PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
February 2020

Digested Sludge: Total Monthly Volume (ML)	68.9

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent INFs	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
Sat-01	447.8	0.0	263.0	5.6	0.0	10.3	0.0	247.1	247.1
Sun-02	371.7	0.0	250.9	0.0	0.0	10.1	0.0	240.8	240.8
Mon-03	338.5	0.0	250.1	0.0	0.0	9.8	0.0	240.3	240.3
Tue-04	334.0	0.0	246.0	0.0	0.0	9.3	0.0	236.7	236.7
Wed-05	353.0	0.0	245.9	0.0	0.0	10.2	0.0	235.7	235.7
Thu-06	360.3	0.0	263.2	0.0	0.0	9.3	0.0	253.9	253.9
Fri-07	343.3	0.0	254.2	0.0	0.0	8.7	0.0	245.5	245.5
Sat-08	354.8	0.0	246.1	0.0	0.0	9.7	0.0	236.4	236.4
Sun-09	359.5	0.0	247.2	0.0	0.0	10.8	0.0	236.4	236.4
Mon-10	340.2	0.0	253.3	0.0	0.0	9.9	0.0	243.4	243.4
Tue-11	334.4	0.0	251.1	0.0	0.0	10.2	0.0	240.9	240.9
Wed-12	340.1	0.0	249.0	0.0	0.0	9.7	0.0	239.3	239.3
Thu-13	342.4	0.0	254.2	0.0	0.0	9.0	0.0	245.2	245.2
Fri-14	351.0	0.0	252.2	0.0	0.0	9.8	0.0	242.4	242.4
Sat-15	347.0	0.0	243.2	0.0	0.0	10.4	0.0	232.8	232.8
Sun-16	341.2	0.0	238.2	0.0	0.0	9.2	0.0	229.0	229.0
Mon-17	349.9	0.0	242.0	0.0	0.0	9.9	0.0	232.1	232.1
Tue-18	335.3	0.0	249.1	0.0	0.0	10.6	0.0	238.5	238.5
Wed-19	335.1	0.0	249.6	0.0	0.0	9.7	0.0	239.9	239.9
Thu-20	332.4	0.0	250.1	0.0	0.0	10.4	0.0	239.7	239.7
Fri-21	350.9	0.0	256.9	0.0	0.0	9.1	0.0	247.8	247.8
Sat-22	361.7	0.0	251.1	0.0	0.0	9.6	0.0	241.5	241.5
Sun-23	360.6	0.0	249.6	0.0	0.0	9.5	0.0	240.1	240.1
Mon-24	346.3	0.0	254.1	0.0	0.0	9.2	0.0	244.9	244.9
Tue-25	345.1	0.0	247.1	0.0	0.0	10.2	0.0	236.9	236.9
Wed-26	339.4	0.0	249.5	0.0	0.0	10.1	0.0	239.4	239.4
Thu-27	431.6	0.0	271.4	9.5	0.0	9.2	0.0	252.7	252.7
Fri-28	475.3	0.0	286.8	21.7	0.0	9.1	0.0	256.0	256.0
Sat-29	655.4	0.0	263.6	0.0	0.0	10.6	0.0	253.0	253.0
Average	368.2	0.0	252.7	1.3	0.0	9.8	0.0	241.7	241.7
Minimum	332.4	0.0	238.2	0.0	0.0	8.7	0.0	229.0	229.0
Maximum	655.4	0.0	286.8	21.7	0.0	10.8	0.0	256.0	256.0
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	7,329	37	0	284	0	7,008	7,008

