PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
March 2023

Digested Sludge: Total Monthly Volume (ML)	67.1

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent: INFs	Influent: RAW	Effluent, Non UV Disinfected: OUTFALL 30	Effluent, Non UV Disinfected: OUTFALL 20	Effluent, Non UV Disinfected: MPW	Effluent, UV Disinfected: EPEPS	Effluent, UV Disinfected, OUTFALL 10: FEC	Effluent, UV Disinfected, OUTFALL 10: FE
Wed-01	318.6	0.0	264.1	0.0	0.0	11.1	0.0	253.0	253.0
Thu-02	329.9	0.0	268.4	0.0	0.0	12.0	0.0	256.4	256.4
Fri-03	337.5	0.0	271.4	0.0	0.0	12.0	0.0	259.4	259.4
Sat-04	336.7	0.0	266.4	0.0	0.0	12.0	0.0	254.4	254.4
Sun-05	343.4	0.0	265.5	0.0	0.0	12.0	0.0	253.5	253.5
Mon-06	326.7	0.0	268.6	0.0	0.0	11.8	0.0	256.8	256.8
Tue-07	367.9	0.0	263.0	0.0	0.0	12.0	0.0	251.0	251.0
Wed-08	368.5	0.0	265.1	0.0	0.0	11.6	0.0	253.5	253.5
Thu-09	315.0	0.0	265.9	0.0	0.0	11.4	0.0	254.5	254.5
Fri-10	312.5	0.0	269.2	0.0	0.0	10.8	0.0	258.4	258.4
Sat-11	340.3	0.0	266.3	0.0	0.0	10.6	0.0	255.7	255.7
Sun-12	354.7	0.0	259.6	0.0	0.0	12.1	0.0	247.5	247.5
Mon-13	341.5	0.0	270.9	0.0	0.0	12.3	0.0	258.6	258.6
Tue-14	343.7	0.0	270.1	0.0	0.0	12.2	0.0	257.9	257.9
Wed-15	338.8	0.0	273.1	0.0	0.0	12.5	0.0	260.6	260.6
Thu-16	427.0	0.0	291.0	6.8	0.0	11.9	0.0	272.3	272.3
Fri-17	503.4	0.0	299.7	28.2	0.0	12.0	0.0	259.5	259.5
Sat-18	496.5	0.0	296.7	29.3	0.0	11.9	0.0	255.5	255.5
Sun-19	549.1	0.0	312.1	49.0	0.0	11.6	0.0	251.5	251.5
Mon-20	482.4	0.0	317.6	32.8	0.0	11.8	0.0	273.0	273.0
Tue-21	461.4	0.0	320.6	25.8	0.0	12.2	0.0	282.6	282.6
Wed-22	493.1	0.0	339.4	52.0	0.0	12.2	0.0	275.2	275.2
Thu-23	533.5	0.0	349.6	57.5	0.0	12.0	0.0	280.1	280.1
Fri-24	464.6	0.0	326.6	30.2	0.0	12.3	0.0	284.1	284.1
Sat-25	427.0	0.0	285.9	10.1	0.0	12.3	0.0	263.5	263.5
Sun-26	361.4	0.0	276.4	0.0	0.0	12.1	0.0	264.3	264.3
Mon-27	339.0	0.0	273.9	0.0	0.0	12.1	0.0	261.8	261.8
Tue-28	338.6	0.0	275.6	0.0	0.0	11.9	0.0	263.7	263.7
Wed-29	364.7	0.0	284.8	0.0	0.0	12.1	0.0	272.7	272.7
Thu-30	360.4	0.0	275.2	0.0	0.0	12.2	0.0	263.0	263.0
Fri-31	365.2	0.0	280.4	0.0	0.0	12.2	0.0	268.2	268.2
Average	388.5	0.0	284.3	10.4	0.0	11.9	0.0	262.0	262.0
Minimum	312.5	0.0	259.6	0.0	0.0	10.6	0.0	247.5	247.5
Maximum	549.1	0.0	349.6	57.5	0.0	12.5	0.0	284.1	284.1
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,813	322	0	369	0	8,122	8,122

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
Wed-01	7.5			7.6	340				3.6	3.6
Thu-02	7.6			7.5	304				3.6	3.6
Fri-03	7.6			7.6	300				4.4	4.4
Sat-04	7.6			7.6	356				3.7	3.7
Sun-05	7.3			7.6	284				3.2	3.2
Mon-06	7.4			7.6	276				4.5	4.5
Tue-07	7.4			7.6	252				4.5	4.5
Wed-08	7.4			7.6	352				3.3	3.3
Thu-09	7.4			7.6	260				4.5	4.5
Fri-10	7.5			7.6	272				4.8	4.8
Sat-11	7.4			7.7	276				5.0	5.0
Sun-12	7.5			7.6	296				4.5	4.5
Mon-13	7.5			7.6	288				3.9	3.9
