PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
September 2017

Digested Sludge: Total Monthly Volume (ML)	65.33

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Non UV Disinfected OUTFALL 20	Non UV Disinfected MPW	UV Disinfected EPEPS	UV Disinfected OUTFALL 10 FEC	UV Disinfected OUTFALL 10 FE
Fri 01	357.55	260.66	0.00	0.00	11.31	0.00	249.35	249.35
Sat 02	361.90	241.91	0.00	0.00	12.60	0.00	229.31	229.31
Sun 03	337.63	239.34	0.00	0.00	11.86	0.00	227.48	227.48
Mon 04	365.82	248.23	0.00	0.00	11.77	0.00	236.46	236.46
Tue 05	365.98	261.79	0.00	0.00	12.00	0.00	249.79	249.79
Wed 06	359.12	260.73	0.00	0.00	12.34	0.00	248.39	248.39
Thu 07	360.11	259.78	0.00	0.00	12.05	0.00	247.73	247.73
Fri 08	341.86	254.36	0.00	0.00	12.28	0.00	242.08	242.08
Sat 09	382.82	253.69	0.00	0.00	11.58	0.00	242.11	242.11
Sun 10	410.31	274.40	0.00	0.00	11.04	0.00	263.36	263.36
Mon 11	357.21	262.30	0.00	0.00	11.10	0.00	251.20	251.20
Tue 12	353.81	258.72	0.00	0.00	11.31	0.00	247.41	247.41
Wed 13	762.85	365.36	77.45	0.00	11.04	0.00	276.87	276.87
Thu 14	579.73	331.09	24.48	0.00	10.81	0.00	295.80	295.80
Fri 15	358.86	267.26	0.00	0.00	11.02	0.00	256.24	256.24
Sat 16	375.03	257.60	0.00	0.00	10.88	0.00	246.72	246.72
Sun 17	369.07	254.31	0.00	0.00	10.89	0.00	243.42	243.42
Mon 18	364.82	262.74	0.00	0.00	10.78	0.00	251.96	251.96
Tue 19	1,008.90	422.36	124.63	0.00	11.26	0.00	286.47	286.47
Wed 20	510.27	318.15	21.47	0.00	10.30	0.00	286.38	286.38
Thu 21	695.01	489.38	182.43	0.00	10.27	0.00	296.68	296.68
Fri 22	460.35	308.31	10.93	0.00	10.63	0.00	286.75	286.75
Sat 23	416.55	270.11	0.00	0.00	10.72	0.00	259.39	259.39
Sun 24	418.05	264.06	0.00	0.00	10.73	0.00	253.33	253.33
Mon 25	400.94	273.17	0.00	0.00	10.76	0.00	262.41	262.41
Tue 26	384.84	262.79	0.00	0.00	10.88	0.00	251.91	251.91
Wed 27	368.70	260.97	0.00	0.00	10.32	0.00	250.65	250.65
Thu 28	358.64	258.86	0.00	0.00	10.52	0.00	248.34	248.34
Fri 29	358.88	254.17	0.00	0.00	10.38	0.00	243.79	243.79
Sat 30	371.22	256.61	0.00	0.00	10.56	0.00	246.05	246.05
Average	430.56	272.68	14.71	0.00	11.13	0.00	255.93	247.67
Minimum	337.63	0.00	0.00	0.00	10.27	0.00	227.48	0.00
Maximum	1,008.90	489.38	182.43	0.00	12.60	0.00	296.68	296.68
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	8,453	441	0	334	0	7,678	7,678

