PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
March 2018

Digested Sludge: Total Monthly Volume (ML)	70.54

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
Thu 01	297.75	241.46	0.00	0.00	10.58	0.00	230.88	230.88
Fri 02	362.99	240.61	0.00	0.00	10.73	0.00	229.88	229.88
Sat 03	374.12	235.17	0.00	0.00	10.66	0.00	224.51	224.51
Sun 04	362.94	241.01	0.00	0.00	10.21	0.00	230.80	230.80
Mon 05	329.20	246.12	0.00	0.00	9.15	0.00	236.97	236.97
Tue 06	320.27	243.73	0.00	0.00	9.88	0.00	233.85	233.85
Wed 07	321.25	243.56	0.00	0.00	10.13	0.00	233.43	233.43
Thu 08	376.31	243.55	0.00	0.00	10.40	0.00	233.15	233.15
Fri 09	387.74	242.35	0.00	0.00	10.51	0.00	231.84	231.84
Sat 10	471.10	273.39	14.96	0.00	10.45	0.00	247.98	247.98
Sun 11	494.39	275.81	30.08	0.00	10.74	0.00	234.99	234.99
Mon 12	474.40	293.03	27.91	0.00	11.66	0.00	253.46	253.46
Tue 13	465.04	286.09	20.83	0.00	12.16	0.00	253.10	253.10
Wed 14	447.23	290.22	20.50	0.00	11.34	0.00	258.38	258.38
Thu 15	403.72	265.87	4.38	0.00	10.29	0.00	251.20	251.20
Fri 16	454.65	278.71	7.35	0.00	10.46	0.00	260.90	260.90
Sat 17	424.65	269.95	3.43	0.00	10.46	0.00	256.06	256.06
Sun 18	436.47	277.53	12.80	0.00	10.10	0.00	254.63	254.63
Mon 19	400.56	269.63	3.83	0.00	8.08	0.00	257.72	257.72
Tue 20	686.21	341.52	54.73	0.00	7.40	0.00	279.39	279.39
Wed 21	552.54	337.38	46.52	0.00	9.96	0.00	280.90	280.90
Thu 22	467.85	290.80	10.02	0.00	11.21	0.00	269.57	269.57
Fri 23	757.48	345.53	63.59	0.00	9.60	0.00	272.34	272.34
Sat 24	540.77	305.77	19.59	0.00	9.17	0.00	277.01	277.01
Sun 25	490.37	294.90	13.35	0.00	9.00	0.00	272.55	272.55
Mon 26	512.67	306.52	17.67	0.00	10.09	0.00	278.76	278.76
Tue 27	371.92	277.85	0.00	0.00	10.93	0.00	266.92	266.92
Wed 28	396.20	269.25	0.00	0.00	11.61	0.00	257.64	257.64
Thu 29	343.61	251.74	0.00	0.00	10.81	0.00	240.93	240.93
Fri 30	330.95	238.37	0.00	0.00	9.76	0.00	228.61	228.61
Sat 31	312.36	238.98	0.00	0.00	10.45	0.00	228.53	228.53
Average	431.22	272.79	11.99	0.00	10.26	0.00	250.54	250.54
Minimum	297.75	235.17	0.00	0.00	7.40	0.00	224.51	224.51
Maximum	757.48	345.53	63.59	0.00	12.16	0.00	280.90	280.90
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	8,456	372	0	318	0	7,767	7,767

