	60337	0
21	7:33	TU	OFF	3403706	1	0	60339	2
22	7:16	TU	OFF	3403707	0	0	60339	0
23	7:23	TU	OFF	3403707	0	0	60339	0
24	6:48	TU	OFF	3403707	0	0	60339	0
25	6:41	TU	OFF	3403707	0	0	60339	0
26	9:15	TU	OFF	3403707	0	0	60339	0
27	7:23	TU	OFF	3403707	0	0	60339	0
28	8:41	TU	OFF	3403707	0	0	60339	0
29	7:18	TU	OFF	3403707	0	0	60339	6
30	7:22	TU	ON	3403707	0	0	60345	0
31								
<b>Total</b>					<b>7133</b>			<b>217</b>

NOTE: TU – Troy Unruh

## 2.11. Bio-Digester Operational Recommendations

No recommendations for September, 2020.

## 1. Introduction

The team of Aquatech Canadian Water Services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The following report summarizes operational data, maintenance activities and compliance issue identified during the month of October, 2020. This report includes all information required under the Georgian Bluffs / Chatsworth Services Agreement.

## 2. Wastewater System – Derby Lagoons

### 2.1. Influent Flows (sewage)

The influent flows are determined through records provided by the Septic hauler and are tabulated as follows; for the month of October, the total influent flow was 626.57 m<sup>3</sup>, with an average daily flow of 20.21 m<sup>3</sup> or approximately 35.15% of the rated capacity based on the monthly average.

### 2.2. Organic Volumes

The volumes for the organics are determined through records provided by the haulers and are tabulated as follows; for the month of October, the total volume of organics was 262.42 m<sup>3</sup> with an average daily volume of 8.47m<sup>3</sup>.

### 2.3. Total Volumes organics/sewage

The total volumes for the site are tabulated as follows; for the month of October, the total volumes was 888.99 m<sup>3</sup> with an average daily flow of 28.68 m<sup>3</sup> or approximately 49.87% of the rated capacity based on the monthly average.

### 2.4. Treated Flows

The irrigated flows were shut down on 31 October, 2020 for the season. As per the Certificate of Approval, spray irrigation will resume in May 2021. The total volume for spraying in October was 2012 m<sup>3</sup>.

## 2.5. Required Analysis as per Amended Certificate of Approval #4027-84PQMX

Table 1 Required Analysis - Adjacent Monitoring Wells/Ponds									
Date	Location	Conductivity (umho/cm)	Chlorides (mg/L)	Nitrate (mg/L)	pH	Total Phosphorus (mg/L)	Total Ammonia (mg/L)	Unionized Ammonia (mg/L)	Nitrite (mg/L)
	TW#1								
	TW#1A								
	TW#2								
	TW#2A								
	TW#3								
	TW#3A								
	TW#4								
	TW#4A								
	TW#5								
	TW#6								
	TW#6A								
	TW#7								
	TW#7A								
	TW#8								
	TW#9								
10-28-20	SW-North	1070	172	<0.05	7.99	0.10	0.07	<0.01	<0.05
10-28-20	SW-East	2900	783	0.72	8.04	0.18	0.07	<0.01	<0.5
10-28-20	SW-West	744	71.3	<0.05	8.14	0.02	0.15	0.01	<0.05

Notes: Nitrites were non detectable, F – Frozen, TW – Test Well, SW – Surface Water Pond

## 2.6. Repairs and Maintenance Details

Routine maintenance was done at the site. Boiler was cleaned and serviced. Switch for digester mixer failed and was replaced. Caldecott onsite replaced gaskets and rebuilt end of heat exchanger for engine. Exhaust heat exchanger cleaned.

## 2.7. Regulatory Issues

There were no regulatory issues at the lagoon during the month of October, 2020

## 2.8. Consumer Complaints/Inquiry and Actions Completed

There were no Complaints in the month of October, 2020.