Liquid Stream Quality

DATE	pH@25°C RAW	pH OUTFALL 30	pH OUTFALL 20	pH OUTFALL 10 FEC	TSS RAW	TSS OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Fri 01	7.5			7.6	308				5.2	5.2
Sat 02	7.6			7.7	272				4.6	4.6
Sun 03	7.7			7.5	282				4.6	4.6
Mon 04	7.5			7.6	289				4.9	4.9
Tue 05	7.6			7.5	276				6.5	6.5
Wed 06	7.6			7.5	452				4.3	4.3
Thu 07	7.6			7.6	308				4.9	4.9
Fri 08	7.6			7.6	320				4.5	4.5
Sat 09	7.5			7.6	284				3.9	3.9
Sun 10	7.7			7.6	289				5.9	5.9
Mon 11	7.5			7.5	344				7.2	7.2
Tue 12	7.6			7.4	286				5.4	5.4
Wed 13	7.5	7.5		7.5	276	27			8.7	8.7
Thu 14	7.5	7.6		7.3	380	35			5.9	5.9
Fri 15	7.7			7.5	286				6.8	6.8
Sat 16	7.6			7.5	300				5.2	5.2
Sun 17	7.6			7.6	277				6.5	6.5
Mon 18	7.6			7.5	304				9.0	9.0
Tue 19	7.5	7.6		7.6	336	62			13.2	13.2
Wed 20	7.6	7.5		7.4	322	53			7.7	7.7
Thu 21	7.5	7.6		7.4	272	36			7.8	7.8
Fri 22	7.5	7.6		7.4	218	19			6.9	6.9
Sat 23	7.6			7.6	226				6.6	6.6
Sun 24	7.6			7.5	251				7.1	7.1
Mon 25	7.6			7.5	352				9.4	9.4
Tue 26	7.5			7.6	310				6.2	6.2
Wed 27	7.7			7.5	291				5.5	5.5
Thu 28	7.6			7.6	308				6.4	6.4
Fri 29	7.5			7.5	300				5.6	5.6
Sat 30	7.7			7.5	306				6.2	6.2
Average	7.6	7.6	---	7.5	301	39	---	---	6.4	6.4
Minimum	7.5	7.5	---	7.3	218	19	---	---	3.9	3.9
Maximum	7.7	7.6	---	7.7	452	62	---	---	13.2	13.2
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	$BOD_5/cBOD_5$ RAW BOD_5	BOD_5 OUTFALL 30 BOD_5	BOD_5 OUTFALL 20 BOD_5	BOD_5 EPEPS BOD_5	BOD_5 OUTFALL 10 FEC $cBOD_5$	BOD_5 OUTFALL 10 FE $cBOD_5$	TP RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Fri 01	295				3	3	6.46				0.14	0.14
Sat 02	275				3	3	6.46				0.19	0.19
Sun 03	290				2	2	6.36				0.19	0.19
Mon 04	316				3	3	7.50				0.27	0.27
Tue 05	284				3	3	7.42				0.29	0.29
Wed 06	306				2	2	8.68				0.25	0.25
Thu 07	342				2	2	8.31				0.26	0.26
Fri 08	356				2	2	8.48				0.24	0.24
Sat 09	376				3	3	8.48				0.25	0.25
Sun 10	310				4	4	7.77				0.30	0.30
Mon 11	322				3	3	8.06				0.32	0.32
Tue 12	301				3	3	8.05				0.32	0.32
Wed 13	245	77			4	4	6.46	3.13			0.52	0.52
Thu 14	271	111			3	3	9.30	3.92			0.53	0.53
Fri 15	309				4	4	7.53				0.32	0.32
Sat 16	295				4	4	8.32				0.33	0.33
Sun 17	312				4	4	7.54				0.36	0.36
Mon 18	281				4	4	8.55				0.39	0.39
Tue 19	209	86			4	4	4.98	2.24			0.45	0.45
Wed 20	408	125			4	4	6.22	3.37			0.32	0.32
Thu 21	150	54			4	4	4.02	1.35			0.32	0.32
Fri 22	223	77			3	3	5.96	1.44			0.35	0.35
Sat 23	275				< 2	< 2	6.57				0.45	0.45
Sun 24	267				4	4	7.40				0.34	0.34
Mon 25	247				4	4	7.26				0.36	0.36
Tue 26	266				3	3	8.13				0.33	0.33
Wed 27	340				3	3	8.70				0.33	0.33
Thu 28	283				3	3	9.24				0.32	0.32
Fri 29	314				3	3	8.96				0.57	0.57
Sat 30	323				3	3	8.88				0.60	0.60
Average	293	88	---	---	3.2	3.2	7.54	2.58	---	---	0.34	0.34
Minimum	150	54	---	---	< 2.0	< 2.0	4.02	1.35	---	---	0.14	0.14
Maximum	408	125	---	---	4.0	4.0	9.30	3.92	---	---	0.60	0.60