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
Thu 01	7.5			7.4	300				6.2	6.2
Fri 02	7.5			7.5	356				5.1	5.1
Sat 03	7.6			7.5	302				7.6	7.6
Sun 04	7.4			7.4	343				8.1	8.1
Mon 05	7.6			7.3	340				10.9	10.9
Tue 06	7.5			7.3	360				7.0	7.0
Wed 07	7.5			7.4	356				7.2	7.2
Thu 08	7.6			7.4	380				5.1	5.1
Fri 09	7.6			7.4	272				10.1	10.1
Sat 10	7.6	7.4		7.5	400	73			9.6	9.6
Sun 11	7.6	7.4		7.4	380	101			6.2	6.2
Mon 12	7.5	7.4		7.4	372	44			10.7	10.7
Tue 13	7.8	7.7		7.5	400	85			21.7	21.7
Wed 14	7.6	7.7		7.3	356	58			61.3	61.3
Thu 15	7.6	7.7		7.3	292	59			7.2	7.2
Fri 16	7.6	7.8		7.3	320	108			7.3	7.3
Sat 17	7.5	7.6		7.4	348	105			5.2	5.2
Sun 18	7.6	7.6		7.3	416	101			4.6	4.6
Mon 19	7.5	7.5		7.3	294	75			6.8	6.8
Tue 20	7.5	7.5		7.4	536	88			8.1	8.1
Wed 21	7.5	7.6		7.3	484	54			5.1	5.1
Thu 22	7.5	7.4		7.4	329	55			5.8	5.8
Fri 23	7.3	7.3		7.3	472	98			5.1	5.1
Sat 24	7.6	7.6		7.2	340	36			6.0	6.0
Sun 25	7.6	7.4		7.3	309	60			5.3	5.3
Mon 26	7.5	7.5		7.4	314	78			5.0	5.0
Tue 27	7.6			7.4	352				4.2	4.2
Wed 28	7.5			7.3	404				5.7	5.7
Thu 29	7.5			7.4	296				6.2	6.2
Fri 30	7.5			7.3	300				6.0	6.0
Sat 31	7.6			7.3	284				5.3	5.3
Average	7.5	7.5	---	7.4	355	75	---	---	8.9	8.9
Minimum	7.3	7.3	---	7.2	272	36	---	---	4.2	4.2
Maximum	7.8	7.8	---	7.5	536	108	---	---	61.3	61.3
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
Thu 01	236				3	3	7.18				0.34	0.34
Fri 02	384				3	3	7.55				0.37	0.37
Sat 03	295				3	3	7.04				0.51	0.51
Sun 04	344				3	3	6.92				0.61	0.61
Mon 05	287				5	5	7.56				0.42	0.42
Tue 06	328				4	4	7.90				0.33	0.33
Wed 07	356				4	4	8.32				0.32	0.32
Thu 08	277				4	4	7.94				0.33	0.33
Fri 09	325				4	4	8.18				0.37	0.37
Sat 10	364	131			6	6	7.63	3.06			0.38	0.38
Sun 11	296	128			5	5	6.27	4.21			0.35	0.35
Mon 12	291	142			6	6	6.34	2.60			0.31	0.31
Tue 13	328	127			8	8	7.06	3.00			0.73	0.73
Wed 14	287	134			13	13	6.63	3.92			1.84	1.84
Thu 15	202	122			5	5	7.13	3.50			0.30	0.30
Fri 16	316	162			5	5	7.14	4.96			0.31	0.31
Sat 17	347	223			5	5	7.56	4.66			0.27	0.27
Sun 18	434	191			6	6	7.41	4.80			0.26	0.26
Mon 19	310	215			4	4	6.84	3.72			0.27	0.27
Tue 20	242	113			4	4	5.77	3.34			0.27	0.27
Wed 21	288	141			3	3	6.32	2.34			0.22	0.22
Thu 22	382	131			3	3	6.26	3.08			0.21	0.21
Fri 23	260	102			3	3	5.73	2.69			0.22	0.22
Sat 24	230	103			4	4	5.72	2.71			0.20	0.20
Sun 25	275	170			3	3	5.61	3.24			0.17	0.17
Mon 26	230	125			4	4	5.69	3.34			0.18	0.18
Tue 27	239				4	4	5.73				0.16	0.16
Wed 28	350				4	4	7.21				0.21	0.21
Thu 29	245				4	4	6.35				0.22	0.22
Fri 30	296				4	4	6.38				0.21	0.21
Sat 31	334				4	4	6.06				0.22	0.22
Average	303	145	---	---	4.5	4.5	6.82	3.48	---	---	0.36	0.36
Minimum	202	102	---	---	3.0	3.0	5.61	2.34	---	---	0.16	0.16
Maximum	434	223	---	---	13.0	13.0	8.32	4.96	---	---	1.84	1.84
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	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 X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Thu 01	34.7				2.64	2.64	54.5			4.60				11.8	144			192				10
Fri 02	36.5				3.96	3.96	57.5			5.66				12.3	98.2			139				9
Sat 03	37.3				4.82	4.82	54.7			6.40				12.4	108			110				11
Sun 04	35.2				4.68	4.68	54.6			6.05				11.3	173			128				14
Mon 05	32.0				3.58	3.58	57.6			5.47				12.3	132			150				8
Tue 06	37.7				2.31	2.31	64.5			4.05				12.0	130			146				8
Wed 07	34.4				3.38	3.38	66.7			5.64	< 0.01			11.7	127			141				8
Thu 08	38.4				6.38	6.38	62.9			8.22				13.4	113			134				6
Fri 09	41.8				6.96	6.96	61.9			7.98				12.7	111			125				12
Sat 10	40.0	34.5			7.62	7.62	57.4	42.9		8.52		0.09		12.9	258	468		126		2.9		6
Sun 11	34.2	35.7			5.80	5.80	50.5	45.2		7.39		0.10		12.7	272	354		234		1.9		6
Mon 12	36.4	39.0			4.62	4.62	49.4	42.9		5.60		0.50		11.7	230	313		250		1.6		2
Tue 13	33.9	30.9			4.37	4.37	54.3	39.9		11.3		1.93		12.5	208	343		270		1.3		3
Wed 14	36.5	39.2			5.42	5.42	52.8	48.2		11.3	< 0.01	0.42		9.02	208	267		217		1.6		6
Thu 15	43.3	36.5			4.97	4.97	57.2	43.1		6.34		0.07		12.5	129	233		192		2.9		6
Fri 16	42.2	40.6			5.64	5.64	55.6	50.2		6.93		2.08		13.3	188	278		158		1.5		5
Sat 17	36.6	36.9			4.97	4.97	60.8	46.6		6.57		1.42		11.7	219	362		195				10
Sun 18	39.0	37.9			4.90	4.90	59.7	48.0		6.66		2.49		12.7	555	733		277		2.5		7
Mon 19	40.9	40.1			2.53	2.53	56.1	42.8		5.63		1.32		11.1	170	451		436				7
Tue 20	34.4	32.7			2.06	2.06	45.9	38.9		5.17		2.20		12.1	229	284		214		1.3		5
Wed 21	33.0	30.7			1.24	1.24	51.0	35.4		4.86	< 0.01	1.78		12.6	221	241		213		1.5		9
Thu 22	34.6	33.4			3.40	3.40	53.6	39.8		4.95		1.82		10.1	168	245		202		1.7		11
Fri 23	28.9	27.7			4.77	4.77	48.0	36.2		6.31		1.78		11.1	427	405		243		1.1		5
Sat 24	35.8	26.3			2.98	2.98	50.0	36.8		4.45		0.26		11.7	163	193		303		0.9		4
Sun 25	35.3	32.6			4.62	4.62	53.1	40.8		6.11		0.21		12.0	136	149		197		2.3		5
Mon 26	32.6	30.8			4.35	4.35	50.1	42.4		5.92		0.22		12.5	130	141		133		3.4		1,500
Tue 27	34.8				3.10	3.10	52.3			4.76				12.5	228			139	1.4			12
Wed 28	39.0				4.10	4.10	59.5			5.45	0.04			13.0	136			232				8
Thu 29	39.8				3.60	3.60	54.8			5.94				14.1	88			159				10
Fri 30	41.1				3.21	3.21	55.1			4.74				15.9	239			140				4
Sat 31	41.5				3.26	3.26	53.6			4.70				16.1	134			235				2
Average	36.8	34.4	---	---	4.20	4.20	55.3	42.4	---	6.25	0.01	1.10	---	12.4	189	321	---	195	---	---	---	---
Minimum	28.9	26.3	---	---	1.24	1.24	45.9	35.4	---	4.05	< 0.01	0.07	---	9.02	88.2	141	---	110	1.4	0.9	---	2
Maximum	43.3	40.6	---	---	7.62	7.62	66.7	50.2	---	11.3	0.04	2.49	---	16.1	555	733	---	436	1.4	3.4	---	1500
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.4	1.8	---	8
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)		Total Bypass YTD (hrs)	EPT Usage YTD	% Usage YTD
50	50	100	50	50	100.00%