## 2.9. Bio-Digester Operations

Date	Hydrolyzer			FOG			Digester	Digestate Storage	
	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (cm)	Liquid Level (Small) (m)	Liquid Level (Large) (m)
1	1.67	60.17	39.83	1.675	30.90	19.10	81	2.00	2.40
2	1.49	53.69	46.31	1.656	30.55	19.45	82	2.00	2.41
3	2.03	73.14	26.86	2.576	47.53	2.47	82	2.00	2.42
4	1.96	70.62	29.38	2.454	45.28	4.72	81	2.00	2.43
5	1.78	64.14	35.86	3.040	56.09	-6.09	81	2.00	2.45
6	2.96	106.65	-6.65	1.982	36.57	13.43	80	2.06	2.47
7	2.65	95.48	4.52	1.691	31.20	18.80	81	2.06	2.48
8	2.70	97.29	2.71	1.451	26.77	23.23	82	2.06	2.49
9	2.19	78.91	21.09	1.222	22.55	27.45	83	2.06	2.51
10	2.71	97.65	2.35	2.723	50.24	-0.24	81	2.06	2.52
11	2.71	97.65	2.35	2.528	46.64	3.36	80	2.06	2.53
12	2.36	85.04	14.96	2.445	45.11	4.89	80	2.06	2.54
13	2.97	107.02	-7.02	2.268	41.84	8.16	80	2.06	2.55
14	2.96	106.65	-6.65	2.575	47.51	2.49	80	2.06	2.56
15	2.97	107.02	-7.02	2.271	41.90	8.10	80	2.06	2.57
16	2.96	106.65	-6.65	1.877	34.63	15.37	79	2.06	2.58
17	2.58	92.96	7.04	2.597	47.91	2.09	79	2.06	2.59
18	2.29	82.51	17.49	2.520	46.49	3.51	79	2.06	2.60
19	2.14	77.11	22.89	2.226	41.07	8.93	113	2.06	2.61
20	2.46	88.64	11.36	2.642	48.74	1.26	79	2.06	2.62
21	2.98	107.38	-7.38	2.442	45.05	4.95	79	2.06	2.63
22	2.96	106.65	-6.65	1.816	33.51	16.49	79	2.06	2.64
23	2.36	85.04	14.96	2.624	48.41	1.59	79	2.06	2.65
24	2.80	100.89	-0.89	2.402	44.32	5.68	79	2.06	2.66
25	2.78	100.17	-0.17	2.210	40.77	9.23	78	2.06	2.67
26	2.70	97.29	2.71	2.141	39.50	10.50	77	2.06	2.68
27	2.68	96.57	3.43	1.697	31.31	18.69	113	2.06	2.69
28	2.60	93.68	6.32	1.584	29.22	20.78	113	2.06	2.70
29	2.52	90.80	9.20	2.541	46.88	3.12	114	2.06	2.71
30	2.42	87.20	12.80	2.284	42.14	7.86	141	2.06	2.72
31	3	108.10	-8.10	1.602	29.56	20.44	142	2.06	2.73

NOTE: Hydrolyzer maximum volume – 100m<sup>3</sup>      FOG maximum volume – 50m<sup>3</sup>      Digestate Storage maximum volume – 6415 m<sup>3</sup>

## 2.10.

2.11. Bio-Digester Operations – Power Production and Generator Status

Table 3 Bio-Digester Operations – Power Production and Generator Status								
Date	Time	Operator(s)	Generator Status	Intellimonitor (Kwh)	Produced (Kwh)	Active Power At time of Inspection (kw)	Generator	Run
1	14.:40	TU	OFF	3403747	0	0	60347	0
2	8:52	TU	OFF	3403747	350	0	60347	7
3	8:02	TU	ON	3404097	1155	50	60354	26
4	12:35	TU	ON	3405252	855	54	60380	18
5	7:20	TU	ON	3406107	1047	50	60398	23
6	7:33	TU	ON	3407154	1023	40	60421	22
7	7:04	TU	ON	3408177	1093	43	60443	23
8	6:24	TU	ON	3409270	1196	40	60466	25
9	7:07	TU	ON	3410466	1118	55	60491	23
10	7:55	TU	ON	3411584	960	55	60514	21
11	7:23	TU	ON	3412544	1105	36	60535	24
12	7:44	TU	ON	3413649	958	36	60559	21
13	8:10	TU	ON	3414607	1330	55	60580	29
14	13:59	TU	ON	3415937	964	37	60609	21
15	11:54	TU	ON	3416901	1028	55	60630	22
16	9:54	TU	ON	3417929	848	55	60652	18
17	5:19	TU	ON	3418777	1204	55	60670	26
18	11:42	TU	ON	3419981	833	55	60696	19
19	7:35	TU	ON	3420814	1004	55	60715	22
20	6:43	TU	ON	3421818	1095	35	60737	24
21	7:45	TU	ON	3422913	1071	55	60761	23
22	7:14	TU	ON	3423984	1012	55	60784	22
23	7:34	TU	ON	3424996	0	35	60806	0
24	11:33	TU	OFF	3424996	0	0	60806	0
25	10:00	TU	OFF	3424996	0	0	60806	0
26	6:41	TU	OFF	3424996	0	0	60806	0
27	6:38	TU	OFF	3424996	0	0	60806	0
28	7:16	TU	OFF	3424996	0	0	60806	0
29	7:23	TU	OFF	3424996	0	0	60806	0
30	7:05	TU	OFF	3424996	0	0	60806	0
31	14:25	TU	OFF	3424996	0	0	60806	0
<b>Total</b>					<b>21249</b>			<b>459</b>