Tue-14	7.5			7.7	324				3.8	3.8
Wed-15	7.3			7.6	344				2.9	2.9
Thu-16	7.4	7.7		7.7	352	120			3.8	3.8
Fri-17	7.4	7.5		7.5	400	121			3.0	3.0
Sat-18	7.5	7.6		7.5	248	80			3.3	3.3
Sun-19	7.5	7.5		7.5	336	66			2.8	2.8
Mon-20	7.4	7.7		7.5	344	57			5.0	5.0
Tue-21	7.3	7.7		7.5	332	83			3.7	3.7
Wed-22	7.5	7.6		7.5	303	60			2.2	2.2
Thu-23	7.3	7.4		7.6	300	65			1.6	1.6
Fri-24	7.4	7.5		7.5	298	69			2.1	2.1
Sat-25	7.3	7.7		7.5	340	87			2.3	2.3
Sun-26	7.5			7.6	288				2.1	2.1
Mon-27	7.4			7.6	268				2.0	2.0
Tue-28	7.3			7.6	344				2.6	2.6
Wed-29	7.5			7.7	304				10.0	10.0
Thu-30	7.5			7.5	300				5.7	5.7
Fri-31	7.4			7.6	292				4.4	4.4
Average	7.4	7.6	---	7.6	309	81	---	---	3.8	3.8
Minimum	7.3	7.4	---	7.5	248	57	---	---	1.6	1.6
Maximum	7.6	7.7	---	7.7	400	121	---	---	10.0	10.0
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L): RAW (BOD_5)	BOD_5: OUTFALL 30 (BOD_5)	BOD_5: OUTFALL 20 (BOD_5)	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
Wed-01	293				< 2	2	1.18				0.82	0.82
Thu-02	381				2	2	6.87				0.29	0.29
Fri-03	350				2	2	6.76				0.28	0.28
Sat-04	337				3	3	7.36				0.30	0.30
Sun-05	290				2	2	7.08				0.27	0.27
Mon-06	342				3	3	6.67				0.26	0.26
Tue-07	401				2	2	7.01				0.28	0.28
Wed-08	294				3	3	7.25				0.26	0.26
Thu-09	322				3	3	6.96				0.30	0.30
Fri-10	316				3	3	6.30				0.28	0.28
Sat-11	402				3	3	6.69				0.30	0.30
Sun-12	305				3	3	6.92				0.32	0.32
Mon-13	253				< 2	< 2	7.37				0.30	0.30
Tue-14	385				3	3	7.23				0.28	0.28
Wed-15	362				2	2	7.99				0.29	0.29
Thu-16	318	161			3	3	6.79	6.09			0.25	0.25
Fri-17	298	155			3	3	6.56	4.54			0.25	0.25
Sat-18	272	101			3	3	6.01	5.70			0.23	0.23
Sun-19	293	125			2	2	6.10	4.05			0.19	0.19
Mon-20	307	152			3	3	6.06	3.66			0.23	0.23
Tue-21	159	122			2	2	6.59	3.98			0.24	0.24
Wed-22	282	117			2	2	10.0	3.94			0.16	0.16
Thu-23	383	114			2	2	6.58	3.78			0.15	0.15
Fri-24	276	121			2	2	6.60	4.28			0.19	0.19
Sat-25	281	152			2	2	7.34	5.60			0.18	0.18
Sun-26	273				< 2	2	7.43				0.18	0.18
Mon-27	370				3	3	6.60				0.18	0.18
Tue-28	266				2	2	7.17				0.17	0.17
Wed-29	327				5	5	7.10				0.45	0.45
Thu-30	303				3	3	7.21				0.34	0.34
Fri-31	280				3	3	7.34				0.29	0.29
Average	314	132	---	---	2.6	2.6	6.81	4.56	---	---	0.27	0.27
Minimum	159	101	---	---	< 2	< 2	1.18	3.66	---	---	0.15	0.15
Maximum	402	161	---	---	5	5	10.0	6.09	---	---	0.82	0.82
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	un-ionized NH3-N (mg/L): OUTFAL 30	un-ionized NH3-N: OUTFAL 20	un-ionized NH3-N: OUTFAL 10	TKN (mg/L): RAW	TKN: OUTFALL 30	TKN: OUTFALL 20	TKN: OUTFALL 10 FEC
Wed-01	33.3				2.44	2.44				32.6			4.2
Thu-02	37.8				2.77	2.77				52.4			4.6
Fri-03	30.5				2.85	2.85				49.7			4.3
Sat-04	36.3				2.48	2.48				56.0			4.1
Sun-05	38.2				3.71	3.71				56.2			5.4
Mon-06	39.8				2.79	2.79				55.0			4.6
