PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
August 2023

Digested Sludge: Total Monthly Volume (ML)	64.4

Volume of Flow (ML)

DATE	Peak Flow (ML/D)	Influent INFs	Influent RAW	Effluent Non UV Disinfected OUTF ALL 30	Effluent Non UV Disinfected OUTF ALL 20	Effluent Non UV Disinfected MPW	Effluent UV Disinfected EPEPS	Effluent UV Disinfected OUTFALL 10 FEC	Effluent UV Disinfected OUTFALL 10 FE
Tue-01	387.3	0.0	330.2	0.0	0.0	10.5	0.0	319.7	319.7
Wed-02	370.3	0.0	313.7	0.0	0.0	10.5	0.0	303.2	303.2
Thu-03	361.1	0.0	300.2	0.0	0.0	10.7	0.0	289.5	289.5
Fri-04	375.7	0.0	292.2	0.0	0.0	11.0	0.0	281.2	281.2
Sat-05	359.7	0.0	276.1	0.0	0.0	11.0	0.0	265.1	265.1
Sun-06	325.2	0.0	272.8	0.0	0.0	10.9	0.0	261.9	261.9
Mon-07	357.6	0.0	279.6	0.0	0.0	11.0	0.0	268.6	268.6
Tue-08	1,643.9	3.0	527.7	194.1	0.0	10.8	0.0	322.8	322.8
Wed-09	1,933.4	20.0	562.1	204.7	0.0	10.9	0.0	346.5	346.5
Thu-10	841.4	0.0	413.3	31.1	0.0	11.0	0.0	371.2	371.2
Fri-11	387.1	0.0	332.6	0.0	0.0	10.9	0.0	321.7	321.7
Sat-12	369.3	0.0	302.8	0.0	0.0	10.9	0.0	291.9	291.9
Sun-13	378.3	0.0	300.8	0.0	0.0	12.2	0.0	288.6	288.6
Mon-14	373.7	0.0	308.8	0.0	0.0	11.3	0.0	297.5	297.5
Tue-15	377.5	0.0	300.5	0.0	0.0	11.7	0.0	288.8	288.8
Wed-16	358.0	0.0	294.7	0.0	0.0	11.5	0.0	283.2	283.2
Thu-17	1,237.1	0.0	347.5	47.9	0.0	11.3	0.0	288.3	288.3
Fri-18	1,532.4	2.0	874.5	528.8	0.0	10.6	0.0	335.1	335.1
Sat-19	683.6	0.0	412.0	28.6	0.0	10.5	0.0	372.9	372.9
Sun-20	414.1	0.0	339.5	0.0	0.0	11.1	0.0	328.4	328.4
Mon-21	401.7	0.0	334.6	0.0	0.0	10.5	0.0	324.1	324.1
Tue-22	386.3	0.0	321.2	0.0	0.0	2.6	0.0	318.6	318.6
Wed-23	1,129.9	0.0	429.3	121.0	0.0	2.6	0.0	305.7	305.7
Thu-24	537.4	0.0	364.1	5.7	0.0	12.2	0.0	346.2	346.2
Fri-25	405.3	0.0	315.5	0.0	0.0	11.5	0.0	304.0	304.0
Sat-26	386.9	0.0	311.1	0.0	0.0	10.9	0.0	300.2	300.2
Sun-27	405.7	0.0	303.6	0.0	0.0	11.0	0.0	292.6	292.6
Mon-28	471.1	0.0	319.9	0.0	0.0	11.3	0.0	308.6	308.6
Tue-29	378.9	0.0	317.6	0.0	0.0	12.2	0.0	305.4	305.4
Wed-30	443.2	0.0	310.1	0.0	0.0	12.7	0.0	297.4	297.4
Thu-31	408.4	0.0	312.6	0.0	0.0	12.7	0.0	299.9	299.9
Average	594.2	0.8	355.5	27.5	0.0	10.7	0.0	307.4	307.4
Minimum	325.2	0.0	272.8	0.0	0.0	2.6	0.0	261.9	261.9
Maximum	1,933.4	20.0	874.5	528.8	0.0	12.7	0.0	372.9	372.9
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	25	11,021	1,182	0	331	0	9,529	9,529

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTF ALL 30	pH@25°C OUTF ALL 20	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS OUTF ALL 30	TSS OUTF ALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Tue-01	7.7			7.6	238				4.5	4.5
Wed-02	7.6			7.7	224				3.7	3.7
Thu-03	7.5			7.7	236				3.0	3.0
Fri-04	7.6			7.6	280				3.1	3.1
Sat-05	7.7			7.6	220				3.7	3.7
Sun-06	7.6			7.6	292				3.5	3.5
Mon-07	7.7			7.6	263				3.9	3.9
Tue-08	7.4	7.5		7.5	120	98.0			3.3	3.3
Wed-09	7.4	7.5		7.5	308	101			3.5	3.5
Thu-10	7.6	7.9		7.5	268	41.1			3.7	3.7