NOTE: TU – Troy Unruh

2.12. Bio-Digester Operational Recommendations

No recommendations for October, 2020.

## 1. Introduction

The team of Aquatech Canadian Water Services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The following report summarizes operational data, maintenance activities and compliance issue identified during the month of November, 2020. This report includes all information required under the Georgian Bluffs / Chatsworth Services Agreement.

## 2. Wastewater System – Derby Lagoons

### 2.1. Influent Flows (sewage)

The influent flows are determined through records provided by the Septic hauler and are tabulated as follows; for the month of November, the total influent flow was 633.05 m<sup>3</sup>, with an average daily flow of 21.10 m<sup>3</sup> or approximately 36.70% of the rated capacity based on the monthly average.

### 2.2. Organic Volumes

The volumes for the organics are determined through records provided by the haulers and are tabulated as follows; for the month of November, the total volume of organics was 185.89 m<sup>3</sup> with an average daily volume of 6.20m<sup>3</sup>.

### 2.3. Total Volumes organics/sewage

The total volume for the site are tabulated as follows; for the month of November, the total volumes was 818.94 m<sup>3</sup> with an average daily flow of 27.30 m<sup>3</sup> or approximately 47.47% of the rated capacity based on the monthly average.

### 2.4. Treated Flows

The irrigated flows were shut down on 31 October, 2020 for the season. As per the Certificate of Approval, spray irrigation will resume in May 2021.



## 2.5. Required Analysis as per Amended Certificate of Approval #4027-84PQMX

Table 1 Required Analysis - Adjacent Monitoring Wells/Ponds									
Date	Location	Conductivity (umho/cm)	Chlorides (mg/L)	Nitrate (mg/L)	pH	Total Phosphorus (mg/L)	Total Ammonia (mg/L)	Unionized Ammonia (mg/L)	Nitrite (mg/L)
29/11/20	TW#1	897	125	0.36					
29/11/20	TW#1A	1230	161	4.25					
29/11/20	TW#2	1050	172	<0.05					
29/11/20	TW#2A	1250	221	1.60					
29/11/20	TW#3	665	57.6	0.06					
29/11/20	TW#3A	669	51	<0.05					
29/11/20	TW#4	912	120	<0.05					
29/11/20	TW#4A	1070	175	0.05					
29/11/20	TW#5	473	5.3	<0.05					
29/11/20	TW#6	1100	176	0.86					
29/11/20	TW#6A	1140	185	0.88					
29/11/20	TW#7	703	68.2	<0.05					
29/11/20	TW#7A	663	65.9	1.32					
29/11/20	TW#8	1010	154	1.31					
29/11/20	TW#9	526	15.0	<0.05					
29/11/20	Pr#1	1110	169	1.52					
29/11/20	Pr#2	4140	1290	1.43					
	SW-West								

Notes: Nitrites were non detectable, F – Frozen, TW – Test Well, SW – Surface Water Pond

## 2.6. Repairs and Maintenance Details

Routine maintenance was done at the site. Seagar compressor switch replaced, intercooler, water pump repaired and serviced. Generator bearing replaced and serviced, new control valve for digester heating loop, engine for generator rebuilt, new expansion tank installed and new seals and lines for coolant system.

