PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
July 2017

Digested Sludge: Total Monthly Volume (ML)	64.68

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent					
			Non UV Disinfected			UV Disinfected		
		RAW	OUTFALL 30	OUTFALL 20	MPW	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE
Sat 01	633.56	281.29	16.87	0.00	10.94	0.00	253.48	253.48
Sun 02	359.29	248.51	0.00	0.00	10.49	0.00	238.02	238.02
Mon 03	390.94	264.19	0.00	0.00	11.07	0.00	253.12	253.12
Tue 04	368.97	272.77	0.00	0.00	12.06	0.00	260.71	260.71
Wed 05	367.09	270.15	0.00	0.00	11.92	0.00	258.23	258.23
Thu 06	358.16	269.13	0.00	0.00	11.50	0.00	257.63	257.63
Fri 07	365.66	267.02	0.00	0.00	11.06	0.00	255.96	255.96
Sat 08	367.82	271.43	0.00	0.00	13.38	0.00	258.05	258.05
Sun 09	365.14	257.12	0.00	0.00	13.34	0.00	243.78	243.78
Mon 10	360.54	271.08	0.00	0.00	13.30	0.00	257.78	257.78
Tue 11	382.00	270.40	0.00	0.00	13.19	0.00	257.21	257.21
Wed 12	414.78	271.53	0.00	0.00	13.38	0.00	258.15	258.15
Thu 13	871.87	310.84	40.75	0.00	13.37	0.00	256.72	256.72
Fri 14	424.94	278.33	2.01	0.00	12.53	0.00	263.79	263.79
Sat 15	449.65	253.82	0.00	0.00	11.49	0.00	242.33	242.33
Sun 16	462.15	250.80	0.00	0.00	10.68	0.00	240.12	240.12
Mon 17	456.05	256.64	0.00	0.00	10.60	0.00	246.04	246.04
Tue 18	339.04	255.61	0.00	0.00	10.88	0.00	244.73	244.73
Wed 19	348.11	259.96	0.00	0.00	3.93	0.00	256.03	256.03
Thu 20	1,047.37	306.24	45.47	0.00	12.44	0.00	248.33	248.33
Fri 21	888.00	347.80	41.41	0.00	12.03	0.00	294.36	294.36
Sat 22	362.14	259.34	0.00	0.00	11.63	0.00	247.71	247.71
Sun 23	817.30	294.82	37.86	0.00	10.47	0.00	246.49	246.49
Mon 24	882.15	508.30	171.36	0.00	10.22	0.00	326.72	326.72
Tue 25	412.87	315.26	3.10	0.00	10.00	0.00	302.16	302.16
Wed 26	372.39	285.01	0.00	0.00	9.97	0.00	275.04	275.04
Thu 27	432.64	286.60	1.35	0.00	9.73	0.00	275.52	275.52
Fri 28	422.92	294.01	4.24	0.00	10.26	0.00	279.51	279.51
Sat 29	509.93	322.44	13.58	0.00	9.86	0.00	299.00	299.00
Sun 30	370.86	266.78	0.00	0.00	10.30	0.00	256.48	256.48
Mon 31	354.98	266.60	0.00	0.00	9.22	0.00	257.38	257.38
Average	482.56	284.96	12.19	0.00	11.14	0.00	261.63	261.63
Minimum	339.04	248.51	0.00	0.00	3.93	0.00	238.02	238.02
Maximum	1,047.37	508.30	171.36	0.00	13.38	0.00	326.72	326.72
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	8,834	378	0	345	0	8,111	8,111