Fri-11	7.8			7.6	304				3.6	3.6
Sat-12	7.7			7.6	316				3.1	3.1
Sun-13	7.6			7.6	229				3.5	3.5
Mon-14	7.5			7.6	223				3.7	3.7
Tue-15	7.6			7.8	268				4.3	4.3
Wed-16	7.6			7.7	296				2.7	2.7
Thu-17	7.5	7.6		7.6	332	156			2.5	2.5
Fri-18	7.4	7.5		7.5	242	64.0			2.7	2.7
Sat-19	7.6	7.9		7.4	217	28.0			3.0	3.0
Sun-20	7.6			7.6	242				2.8	2.8
Mon-21	7.6			7.7	284				6.6	6.6
Tue-22	7.5			7.7	288				3.5	3.5
Wed-23	7.5	7.6		7.5	420	64.0			2.2	2.2
Thu-24	7.6	8.0		7.5	244	45.8			2.9	2.9
Fri-25	7.6			7.6	260				3.4	3.4
Sat-26	7.6			7.6	258				1.9	1.9
Sun-27	7.5			7.7	252				2.4	2.4
Mon-28	7.6			7.6	289				2.6	2.6
Tue-29	7.5			7.7	324				3.2	3.2
Wed-30	7.5			7.7	260				3.0	3.0
Thu-31	7.6			7.7	298				3.8	3.8
Average	7.6	7.7	---	7.6	268	74.7	---	---	3.3	3.3
Minimum	7.4	7.5	---	7.4	120	28.0	---	---	1.9	1.9
Maximum	7.8	8.0	---	7.8	420	156	---	---	6.6	6.6
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD₅/cBOD₅ (mg/L) RAW BOD₅	BOD₅ OUTF ALL 30 BOD₅	BOD₅ OUTF ALL 20 BOD₅	BOD₅ EPEPS BOD₅	BOD₅ OUTFALL 10 FEC cBOD₅	BOD₅ OUTFALL 10 FE cBOD₅	TP (mg/L) RAW	TP OUTF ALL 30	TP OUTF ALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Tue-01	280				< 2	< 2	6.67				0.23	0.23
Wed-02	223				2	2	6.24				0.22	0.22
Thu-03	267				2	2	6.73				0.24	0.24
Fri-04	226				< 2	< 2	7.32				0.23	0.23
Sat-05	172				2	2	5.84				0.24	0.24
Sun-06	249				2	2	7.29				0.73	0.73
Mon-07	226				< 2	< 2	7.28				0.33	0.33
Tue-08	207	91			< 2	< 2	3.25	3.34			0.26	0.26
Wed-09	131	50			< 2	< 2	3.79	2.76			0.24	0.24
Thu-10	199	36			< 2	< 2	5.37	2.04			0.25	0.25
Fri-11	368				< 2	< 2	7.35				0.25	0.25
Sat-12	243				2	2	6.63				0.27	0.27
Sun-13	318				< 2	< 2	7.01				0.26	0.26
Mon-14	226				2	2	6.52				0.26	0.26
Tue-15	181				3	3	6.65				0.25	0.25
Wed-16	277				< 2	< 2	7.08				0.22	0.22
Thu-17	247	249			< 2	< 2	6.26	5.96			0.19	0.19
Fri-18	116	41			< 2	< 2	2.92	2.10			0.24	0.24
Sat-19	123	24			< 2	< 2	4.49	2.24			0.23	0.23
Sun-20	177				< 2	< 2	5.83				0.22	0.22
Mon-21	261				2	2	7.09				0.26	0.26
Tue-22	301				< 2	< 2	7.23				0.21	0.21
Wed-23	204	78			< 2	< 2	6.43	3.38			0.20	0.20
Thu-24	236	48			< 2	< 2	7.07	3.18			0.18	0.18
Fri-25	272				< 2	< 2	6.45				0.22	0.22
Sat-26	233				< 2	< 2	6.85				0.35	0.35
Sun-27	275				< 2	< 2	7.06				0.34	0.34
Mon-28	235				< 2	< 2	7.21				0.24	0.24
Tue-29	262				< 2	< 2	7.61				0.34	0.34
Wed-30	244				< 2	< 2	8.50				0.26	0.26
Thu-31	305				2	2	7.56				0.23	0.23
Average	235	77	---	---	2.0	2.0	6.44	3.13	---	---	0.26	0.26
Minimum	116	24	---	---	< 2	< 2	2.92	2.04	---	---	0.18	0.18
Maximum	368	249	---	---	3	3	8.50	5.96	---	---	0.73	0.73
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N OUTF ALL 30	NH3-N OUTF ALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	un-ionized NH3-N (mg/L) OUT-FAL 30	un-ionized NH3-N OUT-FAL 20	un-ionized NH3-N OUT-FAL 10	TKN (mg/L) RAW	TKN OUTF ALL 30	TKN OUTF ALL 20	TKN OUTFALL 10 FEC
