PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
June 2020

Digested Sludge: Total Monthly Volume (ML)	65.9

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
Mon-01	1,580.0	4.0	455.5	104.2	0.0	9.7	0.0	341.6	341.6
Tue-02	399.9	0.0	307.4	0.0	0.0	9.6	0.0	297.8	297.8
Wed-03	399.1	0.0	309.5	0.0	0.0	9.6	0.0	299.9	299.9
Thu-04	361.9	0.0	294.8	0.0	0.0	9.5	0.0	285.3	285.3
Fri-05	355.9	0.0	289.5	0.0	0.0	9.6	0.0	279.9	279.9
Sat-06	1,440.4	0.1	460.0	142.9	0.0	8.8	0.0	308.3	308.3
Sun-07	1,606.6	14.9	932.4	573.2	0.0	9.3	0.0	349.9	349.9
Mon-08	770.4	0.0	468.5	108.5	0.0	9.9	0.0	350.1	350.1
Tue-09	485.8	0.0	365.4	7.5	0.0	10.1	0.0	347.8	347.8
Wed-10	433.5	0.0	349.0	0.0	0.0	10.1	0.0	338.9	338.9
Thu-11	392.7	0.0	322.6	0.0	0.0	10.3	0.0	312.3	312.3
Fri-12	390.0	0.0	313.3	0.0	0.0	11.5	0.0	301.8	301.8
Sat-13	428.8	0.0	321.0	0.0	0.0	11.5	0.0	309.5	309.5
Sun-14	1,593.5	3.1	556.3	223.7	0.0	11.3	0.0	321.3	321.3
Mon-15	1,302.8	0.0	554.4	216.1	0.0	11.0	0.0	327.3	327.3
Tue-16	487.0	0.0	367.5	35.1	0.0	10.9	0.0	321.5	321.5
Wed-17	464.1	0.0	350.5	29.9	0.0	10.9	0.0	309.7	309.7
Thu-18	403.4	0.0	333.1	2.1	0.0	10.6	0.0	320.4	320.4
Fri-19	399.9	0.0	327.9	0.0	0.0	10.2	0.0	317.7	317.7
Sat-20	383.9	0.0	309.0	0.0	0.0	10.8	0.0	298.2	298.2
Sun-21	382.6	0.0	298.4	0.0	0.0	10.8	0.0	287.6	287.6
Mon-22	366.7	0.0	303.0	0.0	0.0	10.9	0.0	292.1	292.1
Tue-23	605.1	0.0	322.7	20.4	0.0	10.6	0.0	291.7	291.7
Wed-24	763.2	0.0	385.3	54.1	0.0	10.4	0.0	320.8	320.8
Thu-25	362.6	0.0	298.4	0.0	0.0	10.4	0.0	288.0	288.0
Fri-26	356.3	0.0	292.1	0.0	0.0	10.4	0.0	281.7	281.7
Sat-27	546.0	0.0	339.0	14.6	0.0	10.4	0.0	314.0	314.0
Sun-28	497.5	0.0	294.7	11.7	0.0	10.4	0.0	272.6	272.6
Mon-29	409.2	0.0	325.0	0.0	0.0	10.5	0.0	314.5	314.5
Tue-30	1,454.6	0.0	669.6	350.6	0.0	10.5	0.0	308.5	308.5
Average	660.8	0.7	383.9	63.2	0.0	10.4	0.0	310.4	310.4
Minimum	355.9	0.0	289.5	0.0	0.0	8.8	0.0	272.6	272.6
Maximum	1,606.6	14.9	932.4	573.2	0.0	11.5	0.0	350.1	350.1
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	22	11,516	1,895	0	311	0	9,311	9,311