## 2.7. Regulatory Issues

There were no regulatory issues at the lagoon during the month of November, 2020

## 2.8. Consumer Complaints/Inquiry and Actions Completed

There were no Complaints in the month of November, 2020.

## 2.9. Bio-Digester Operations

Date	Hydrolyzer			FOG			Digester	Digestate Storage	
	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (cm)	Liquid Level (Small) (m)	Liquid Level (Large) (m)
1	2.75	99.09	0.91	1.528	28.19	21.81	141	2.09	2.75
2	2.57	92.60	7.40	1.654	30.52	19.48	140	2.09	2.75
3	2.28	82.15	17.85	0.912	16.83	33.17	141	2.09	2.76
4	1.96	70.62	29.38	3.030	55.90	-5.90	141	2.09	2.76
5	1.70	61.25	38.75	1.086	20.04	29.96	141	2.09	2.77
6	1.55	55.85	44.15	0.942	17.38	32.62	141	2.09	2.77
7	1.49	53.69	46.31	3.040	56.09	-6.09	141	2.09	2.78
8	1.50	54.05	45.95	1.331	24.56	25.44	141	2.09	2.78
9	1.46	52.61	47.39	2.296	42.36	7.64	141	2.09	2.79
10	1.43	51.53	48.47	1.238	22.84	27.16	141	2.09	2.79
11	1.41	50.81	49.19	2.196	40.52	9.48	140	2.09	2.21
12	1.43	51.53	48.47	1.385	25.55	24.45	140	2.09	2.22
13	1.39	50.08	49.92	1.077	19.87	30.13	140	2.09	1.45
14	1.33	47.92	52.08	2.810	51.84	-1.84	140	2.09	0.81
15	1.30	46.84	53.16	1.308	24.13	25.87	140	2.09	0.57
16	1.20	43.24	56.76	1.141	21.05	28.95	139	2.09	0.58
17	1.59	57.29	42.71	3.040	56.09	-6.09	139	2.09	0.58
18	1.96	70.62	29.38	2.426	44.76	5.24	139	2.09	0.59
19	1.87	67.38	32.62	2.197	40.53	9.47	139	2.09	0.59
20	2.96	106.65	-6.65	3.036	46.01	-6.01	139	2.09	0.60
21	2.48	89.36	10.64	3.035	56.00	-6.00	139	2.09	0.61
22	2.40	86.48	13.52	1.984	36.60	13.40	139	2.09	0.62
23	2.95	106.29	-6.29	1.664	30.70	19.30	139	2.09	0.63
24	2.66	95.85	4.15	1.970	36.35	13.65	138	2.09	0.64
25	2.95	106.29	6-.29	1.725	31.83	18.17	139	2.09	0.64
26	2.33	83.95	16.05	2.133	39.35	10.65	139	2.09	0.65
27	2.31	83.23	16.77	1.929	35.59	14.41	138	2.09	0.65
28	2.44	87.92	12.08	2.633	48.58	1.42	138	2.09	0.66
29	2.81	101.25	-1.25	2.522	46.53	3.47	139	2.09	0.67
30	2.68	96.57	3.43	3.034	55.98	-5.98	139	2.09	0.68
31									

NOTE: Hydrolyzer maximum volume – 100m<sup>3</sup> FOG maximum volume – 50m<sup>3</sup> Digestate Storage maximum volume – 6415 m<sup>3</sup>