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	TKN RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	NO_2+NO_3 RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 20	NO_2+NO_3 OUTFALL 10 FEC	Chloride RAW	Chloride OUTFALL 30	Chloride OUTFALL 20	Chloride OUTFALL 10 FEC	*E. coli* RAW X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Fri 01	40.9				0.125	0.125	64.1			1.68				14.8	88.4			86.5				3
Sat 02	41.3				0.117	0.117	60.6			1.97				10.4	79.7			86.0				4
Sun 03	33.5				0.139	0.139	59.4			1.75				14.3	77.6			82.7				80
Mon 04	42.0				0.388	0.388	59.1			2.07				14.0	76.0			77.4				4
Tue 05	40.9				0.290	0.290	54.5			1.95				13.8	85.9			76.1				8
Wed 06	37.3				0.117	0.117	65.2			1.61	< 0.01			12.3	82.5			85.1				5
Thu 07	41.2				0.169	0.169	62.5			1.69				13.1	82.2			90.0				3
Fri 08	41.7				0.221	0.221	63.2			1.69				13.2	81.7			83.8				6
Sat 09	41.2				0.423	0.423	64.4			2.02				13.5	76.8			82.8				4
Sun 10	40.3				1.08	1.08	60.2			2.94				12.8	75.7			81.0				23
Mon 11	37.6				1.04	1.040	61.0			2.92				11.1	69.5			74.7				22
Tue 12	41.6				0.419	0.419	59.7			2.09				12.2	77.7			79.1				10
Wed 13	33.9	33.7			0.493	0.493	48.0	39.8		2.27	< 0.01	0.17		11.3	71.2	59.4		75.9		2.0		11
Thu 14	40.1	39.1			0.228	0.228	66.7	44.9		1.97		0.42		10.2	68.8	67.9		66.8		1.4		45
Fri 15	43.0				0.858	0.858	57.3			2.68				10.2	80.5			76.2				15
Sat 16	46.5				1.31	1.31	62.9			3.05				14.3	76.8			79.3				35
Sun 17	47.5				1.66	1.66	60.0			3.36				14.6	75.3			78.6				8
Mon 18	46.0				1.26	1.26	67.9			3.09				13.3	89.0			78.8				9
Tue 19	27.1	25.8			0.335	0.335	38.7	29.6		2.19		0.25		9.52	50.9	46.0		75.3	2.3	1.2		22
Wed 20	42.1	38.7			1.09	1.09	53.0	45.0		2.54	0.03	0.02		9.90	75.6	72.1		63.4		2.1		9
Thu 21	21.8	26.2			0.288	0.288	32.4	30.5		1.80		0.44		6.67	56.0	48.3		63.0		0.6		3
Fri 22	37.7	30.1			0.457	0.457	51.0	35.2		1.88		0.95		9.68	69.2	58.7		57.3		0.3		11
Sat 23	43.2				0.532	0.532	54.8			2.32				12.9	72.8			72.9				10
Sun 24	41.5				0.998	0.998	60.8			3.07				14.2	74.8			74.1				12
Mon 25	42.2				0.675	0.675	58.4			2.53				13.9	81.7			76.9				13
Tue 26	38.1				0.281	0.281	60.0			2.04				13.1	76.1			81.2				6
Wed 27	35.6				0.232	0.232	61.3			1.82	< 0.01			13.5	78.1			79.6				8
Thu 28	42.2				0.140	0.140	62.1			1.73				12.4	74.8			80.3	3.3			5
Fri 29	41.4				0.348	0.348	60.1			2.09				13.8	74.2			78.6				11
Sat 30	42.5				0.511	0.511	59.0			1.94				13.8	70.6			76.0				10
Average	39.7	32.3	---	---	0.541	0.541	58.3	37.5	---	2.23	0.02	0.38	---	12.4	75.7	58.7	---	77.3	---	---	---	---
Minimum	21.8	25.8	---	---	0.117	0.117	32.4	29.6	---	1.61	0.01	0.02	---	6.67	50.9	46.0	---	57.3	2.3	0.3	---	3
Maximum	47.5	39.1	---	---	1.66	1.66	67.9	45.0	---	3.36	0.03	0.95	---	14.8	89.0	72.1	---	90.0	3.3	2.1	---	80
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.8	1.1	---	10
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
52	52	100%	476	476	100.00%

Report Comments

1	Outfall 10 - September 08: Recommended holding time for analyte was exceeded prior to analysis by 96 hours.

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

Abhishek Bhargava
Senior Manager, Operations

Shane Harnish
Senior Manager, Analytical Operations