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
Mon-01	7.5	7.4		7.5	224	32			4.1	4.1
Tue-02	7.7			7.6	248				4.6	4.6
Wed-03	7.7			7.6	396				4.6	4.6
Thu-04	7.5			7.7	118				4.4	4.4
Fri-05	7.6			7.7	292				5.3	5.3
Sat-06	7.5	7.6		7.7	60	51			5.1	5.1
Sun-07	7.5	7.6		7.6	95	65			3.6	3.6
Mon-08	7.6	7.6		7.6	151	36			4.4	4.4
Tue-09	7.6	7.5		7.7	229	40			5.0	5.0
Wed-10	7.6			7.7	244				6.7	6.7
Thu-11	7.5			7.7	346				7.0	7.0
Fri-12	7.6			7.8	323				5.9	5.9
Sat-13	7.7			7.8	420				8.2	8.2
Sun-14	7.6	7.6		7.5	540	84			5.0	5.0
Mon-15	7.6	7.7		7.6	274	36			3.9	3.9
Tue-16	7.7	7.7		7.6	234	55			3.6	3.6
Wed-17	7.5	7.5		7.6	300	48			5.3	5.3
Thu-18	7.6	7.9		7.6	268	45			4.7	4.7
Fri-19	7.6			7.6	528				4.4	4.4
Sat-20	7.7			7.6	138				4.1	4.1
Sun-21	7.6			7.6	360				3.8	3.8
Mon-22	7.6			7.6	356				5.0	5.0
Tue-23	7.5	7.6		7.6	632	59			4.3	4.3
Wed-24	7.5	7.6		7.6	476	67			4.0	4.0
Thu-25	7.6			7.6	376				5.4	5.4
Fri-26	7.7			7.6	408				4.8	4.8
Sat-27	7.5	7.7		7.6	412	80			4.8	4.8
Sun-28	7.6	7.9		7.6	368	101			5.0	5.0
Mon-29	7.5			7.6	356				5.3	5.3
Tue-30	7.4	7.4		7.6	332	74			5.4	5.4
Average	7.6	7.6	---	7.6	317	58	---	---	4.9	4.9
Minimum	7.4	7.4	---	7.5	60	32	---	---	3.6	3.6
Maximum	7.7	7.9	---	7.8	632	101	---	---	8.2	8.2
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
Mon-01	152	31			3.0	3.0	4.61	1.30			0.22	0.22
Tue-02	201				3.0	3.0	5.95				0.21	0.21
Wed-03	258				3.0	3.0	8.07				0.21	0.21
Thu-04	241				< 2.0	< 2.0	6.98				0.25	0.25
Fri-05	217				2.0	2.0	7.23				0.26	0.26
Sat-06	99	56			3.0	3.0	3.77	2.53			0.25	0.25
Sun-07	102	49			3.0	3.0	3.27	1.88			0.25	0.25
Mon-08	143	45			3.0	3.0	4.52	1.92			0.19	0.19
Tue-09	196	66			3.0	3.0	5.88	2.68			0.18	0.18
Wed-10	197				4.0	4.0	5.63				0.39	0.39
Thu-11	222				4.0	4.0	6.98				0.40	0.40
Fri-12	215				4.0	4.0	6.27				0.36	0.36
Sat-13	256				5.0	5.0	6.89				0.45	0.45
Sun-14	163	69			2.0	2.0	5.21	2.75			0.26	0.26
Mon-15	181	44			3.0	3.0	4.65	1.82			0.20	0.20
Tue-16	197	71			3.0	3.0	5.24	3.01			0.18	0.18
Wed-17	192	93			3.0	3.0	6.24	3.60			0.36	0.36
Thu-18	330	85			3.0	3.0	6.18	3.07			0.31	0.31
Fri-19	227				3.0	3.0	7.69				0.29	0.29
Sat-20	266				2.0	2.0	5.02				0.24	0.24
Sun-21	219				3.0	3.0	7.37				0.20	0.20
Mon-22	243				3.0	3.0	7.14				0.24	0.24
Tue-23	368	143			3.0	3.0	10.8	4.49			0.24	0.24
Wed-24	224	92			2.0	2.0	6.91	4.01			0.22	0.22
Thu-25	219				3.0	3.0	7.17				0.23	0.23
Fri-26	311				3.0	3.0	7.61				0.38	0.38
Sat-27	240	128			2.0	2.0	6.34	5.71			0.24	0.24
Sun-28	346	118			4.0	4.0	7.23	5.24			0.20	0.20
Mon-29	259				3.0	3.0	7.44				0.24	0.24
Tue-30	165	60			3.0	3.0	4.25	2.25			0.24	0.24
Average	222	77	---	---	3.0	3.0	6.28	3.08	---	---	0.26	0.26
Minimum	99	31	---	---	< 2.0	< 2.0	3.27	1.30	---	---	0.18	0.18
Maximum	368	143	---	---	5.0	5.0	10.8	5.71	---	---	0.45	0.45
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
Mon-01	22.7	11.8			1.16	1.16	36.0	15.0		2.8
Tue-02	32.5				1.73	1.73	49.7			3.7