Report Comments

1.	OUTFALL 10 - March 26, 2018: Analysis of this sample was repeated and exceeded the recommended holding time for *E. coli* .
2.	RAW - March 01, 2018: Analysis of this sample was repeated and exceeded the recommended holding time for BOD.

AEP Ref #**

** AEP - Alberta Environment & Parks

RAW	Untreated Influent into the plant	FEC	Combined pre-UV disinfection (FE+EPEPS)
INF	Untreated Wastewater from collection system	OUTFALL 10	UV-disinfected, discharged via OUTFALL 10
INFs	Influent, screened at the Headworks Diversion Structure	OUTFALL 20	Combined Bypass (RAW + PE + EPE)
PE	Primary Effluent from conventional primaries	OUTFALL 30	Combined Bypass (INF + INFS + PE30 + EPE)
PE 30	Primary Effluent from conventional primaries discharged via Outfall 30	MPW	Membrane Product Water (Effluent re-use water)
EPT	Enhanced Primary Treatment	ML	Megalitre (1,000,000 Litre)
EPE	Enhanced Primary Effluent	MPN	Most Probable Number
EPEP	Enhanced Primary Effluent and Pump Station	NR	No Result
FE	Final Effluent from secondary treatment process (with biological nutrient removal). Pre-Ultraviolet disinfection	NS	No Sample
		INS	Insufficient Sample

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