Liquid Stream Quality

DATE	pH@25°C RAW	pH OUTFALL 30	pH OUTFALL 20	pH 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	7.6		7.7	244	108			3.2	3.2
Sun-02	7.5			7.7	540				3.3	3.3
Mon-03	7.5			7.8	376				4.0	4.0
Tue-04	7.5			7.7	316				3.0	3.0
Wed-05	7.4			7.7	312				3.1	3.1
Thu-06	7.6			7.8	356				9.6	9.6
Fri-07	7.6			7.7	340				3.8	3.8
Sat-08	7.6			7.7	472				3.4	3.4
Sun-09	7.6			7.9	312				4.1	4.1
Mon-10	7.6			7.7	363				4.7	4.7
Tue-11	7.4			7.7	376				5.7	5.7
Wed-12	7.6			7.7	244				5.4	5.4
Thu-13	7.8			7.7	328				4.9	4.9
Fri-14	7.6			7.7	332				3.4	3.4
Sat-15	7.6			7.7	344				3.6	3.6
Sun-16	7.7			7.8	272				3.6	3.6
Mon-17	7.5			7.6	280				5.2	5.2
Tue-18	7.6			7.8	348				5.0	5.0
Wed-19	7.6			7.8	312				3.7	3.7
Thu-20	7.6			7.7	316				3.5	3.5
Fri-21	7.6			7.6	340				4.6	4.6
Sat-22	7.6			7.7	324				3.9	3.9
Sun-23	7.5			7.7	310				4.9	4.9
Mon-24	7.5			7.7	332				5.2	5.2
Tue-25	7.7			7.7	288				4.0	4.0
Wed-26	7.6			7.8	286				3.5	3.5
Thu-27	7.5	7.4		7.7	396	144			4.3	4.3
Fri-28	7.5	7.5		7.7	344	103			4.2	4.2
Sat-29	7.6			7.6	316				15.4	15.4
Average	7.6	7.5	---	7.7	335	118	---	---	4.7	4.7
Minimum	7.4	7.4	---	7.6	244	103	---	---	3.0	3.0
Maximum	7.8	7.6	---	7.9	540	144	---	---	15.4	15.4
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	214	145			2.0	2.0	6.50	7.12			0.29	0.29
Sun-02	385				2.0	2.0	8.84				0.24	0.24
Mon-03	324				2.0	2.0	7.60				0.25	0.25
Tue-04	337				3.0	3.0	7.33				0.24	0.24
Wed-05	336				1.0	1.0	7.53				0.25	0.25
Thu-06	293				3.0	3.0	7.50				0.33	0.33
Fri-07	336				3.0	3.0	7.64				0.28	0.28
Sat-08	334				2.0	2.0	8.59				0.26	0.26
Sun-09	318				3.0	3.0	7.53				0.26	0.26
Mon-10	321				3.0	3.0	7.35				0.27	0.27
Tue-11	318				3.0	3.0	8.74				0.39	0.39
Wed-12	307				3.0	3.0	7.50				0.39	0.39
Thu-13	259				2.0	2.0	8.05				0.34	0.34
Fri-14	337				3.0	3.0	7.72				0.27	0.27
Sat-15	322				2.0	2.0	8.31				0.27	0.27
Sun-16	322				2.0	2.0	8.29				0.24	0.24
Mon-17	312				3.0	3.0	7.41				0.30	0.30
Tue-18	301				2.0	2.0	3.42				0.27	0.27
Wed-19	316				5.0	5.0	7.17				0.26	0.26
Thu-20	330				3.0	3.0	7.48				0.27	0.27
Fri-21	303				2.0	2.0	7.54				0.29	0.29
Sat-22	332				3.0	3.0	7.40				0.28	0.28
Sun-23	318				3.0	3.0	7.32				0.29	0.29
Mon-24	342				3.0	3.0	7.30				0.29	0.29
Tue-25	312				3.0	3.0	7.43				0.28	0.28
Wed-26	295				2.0	2.0	7.40				0.28	0.28
Thu-27	306	194			3.0	3.0	7.63	5.00			0.29	0.29
Fri-28	333	151			3.0	3.0	7.12	4.77			0.30	0.30
Sat-29	307				4.0	4.0	7.26				0.62	0.62
Average	316	163	---	---	2.7	2.7	7.48	5.63	---	---	0.30	0.30
Minimum	214	145	---	---	1.0	1.0	3.42	4.77	---	---	0.24	0.24
Maximum	385	194	---	---	5.0	5.0	8.84	7.12	---	---	0.62	0.62
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	33.4	42.5			3.22	3.22	54.8	62.7		6.80
Sun-02	37.6				4.42	4.42	69.1			6.62
Mon-03	40.2				4.85	4.85	63.8			6.38
Tue-04	41.2				3.73	3.73	63.1			6.19
Wed-05	38.6				3.72	3.72	57.9			5.41
Thu-06	38.9				4.87	4.87	61.2			7.09