## 2.10.

2.11. Bio-Digester Operations – Power Production and Generator Status

Table 3 Bio-Digester Operations – Power Production and Generator Status								
Date	Time	Operator(s)	Generator Status	Intellimonitor (Kwh)	Produced (Kwh)	Active Power At time of Inspection (kw)	Generator	Run
1	7:17	TU	OFF	3424996	0	0	60806	0
2	7:16	TU	OFF	3424996	0	0	60806	0
3	7:32	TU	OFF	3424996	0	0	60806	0
4	6:39	TU	OFF	3424996	0	0	60806	0
5	6:02	TU	OFF	3424996	0	0	60806	0
6	7:00	TU	OFF	3424996	0	0	60806	0
7	7:07	TU	OFF	3424996	0	0	60806	0
8	7:58	TU	OFF	3424996	0	0	60806	0
9	7:11	TU	OFF	3424996	0	0	60806	0
10	7:07	TU	OFF	3424996	0	0	60806	0
11	10:08	TU	OFF	3424996	0	0	60806	0
12	6:39	TU	OFF	3424996	0	0	60806	0
13	6:27	TU	OFF	3424996	0	0	60806	0
14	11:04	TU	OFF	3424996	0	0	60806	0
15	13:44	TU	OFF	3424996	0	0	60806	0
16	6:43	TU	OFF	3424996	0	0	60806	0
17	7:11	TU	OFF	3424996	0	0	60806	0
18	10:02	TU	OFF	3424996	0	0	60806	0
19	6:11	TU	OFF	3424996	0	0	60806	0
20	7:00	TU	OFF	3424996	0	0	60806	0
21	10:02	TU	OFF	3424996	0	0	60806	0
22	14:30	TU	OFF	3424996	932	0	60806	21
23	8:36	TU	OFF	3425928	0	0	60827	0
24	7:36	TU	OFF	3425928	0	0	60827	0
25	8:47	TU	OFF	3425928	0	0	60827	0
26	6:55	TU	OFF	3425928	0	0	60827	0
27	8:53	TU	OFF	3425928	0	0	60827	0
28	8:01	TU	OFF	3425928	0	0	60827	0
29	11:03	TU	OFF	3425928	0	0	60827	0
30	6:29	TU	OFF	3425928	0	0	60827	0
31								
<b>Total</b>					<b>932</b>			<b>21</b>

NOTE: TU – Troy Unruh

2.12. Bio-Digester Operational Recommendations

No recommendations for November, 2020.

## 1. Introduction

The team of Aquatech Canadian water services Inc. and GSS Engineering Consultants Inc. took over the operation of the Georgian Bluffs / Chatsworth Biodigester and the Derby Wastewater Treatment plant on January 1, 2016. The following report summarizes operational data, maintenance activities and compliance issue identified during the month of December, 2020. This report includes all information required under the Georgian Bluffs / Chatsworth Services Agreement.

## 2. Wastewater System – Derby Lagoons

### 2.1. Influent Flows (sewage)

The influent flows are determined through records provided by the Septic hauler and are tabulated as follows; for the month of December, the total influent flow was 866.49 m<sup>3</sup>, with an average daily flow of 27.95 m<sup>3</sup> or approximately 48.61% of the rated capacity based on the monthly average.

### 2.2. Organic Volumes

The volumes for the organics are determined through records provided by the haulers and are tabulated as follows; for the month of December, the total volume of organics was 197.87 m<sup>3</sup> with an average daily volume of 6.38 m<sup>3</sup>.

### 2.3. Total Volumes organics/sewage

The total volumes for the site are tabulated as follows; for the month of December, the total volumes was 1064.36 m<sup>3</sup> with an average daily flow of 34.33 m<sup>3</sup> or approximately 59.71% of the rated capacity based on the monthly average.

### 2.4. Treated Flows

The irrigated flows were shut down on 31 October, 2020 for the season. As per the Certificate of Approval, spray irrigation will resume in May 2021.

**2.5. Required Analysis as per Amended Certificate of Approval #2206-8KSQZV**

Table 1 Required Analysis - Adjacent Monitoring Wells/Ponds									
Date	Location	Conductivity (umho/cm)	Chlorides (mg/L)	Nitrate (mg/L)	pH	Total Phosphorus (mg/L)	Total Ammonia (mg/L)	Unionized Ammonia (mg/L)	Nitrite (mg/L)
	TW#1								
	TW#1A								
	TW#2								
	TW#2A								
	TW#3								
	TW#3A								
	TW#4								
	TW#4A								
	TW#5								
	TW#6								
	TW#6A								
	TW#7								
	TW#7A								
	TW#8								
	TW#9								
	SW-North								
	SW-East								
	SW-West								

Notes: Nitrites were non detectable, F – Frozen, TW – Test Well, SW – Surface Water Pond

**2.6. Repairs and Maintenance Details**

Routine maintenance was done at the site.

**2.7. Regulatory Issues**

There were no regulatory issues at the lagoon during the month of December, 2020.

**2.8. Consumer Complaints/Inquiry and Actions Completed**

There were no Complaints in the month of December, 2020.