Tue-07	39.8				2.29	2.29				54.7			3.9
Wed-08	38.1				2.14	2.14				58.1			4.1
Thu-09	37.6				2.87	2.87				58.9			4.6
Fri-10	27.8				2.03	2.03				55.0			4.4
Sat-11	31.1				2.15	2.15				56.1			4.3
Sun-12	37.9				3.10	3.10				66.2			5.2
Mon-13	38.1				2.37	2.37				62.9			4.8
Tue-14	31.6				1.05	1.05				63.7			3.2
Wed-15	33.8				1.38	1.38				63.3			3.4
Thu-16	34.5	42.4			2.21	2.21				59.6	55.2		4.0
Fri-17	33.2	38.6			4.08	4.08				52.9	51.5		6.2
Sat-18	26.2	30.1			2.86	2.86				52.2	44.2		5.0
Sun-19	32.6	32.0			2.47	2.47				46.9	39.4		3.9
Mon-20	31.7	29.3			1.37	1.37				51.9	37.1		2.9
Tue-21	26.4	29.4			1.64	1.64				55.8	45.9		3.5
Wed-22	30.4	26.4			2.40	2.40				81.9	43.8		4.0
Thu-23	28.7	28.3			1.95	1.95				53.2	42.1		3.6
Fri-24	29.3	26.8			1.41	1.41				48.3	40.7		3.3
Sat-25	34.5	31.4			2.29	2.29				51.8	48.5		4.0
Sun-26	31.5				2.40	2.40				52.7			4.6
Mon-27	34.3				3.50	3.50				55.3			5.2
Tue-28	36.1				3.35	3.35				53.9			4.8
Wed-29	33.8				5.83	5.83				49.3			8.0
Thu-30	30.4				5.34	5.34				50.9			8.2
Fri-31	34.2				3.62	3.62				53.3			5.1
Average	33.5	31.5	---	---	2.68	2.68	---	---	---	55.2	44.8	---	4.6
Minimum	26.2	26.4	---	---	1.05	1.05	---	---	---	32.6	37.1	---	2.9
Maximum	39.8	42.4	---	---	5.83	5.83	---	---	---	81.9	55.2	---	8.2
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
Wed-01	0.02			8.74	133			106				3
Thu-02				9.04	179			142				2
Fri-03				8.52	146			186				4
Sat-04				7.41	107			163				3
Sun-05				7.08	90.8			120				2
Mon-06				7.30	98.6			96.5				4
Tue-07				6.40	105			105				4
Wed-08	0.02			7.02	100			108				3
Thu-09				7.25	97.3			104				2
Fri-10				6.82	93.0			99.3				3
Sat-11				6.81	103			99.0				2
Sun-12				6.83	96.0			103				6
Mon-13				6.52	103			96.4				2
Tue-14				5.24	125			102	1.5			8
Wed-15	< 0.01			5.22	142			129	2.1			8
Thu-16		0.36		4.38	199	397		151		1.5		7
Fri-17		0.13		5.26	180	277		190		0.6		14
Sat-18		0.71		5.66	119	212		186		1.8		6
Sun-19		0.10		5.66	151	160		160		2.6		9
Mon-20		0.10		4.23	130	182		145		2.1		2
Tue-21		0.03		4.15	104	126		133		1.9		2
Wed-22	0.01	0.07		4.20	108	133		111		2.7		2
Thu-23		0.10		4.22	114	141		112		1.5		2
Fri-24		0.04		3.41	101	119		116		1.9		6
Sat-25		0.01		3.86	112	162		113		2.2		6
Sun-26				3.59	90.7			119				6
Mon-27				3.20	86.6			101				6
Tue-28				3.91	88.4			96.8				8
Wed-29	< 0.01			3.69	92.6			98.0				13
Thu-30				4.51	83.6			103				9
Fri-31				3.76	88.6			97.3				6
Average	0.01	0.17	---	5.61	115	191	---	122				
Minimum	< 0.01	0.01	---	3.20	83.6	119	---	96.4	1.5	0.6	---	2
Maximum	0.02	0.71	---	9.04	199	397	---	190	2.1	2.7	---	14
GeoMean	---	---	---	---	---	---	---	---	1.8	1.8	---	4.3
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
83	83	100%	95	95	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

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