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL 30	pH@25°C OUTFALL 20	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Sat 01	7.6	7.8		7.6	256	73			7.4	7.4
Sun 02	7.6			7.5	228				6.3	6.3
Mon 03	7.6			7.5	226				5.1	5.1
Tue 04	7.6			7.7	257				7.1	7.1
Wed 05	7.6			7.7	436				7.4	7.4
Thu 06	7.6			7.7	264				8.0	8.0
Fri 07	7.6			7.7	292				9.2	9.2
Sat 08	7.6			7.6	292				7.7	7.7
Sun 09	7.6			7.5	312				8.6	8.6
Mon 10	7.6			7.6	300				8.8	8.8
Tue 11	7.7			7.6	320				8.5	8.5
Wed 12	7.5			7.6	324				10.9	10.9
Thu 13	7.5	7.5		7.5	572	99			9.1	9.1
Fri 14	7.6			7.4	304				8.3	8.3
Sat 15	7.5			7.5	280				7.6	7.6
Sun 16	7.6			7.5	256				6.6	6.6
Mon 17	7.6			7.5	243				8.3	8.3
Tue 18	7.6			7.6	280				8.4	8.4
Wed 19	7.6			7.6	231				8.6	8.6
Thu 20	7.6	7.6		7.6	460	104			11.0	11.0
Fri 21	7.5	7.4		7.4	548	49			9.8	9.8
Sat 22	7.7			7.5	266				6.8	6.8
Sun 23	7.6	7.3		7.5	348	56			7.5	7.5
Mon 24	7.5	7.4		7.4	266	41			7.2	7.2
Tue 25	7.7	8.1		7.4	268	23			6.5	6.5
Wed 26	7.7			7.5	297				7.5	7.5
Thu 27	7.6			7.5	289				6.3	6.3
Fri 28	7.7	8.3		7.6	300	26			5.7	5.7
Sat 29	7.6	7.9		7.5	293	46			7.4	7.4
Sun 30	7.6			7.6	300				7.5	7.5
Mon 31	7.7			7.6	380				7.2	7.2
Average	7.6	7.7	---	7.5	313	57	---	---	7.8	7.8
Minimum	7.5	7.3	---	7.4	226	23	---	---	5.1	5.1
Maximum	7.7	8.3	---	7.7	572	104	---	---	11.0	11.0
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L) RAW (BOD_5)	OUTFALL 30 (BOD_5)	OUTFALL 20 (BOD_5)	EPEPS (BOD_5)	OUTFALL 10 FEC ($cBOD_5$)	OUTFALL 10 FE ($cBOD_5$)	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Sat 01	296	128			3	3	7.20	4.90			0.28	0.28
Sun 02	216				3	3	7.16				0.26	0.26
Mon 03	251				3	3	7.33				0.29	0.29
Tue 04	268				3	3	6.83				0.33	0.33
Wed 05	289				4	4	8.02				0.37	0.37
Thu 06	269				5	5	7.14				0.38	0.38
Fri 07	322				5	5	7.43				0.40	0.40
Sat 08	269				5	5	6.92				0.36	0.36
Sun 09	258				4	4	7.23				0.38	0.38
Mon 10	279				5	5	7.31				0.41	0.41
Tue 11	238				5	5	7.29				0.40	0.40
Wed 12	210				6	6	8.00				0.53	0.53
Thu 13	232	130			6	6	7.83	4.92			0.57	0.57
Fri 14	251				3	3	7.89				0.46	0.46
Sat 15	250				4	4	7.92				0.42	0.42
Sun 16	287				5	5	7.78				0.37	0.37
Mon 17	262				4	4	7.61				0.42	0.42
Tue 18	275				4	4	7.93				0.43	0.43
Wed 19	280				5	5	7.94				0.41	0.41
Thu 20	233	120			5	5	7.83	4.07			0.45	0.45
Fri 21	230	53			6	6	7.07	1.88			1.31	1.31
Sat 22	241				4	4	7.32				0.34	0.34
Sun 23	193	120			4	4	7.34	3.93			0.31	0.31
Mon 24	142	47			5	5	4.87	2.41			0.35	0.35
Tue 25	235	57			4	4	6.70	2.17			0.30	0.30
Wed 26	224				4	4	7.64				0.33	0.33
Thu 27	215				4	4	7.67				0.32	0.32
Fri 28	242	90			4	4	7.57	3.94			0.34	0.34
Sat 29	283	108			4	4	7.13	4.88			0.33	0.33
Sun 30	235				3	3	7.87				0.36	0.36
Mon 31	311				4	4	9.37				0.33	0.33
Average	251	95	---	---	4.3	4.3	7.46	3.68	---	---	0.40	0.40
Minimum	142	47	---	---	3.0	3.0	4.87	1.88	---	---	0.26	0.26
Maximum	322	130	---	---	6.0	6.0	9.37	4.92	---	---	1.31	1.31
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Sat 01	33.2	28.8			0.433	0.433	51.1	45.2		2.21
Sun 02	37.2				0.429	0.429	52.0			2.16
Mon 03	36.9				0.951	0.951	54.5			2.63
Tue 04	38.6				1.090	1.090	53.5			2.86
Wed 05	38.9				0.777	0.777	62.2			2.69
Thu 06	40.6				0.586	0.586	54.5			2.64
Fri 07	38.7				0.617	0.617	56.4			2.55
Sat 08	37.0				0.369	0.369	50.8			2.31
Sun 09	37.5				0.366	0.366	54.1			2.33
Mon 10	38.4				0.477	0.477	53.7			2.35
Tue 11	31.6				0.736	0.736	53.0			2.75
Wed 12	30.6				1.14	1.14	60.1			3.80
Thu 13	25.6	28.2			0.933	0.933	53.1	42.3		3.53
Fri 14	30.8				0.389	0.389	56.2			2.48
Sat 15	35.9				0.443	0.443	57.7			2.40
Sun 16	40.9				0.418	0.418	60.5			2.20
Mon 17	36.2				0.529	0.529	57.5			2.39
Tue 18	39.6				0.423	0.423	59.7			2.48
Wed 19	37.1				0.601	0.601	60.2			2.92
Thu 20	34.6	26.4			0.430	0.430	55.0	36.3		2.66
Fri 21	28.5	17.8			2.78	2.780	48.7	20.4		5.03
Sat 22	28.3				1.47	1.47	51.3			3.47
Sun 23	25.6	28.8			0.635	0.635	52.7	35.7		2.63
Mon 24	20.5	23.4			0.360	0.360	31.9	28.5		2.26
Tue 25	31.8	23.0			0.434	0.434	45.6	28.0		1.96
Wed 26	36.5				0.751	0.751	53.5			2.62
Thu 27	35.3				0.474	0.474	53.3			2.32
Fri 28	34.9	32.9			0.447	0.447	50.2	40.9		2.36
Sat 29	30.0	30.5			0.373	0.373	47.1	38.9		2.16
Sun 30	38.0				0.579	0.579	58.3			2.71
Mon 31	40.6				0.460	0.460	62.1			2.21
Average	34.5	26.6	---	---	0.674	0.674	53.9	35.1	---	2.65
Minimum	20.5	17.8	---	---	0.360	0.360	31.9	20.4	---	1.96
Maximum	40.9	32.9	---	---	2.78	2.78	62.2	45.2	---	5.03
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 20	NO_2+NO_3 OUTFALL 10 FEC	Chloride (mg/L) RAW	Chloride OUTFALL 30	Chloride OUTFALL 20	Chloride OUTFALL 10 FEC	*E. coli* (Counts/100 mL) RAW	*E. coli* OUTFALL 30	*E. coli* OUTFALL 20	*E. coli* OUTFALL 10 FEC
Sat 01		0.153		9.67	79.1	71.8		84.9		1.6		6
Sun 02				9.95	76.0			88.7				10
Mon 03				13.8	85.3			83.7				7
Tue 04				11.4	79.9			88.2				13
Wed 05				11.6	80.1			92.4				12
Thu 06				10.9	82.4			91.1				9
Fri 07				9.59	82.6			92.0				8
Sat 08				9.96	69.6			88.2				10
Sun 09				10.2	77.6			83.7				15
Mon 10				10.7	84.7			80.5				6
Tue 11				10.8	83.4			95.0				10
Wed 12				9.16	78.4			83.4				19
Thu 13		1.11		10.4	78.8	68.1		89.0		2.7		29
Fri 14				8.64	78.7			83.3		1.4		25
Sat 15				10.9	77.7			81.3				10
Sun 16				12.0	82.0			81.7				5
Mon 17				11.6	85.7			83.7	2.4			8
Tue 18				11.7	84.8			88.8				15
Wed 19				11.3	85.0			89.0				13
Thu 20		0.679		12.0	73.6	61.0		92.6		0.5		12
Fri 21		0.477		6.93	65.0	39.8		77.5		0.3		190
Sat 22				8.98	69.6			80.2				24
Sun 23		0.481		9.65	73.3	59.8		77.2		1.8		4
Mon 24		1.32		5.73	45.6	46.4		62.1		1.3		8
Tue 25				7.78	75.2			63.0		0.4		14
Wed 26				11.0	80.4			78.5				20
Thu 27				12.0	81.9			84.0		2.5		12
Fri 28		0.293		11.6	81.6			82.7		2.7		20
Sat 29		0.147		11.9	69.0	78.1		77.3		2.6		15
Sun 30				12.5	74.1			73.3				11
Mon 31				12.7	86.2			77.1	2.0			5
Average	---	0.583	---	10.5	77.7	60.7	---	83.0	---	---	---	---
Minimum	---	0.147	---	5.73	45.6	39.8	---	62.1	2.0	0.3	---	4
Maximum	---	1.32	---	13.8	86.2	78.1	---	95.0	2.4	2.7	---	190
GeoMean	---	---	---	---	---	---	---	---	2.2	1.3	---	12
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