## 2.9. Bio-Digester Operations

Table 2 Bio-Digester Operations – Tank Level									
Date	Hydrolyzer			FOG			Digester	Digestate Storage	
	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (m <sup>3</sup> )	Stored Waste Volume (m <sup>3</sup> )	Available Waste Volume (m <sup>3</sup> )	Liquid Level (cm)	Liquid Level (Small) (m)	Liquid Level (Large) (m)
1	2.60	93.68	6.32	2.620	48.34	1.66	138	2.10	0.69
2	2.46	88.64	11.36	2.284	42.14	7.86	138	2.10	0.69
3	2.36	85.04	14.96	2.770	51.11	-1.11	138	2.10	0.70
4	2.98	107.38	-7.38	3.012	55.57	-5.57	138	2.10	0.71
5	2.85	102.69	-2.69	2.686	49.56	0.44	138	2.10	0.72
6	2.93	105.57	-5.57	3.030	55.90	-5.90	138	2.10	0.73
7	2.24	80.71	19.29	1.918	35.39	14.61	138	2.10	0.74
8	2.65	95.48	4.52	2.994	55.24	-5.24	138	2.10	0.75
9	3.00	108.10	-8.10	3.042	56.12	-6.12	138	2.10	0.76
10	2.83	101.97	-1.97	2.772	51.14	-1.14	138	2.10	0.77
11	3.00	108.10	-8.10	3.029	55.89	-5.89	138	2.10	0.78
12	2.77	99.81	0.19	2.759	50.90	-0.90	138	2.10	0.79
13	2.40	86.48	13.52	3.031	55.92	-5.92	138	2.10	0.80
14	3.00	108.10	-8.10	2.043	37.69	12.31	138	2.10	0.81
15	3.02	108.82	-8.82	3.027	55.85	-5.85	138	2.10	0.82
16	2.45	88.28	11.72	2.885	53.23	-3.23	138	2.10	0.83
17	3.00	108.10	-8.10	2.611	48.17	1.83	138	2.10	0.84
18	2.75	99.09	0.91	1.790	3303	16.97	138	2.10	0.85
19	3.04	109.61	-9.61	2.645	48.80	1.20	138	2.10	0.86
20	2.77	99.81	0.19	2.194	40.48	9.52	138	2.10	0.87
21	2.20	79.27	20.73	1.795	33.12	16.88	138	2.10	0.88
22	2.54	91.52	8.48	1.926	35.53	14.47	138	2.10	0.89
23	2.40	86.48	13.52	1.710	31.55	18.45	138	2.10	0.90
24	3.00	108.10	-8.10	3.042	56.12	-6.12	138	2.10	0.91
25	1.21	43.60	56.40	2.427	44.78	5.22	138	2.10	0.92
26	2.96	106.65	-6.65	2.689	49.61	0.39	138	2.10	0.93
27	1.75	63.06	36.94	2.785	51.38	-1.38	139	2.10	0.94
28	2.84	102.33	-2.33	1.305	24.08	25.92	138	2.10	0.95
29	2.81	101.25	-1.25	2.839	52.38	-2.38	138	2.10	0.96
30	2.01	72.42	27.58	2.810	51.84	-1.84	138	2.10	0.97
31	2.88	103.77	-3.77	2.528	46.64	3.36	138	2.10	0.98

NOTE: Hydrolyzer maximum volume – 100m<sup>3</sup> FOG maximum volume – 50m<sup>3</sup> Digestate Storage maximum volume – 6415 m<sup>3</sup>