Fri-07	36.8				4.84	4.84	62.3			7.15
Sat-08	37.6				3.80	3.80	71.3			6.63
Sun-09	38.8				4.44	4.44	66.5			6.93
Mon-10	41.2				5.14	5.14	58.0			7.25
Tue-11	45.8				5.96	5.96	73.3			8.77
Wed-12	40.8				5.94	5.94	61.0			8.19
Thu-13	39.8				6.16	6.16	66.1			8.62
Fri-14	39.6				5.58	5.58	64.5			7.54
Sat-15	33.0				5.25	5.25	63.9			6.91
Sun-16	31.4				5.28	5.28	70.6			7.31
Mon-17	36.0				4.68	4.68	62.3			7.46
Tue-18	36.0				5.33	5.33	27.3			7.17
Wed-19	34.8				3.16	3.16	57.0			5.56
Thu-20	38.7				3.61	3.61	60.0			6.03
Fri-21	39.6				4.52	4.52	59.9			6.64
Sat-22	37.1				3.96	3.96	63.5			6.02
Sun-23	37.2				4.05	4.05	61.7			6.25
Mon-24	32.1				3.24	3.24	59.9			6.33
Tue-25	37.6				3.42	3.42	59.4			5.67
Wed-26	36.0				2.88	2.88	60.9			4.64
Thu-27	38.4	38.1			3.38	3.38	57.5	50.8		5.18
Fri-28	30.1	30.3			2.80	2.80	55.9	46.8		5.36
Sat-29	31.4				3.25	3.25	59.4			6.28
Average	37.2	37.0	---	---	4.33	4.33	61.1	53.4	---	6.63
Minimum	30.1	30.3	---	---	2.80	2.80	27.3	46.8	---	4.64
Maximum	45.8	42.5	---	---	6.16	6.16	73.3	62.7	---	8.77
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 X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Sat-01		0.25		7.11	245	412		167		3		8
Sun-02				6.66	103			210				6
Mon-03				5.93	97			127				6
Tue-04				6.53	103			107				23
Wed-05	0.09			6.73	183			119				2
Thu-06				6.31	470			265				7
Fri-07				5.77	153			337				5
Sat-08				6.90	101			187				5
Sun-09				6.76	78			118				4
Mon-10				6.41	97			95				4
Tue-11				5.56	272			116				5
Wed-12	< 0.01			5.74	118			167				13
Thu-13				5.72	117			128	2			13
Fri-14				6.08	143			130				10
Sat-15				6.00	109			145				4
Sun-16				6.40	95			111				5
Mon-17				6.51	98			102				6
Tue-18				6.12	102			102				2
Wed-19	< 0.01			5.46	110			103	2			4
Thu-20				5.26	142			124				4
Fri-21				6.54	215			150				4
Sat-22				6.81	170			205				3
Sun-23				6.88	107			174				4
Mon-24				6.37	123			122				6
Tue-25				6.61	113			123				6
Wed-26	< 0.01			5.87	133			114				4
Thu-27		0.94		5.96	256	455		156		3		3
Fri-28		0.83		6.62	250	409		233		2		7
Sat-29				5.39	219			239				11
Average	0.09	0.67	---	6.24	156	425	---	154	---	---	---	---
Minimum	< 0.01	0.25	---	5.26	77.9	409	---	95	2	2	---	2
Maximum	0.09	0.94	---	7.11	470	455	---	337	2	3	---	23
GeoMean	---	---	---	---	---	---	---	---	2	2	---	5
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

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

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hr)	EPT Usage (hr)	% Usage	Total Bypass YTD (hr)	EPT Usage YTD (hr)	% Usage YTD
16	16	100%	0%	0	100%

Report Comments

AEP Ref #

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 Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient removal). Pre-Ultraviolet disinfection.
FEC	Combined post-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
AEP	Alberta Environment & Parks

for **Alfredo Suarez**

Senior Manager, Operations

Shane Harnish

Senior Manager, Analytical Operations