* contact Laboratory for information about the quality assurance associated with the results

Enhanced Primary Treatment (EPT) Usage

Total Bypass (hrs)	EPT Usage (hrs)	%	Total Bypass YTD (hrs)	EPT Usage YTD	% Usage YTD
39	39	100%	391	391	100.00%

Report Comments

7/12/2017	Raw: Recommended holding time for BOD was exceed by 141 hours prior to analysis.

AEP Ref #**

** AEP - Alberta Environment & Parks

RAW	Untreated Influent into the plant
INF	Untreated Wastewater from collection system
INFs	Influent, screened at the Headworks Diversion Structure
PE	Primary Effluent from conventional primaries
PE 30	Primary Effluent from conventional primaries discharged via Outfall 30
EPT	Enhanced Primary Treatment
EPE	Enhanced Primary Effluent
EPEPS	Enhanced Primary Effluent and Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient removal).

FEC	Combined pre-UV disinfection (FE+EPEPS)
OUTFALL 10	UV-disinfected, discharged via OUTFALL 10
OUTFALL 20	Combined Bypass (RAW + PE + EPE)
OUTFALL 30	Combined Bypass (INF + INFS + PE30 + EPE)
MPW	Membrane Product Water (Effluent re-use water)
ML	Megalitre (1,000,000 Litre)
MPN	Most Probable Number
NR	No Result
NS	No Sample
INS	Insufficient Sample

Akansheh Bhargava
Senior Manager, Operations

Shane Harnish
Senior Manager, Analytical Operations