### 2.10. Bio-Digester Operations – Power Production and Generator Status

Table 3 Bio-Digester Operations – Power Production and Generator Status								
Date	Time	Operator(s)	Generator Status	Intellimonitor (Kwh)	Produced (Kwh)	Active Power At time of Inspection (kw)	Generator	Run
1	8:27	TU	OFF	3425928	0	0	60827	0
2	8:59	TU	OFF	3425928	0	0	60827	0
3	6:22	TU	OFF	3425928	0	0	60827	0
4	7:03	TU	OFF	3425928	0	0	60827	0
5	12:00	TU	OFF	3425928	0	0	60827	0
6	11:46	TU	OFF	3425928	0	0	60827	0
7	7:19	TU	OFF	3425928	5	0	60827	1
8	8:58	TU	OFF	3425933	0	0	60828	0
9	12:20	TU	OFF	3425933	0	0	60828	0
10	6:30	TU	OFF	3425933	0	0	60828	0
11	7:31	TU	OFF	3425933	0	0	60828	0
12	12:03	TU	OFF	3425933	0	0	60828	0
13	11:41	TU	OFF	3425933	0	0	60828	0
14	5:57	TU	OFF	3425933	0	0	60828	0
15	6:47	TU	OFF	3425933	0	0	60828	0
16	7:04	TU	OFF	3425933	0	0	60828	0
17	6:17	TU	OFF	3425933	0	0	60828	0
18	7:27	TU	OFF	3425933	0	0	60828	0
19	8:57	TU	OFF	3425933	0	0	60828	0
20	10:10	TU	OFF	3425933	0	0	60828	0
21	6:53	TU	OFF	3425933	0	0	60828	0
22	6:58	TU	OFF	3425933	0	0	60828	0
23	6:53	TU	OFF	3425933	0	0	60828	0
24	6:43	TU	OFF	3425933	0	0	60828	0
25	10:12	TU	OFF	3425933	0	0	60828	0
26	10:54	TU	OFF	3425933	0	0	60828	0
27	13:14	TU	OFF	3425933	0	0	60828	0
28	10:52	TU	OFF	3425933	0	0	60828	0
29	16:50	TU	OFF	3425933	0	0	60828	0
30	6:55	TU	OFF	3425933	0	0	60828	0
31	7:28	TU	OFF	3425933	0	0	60828	0
<b>Total</b>					<b>5</b>			<b>1</b>

NOTE: TU – Troy Unruh

### 2.11. Bio-Digester Operational Recommendations

No recommendations for December, 2020.