Wed-03	37.4				1.02	1.02	58.1			3.0
Thu-04	40.7				1.00	1.00	54.5			2.8
Fri-05	40.4				1.25	1.25	56.0			3.1
Sat-06	27.3	27.8			0.58	0.58	33.4	30.4		2.4
Sun-07	14.8	12.5			0.11	0.11	24.8	18.7		1.5
Mon-08	25.0	27.8			0.13	0.13	40.9	31.3		1.6
Tue-09	30.5	29.8			0.91	0.91	49.4	40.7		1.6
Wed-10	32.6				2.10	2.10	48.8			4.4
Thu-11	31.4				2.63	2.63	56.6			5.2
Fri-12	35.0				1.68	1.68	51.3			4.1
Sat-13	34.0				1.56	1.56	52.6			3.8
Sun-14	21.4	25.6			1.21	1.21	37.3	32.1		3.0
Mon-15	22.7	14.6			0.18	0.18	36.9	25.2		1.6
Tue-16	27.6	33.7			0.31	0.31	44.9	39.0		2.0
Wed-17	30.2	36.3			0.48	0.48	48.5	45.8		2.3
Thu-18	28.7	34.7			1.46	1.46	51.0	44.9		3.5
Fri-19	32.4				2.10	2.10	55.6			4.1
Sat-20	32.3				1.48	1.48	48.1			3.6
Sun-21	39.4				1.27	1.27	57.1			3.3
Mon-22	38.4				1.33	1.33	57.8			3.1
Tue-23	41.3	35.4			1.12	1.12	75.3	48.8		3.3
Wed-24	30.4	28.4			0.39	0.39	49.8	38.8		1.8
Thu-25	38.8				0.50	0.50	55.9			2.2
Fri-26	39.3				0.79	0.79	60.0			2.9
Sat-27	30.5	31.9			0.67	0.67	44.4	50.1		2.6
Sun-28	37.4	42.3			0.93	0.93	63.3	50.0		2.6
Mon-29	32.2				0.73	0.73	49.7			2.6
Tue-30	18.8	17.3			0.57	0.57	31.5	22.7		2.4
Average	31.5	27.3	---	---	1.05	1.05	49.3	35.6	---	2.9
Minimum	14.8	11.8	---	---	0.11	0.11	24.8	15.0	---	1.5
Maximum	41.3	42.3	---	---	2.63	2.63	75.3	50.1	---	5.2
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
Mon-01		1.34		5.90	69	39		71		0.4		13
Tue-02				9.64	94			91				14
Wed-03	< 0.01			10.9	92			98				11
Thu-04				11.5	100			98				13
Fri-05				11.3	96			102				8
Sat-06		0.67		11.5	66	69		96		1.1		3
Sun-07		1.69		6.38	45	44		59		0.7		5
Mon-08		3.11		7.63	85	85		60		0.4		2
Tue-09		1.31		11.2	96	93		91		1.0		8
Wed-10	< 0.01			9.49	95			101				20
Thu-11				10.9	90			104				18
Fri-12				10.1	87			101				12
Sat-13				10.4	91			104				21
Sun-14		1.11		8.70	64	65		85		1.1		6
Mon-15		3.89		7.05	81	68		63		1.0		8
Tue-16		1.93		9.91	84	89		82		1.0		9
Wed-17	0.07	0.39		12.2	92	105		96		1.1		6
Thu-18		0.53		11.8	99	94		100		0.8		9
Fri-19				11.2	99			99				15
Sat-20				11.6	92			100				17
Sun-21				12.8	92			97				9
Mon-22				13.6	97			96				9
Tue-23		0.14		12.8	98	102		104	1.5	2.0		7
Wed-24	< 0.01	0.30		10.5	81	82		90		1.7		17
Thu-25				11.1	93			90				9
Fri-26				10.8	92			94				9
Sat-27		0.15		10.4	76	78		89		1.0		10
Sun-28		0.06		11.5	90	95		91		1.7		6
Mon-29				10.5	80			86	1.4			12
Tue-30		0.97		6.64	51	52		86		0.8		16
Average	0.03	1.17	---	10.3	86	77	---	91	---	---	---	---
Minimum	< 0.01	0.06	---	5.90	45	39	---	59	1.4	0.4	---	2
Maximum	0.07	3.89	---	13.6	100	105	---	104	1.5	2.0	---	21
GeoMean	---	---	---	---	---	---	---	---	1.4	1.0	---	10
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
163	163	100%	449	449	100%

Report Comments

1	OUTFALL10 - June 23: Analysis of the sample exceeded the recommended hold time for BOD.

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

Alfredo Suarez

Senior Manager, Operations

Shane Harnish

Senior Manager, Analytical Operations