Account	Description	2018		2019		2020		2021
		Budget	Actual Cost	Budget	Actual Cost	Budget	Actual Cost	Budget
	<b>Expenses</b>							
04-1061-1249	V238 Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85.11	\$ -
04-1061-1281	V238 Repairs & Maintenance	\$ 500.00	\$ 1,552.72	\$ 500.00	\$ 708.25	\$ 500.00	\$ 32.24	\$ 1,000.00
04-1062-1110	Salaries	\$ 23,000.00	\$ 25,599.11	\$ 25,000.00	\$ 26,471.18	\$ 25,000.00	\$ 18,515.06	\$ 30,000.00
04-1062-1111	Benefits	\$ 7,000.00	\$ 7,677.07	\$ 8,000.00	\$ 7,781.71	\$ 8,000.00	\$ 4,708.00	\$ 8,000.00
04-1062-1242	Heat & Hydro	\$ 40,000.00	\$ 33,171.84	\$ 30,000.00	\$ 30,380.05	\$ 30,000.00	\$ 32,233.25	\$ 30,000.00
04-1062-1249	Materials & Supplies	\$ 1,500.00	\$ 2,968.47	\$ 2,500.00	\$ 6,843.76	\$ 2,500.00	\$ 2,159.06	\$ 7,000.00
04-1062-1252	Audit Fees	\$ 11,500.00	\$ 6,970.00	\$ 8,500.00	\$ 7,950.00	\$ 8,500.00	\$ 10,467.50	\$ 9,000.00
04-1062-1253	Service Contracts - Sunset Strip	\$ -	\$ 45,543.55	\$ 45,000.00	\$ 41,623.03	\$ 45,000.00	\$ 36,771.55	\$ 45,000.00
04-1062-1254	Service Contracts	\$ 105,000.00	\$ 121,858.50	\$ 115,050.00	\$ 32,621.97	\$ 20,000.00	\$ 20,848.71	\$ 30,000.00 *admin fee to GB and Wright's
04-1062-1255	Telephone/Internet	\$ 750.00	\$ 740.00	\$ 750.00	\$ 1,020.00	\$ 750.00	\$ 820.00	\$ 1,000.00
04-1062-1256	Membership Fees	\$ 750.00	\$ 675.00	\$ 700.00	\$ -	\$ 700.00	\$ 675.00	\$ 700.00
04-1062-1258	Insurance	\$ 13,500.00	\$ 13,936.32	\$ 14,000.00	\$ 14,190.12	\$ 14,000.00	\$ 15,054.12	\$ 17,000.00
04-1062-1259	Other Services	\$ -	\$ 2,941.80	\$ -	\$ 1,560.15	\$ -	\$ 32,263.83	\$ -
04-1062-1260	Professional Fees - Maintenance	\$ -	\$ -	\$ 20,000.00	\$ 81,915.00	\$ 115,050.00	\$ 86,089.33	\$ 90,000.00 * GSS engineering
04-1062-1261	Professional Fees - Spec Projects	\$ 25,000.00	\$ 1,920.94	\$ -	\$ -	\$ -	\$ -	\$ -
04-1062-1280	Septage Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
04-1062-1281	Repairs & Maintenance	\$ 20,000.00	\$ 20,879.20	\$ 20,000.00	\$ 27,406.80	\$ 20,000.00	\$ 9,000.84	\$ 25,000.00
04-1062-1283	Digestate Disposal	\$ 65,000.00	\$ 31,355.63	\$ 60,000.00	\$ 94,884.14	\$ 60,000.00	\$ 57,633.16	\$ 60,000.00
04-1062-1284	Loss (Gain) on disposal of assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,456.20	\$ -
04-1062-1289	Taxes	\$ 15,000.00	\$ 14,963.33	\$ 15,000.00	\$ 15,356.22	\$ 15,000.00	\$ 15,534.40	\$ 16,000.00
04-1062-1290	Capital	\$ -	\$ -	\$ -	\$ 33,200.00	\$ -	\$ 28,478.66	\$ 119,000.00
	<b>Total Expenses</b>	<b>328,500.00</b>	<b>332,753.48</b>	<b>365,000.00</b>	<b>423,912.38</b>	<b>365,000.00</b>	<b>414,826.02</b>	<b>488,700.00</b>
	<b>Revenues</b>							
04-1064-7110	Tipping Fees	\$ (60,000.00)	\$ (52,478.92)	\$ (60,000.00)	\$ (56,846.59)	\$ (60,000.00)	\$ (75,958.89)	\$ (60,000.00)
04-1064-7111	Sunset Strip Sewage	\$ (19,000.00)	\$ (72,697.88)	\$ (85,000.00)	\$ (72,857.69)	\$ (85,000.00)	\$ (64,213.95)	\$ (85,000.00)
04-1064-7112	Hydro Generating	\$ (75,000.00)	\$ (78,657.69)	\$ (80,000.00)	\$ (43,322.14)	\$ (80,000.00)	\$ (7,752.49)	\$ (80,000.00)
04-1064-7113	Hauled Sewage	\$ (15,000.00)	\$ (17,255.75)	\$ (17,000.00)	\$ (12,819.75)	\$ (17,000.00)	\$ (10,774.50)	\$ (17,000.00)
04-1064-7114	Restaurant Waste	\$ -	\$ -	\$ (3,000.00)	\$ -	\$ (3,000.00)	\$ -	\$ (3,000.00)
04-1064-7115	Bank Interest Earned	\$ (2,000.00)	\$ (3,589.16)	\$ -	\$ (3,894.57)	\$ -	\$ (2,431.27)	\$ -
04-1064-7116	Miscellaneous Revenue	\$ -	\$ (5,098.00)	\$ -	\$ -	\$ -	\$ -	\$ (119,000.00)
04-1064-7200	Transfer From GB (Operating)	\$ (78,750.00)	\$ (84,044.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (62,350.00)
04-1064-7201	Transfer From Chats (Operating)	\$ (78,750.00)	\$ (84,044.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (60,000.00)	\$ (62,350.00)
04-1064-7210	Transfer from GB (Capital)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
04-1064-7211	Transfer from Chats (Capital)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total Revenues</b>	<b>(328,500.00)</b>	<b>(397,865.40)</b>	<b>(365,000.00)</b>	<b>(309,740.74)</b>	<b>(365,000.00)</b>	<b>(281,131.10)</b>	<b>(488,700.00)</b>

	2018	2019	2020	2021 Propose Projects
<b>CAPITAL INVESTMENT DETAILS</b>	No capital work completed	Purchased materials for engine rebuild	Completed engine rebuild Purchased Heater for Facility	\$100,000 Membrane/Netting/Clean out of the Bio-Dig \$12,000 Mixer Replacement \$7000 Gas Booster