Tue-01	26.4				0.46	0.46				39.6			1.7
Wed-02	27.4				0.31	0.31				39.4			1.6
Thu-03	27.9				0.38	0.38				40.6			2.0
Fri-04	28.9				1.06	1.06				41.9			2.3
Sat-05	28.0				1.16	1.16				36.2			2.4
Sun-06	28.0				0.59	0.59				40.3			1.7
Mon-07	28.6				0.63	0.63				41.2			1.9
Tue-08	9.44	16.9			0.54	0.54				17.6	23.1		1.9
Wed-09	11.4	12.9			0.33	0.33				22.3	17.2		1.4
Thu-10	16.9	14.3			0.26	0.26				30.3	17.0		1.5
Fri-11	23.3				0.36	0.36				39.6			1.8
Sat-12	24.3				0.47	0.47				36.3			1.8
Sun-13	29.2				0.92	0.92				41.8			2.1
Mon-14	28.0				0.99	0.99				38.1			2.1
Tue-15	28.8				0.36	0.36				37.7			1.7
Wed-16	28.7				0.24	0.24				38.1			1.4
Thu-17	22.1	22.9			0.41	0.41				31.8	35.9		1.5
Fri-18	8.64	11.8			0.18	0.18				14.7	12.8		1.1
Sat-19	18.3	16.2			0.44	0.44				23.6	16.2		1.3
Sun-20	23.2				0.96	0.96				33.8			2.0
Mon-21	26.9				1.01	1.01				39.6			2.3
Tue-22	27.8				0.55	0.55				42.1			1.8
Wed-23	21.8	21.2			0.37	0.37				36.6	24.8		1.6
Thu-24	32.4	22.4			0.31	0.31				45.6	26.2		1.3
Fri-25	32.2				0.74	0.74				41.5			1.8
Sat-26	33.0				0.59	0.59				46.9			2.0
Sun-27	28.2				0.40	0.40				48.5			1.6
Mon-28	31.3				1.48	1.48				46.3			2.5
Tue-29	31.3				1.58	1.58				43.3			2.8
Wed-30	32.0				0.81	0.81				47.9			2.1
Thu-31	30.8				0.36	0.36				41.0			1.5
Average	25.7	17.3	---	---	0.62	0.62	---	---	---	37.6	21.7	---	1.8
Minimum	8.6	11.8	---	---	0.18	0.18	---	---	---	14.7	12.8	---	1.1
Maximum	33.0	22.9	---	---	1.58	1.58	---	---	---	48.5	35.9	---	2.8
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTF ALL 30	NO_2+NO_3 OUTF ALL 20	NO_2+NO_3 OUTFALL 10 FEC	Chloride (mg/L) RAW	Chloride OUTF ALL 30	Chloride OUTF ALL 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
Tue-01				10.5	82.9			86.3				22
Wed-02	< 0.01			10.7	83.5			89.4				10
Thu-03				11.8	86.6			94.8				18
Fri-04				11.0	92.7			98.1				6
Sat-05				11.6	84.3			98.9				6
Sun-06				11.8	82.3			91.4				4
Mon-07				12.9	82.8			91.2				7
Tue-08		0.16		10.8	45.5	53.6		83.3		1.6		2
Wed-09	< 0.01	0.19		7.68	45.3	42.2		67.3		0.7	1	5
Thu-10		0.44		7.51	67.3	48.9		63.7		0.7		5
Fri-11				10.3	87.7			85.4				8
Sat-12				10.8	103			94.9				4
Sun-13				11.4	83.6			90.9				15
Mon-14				10.4	85.6			90.1				11
Tue-15				9.58	88.5			96.7				9
Wed-16				10.5	88.4			102				10
Thu-17		0.05		9.66	76.7	95.5		96.0	5.1	5.1		4
Fri-18		0.36		4.58	39.0	44.5		68.9		1.0		6
Sat-19		0.59		6.40	73.7	53.7		56.8		0.7		5
Sun-20				9.58	100			88.8				5
Mon-21				9.77	93.2			94.9				8
Tue-22				8.57	94.9			98.1	4.2			16
Wed-23	< 0.01	0.13		8.88	70.2	67.8		98.3		2.0		10
Thu-24		0.07		7.71	88.7	67.3		78.4		1.0		5
Fri-25				10.7	88.7			89.3				5
Sat-26				10.4	85.5			96.3				7
Sun-27				11.3	83.5			92.2				7
Mon-28				9.13	91.1			91.4				3
Tue-29				8.81	89.4			96.9				16
Wed-30	< 0.01			9.28	95.8			96.2				11
Thu-31				10.0	92.9			104				5
Average	< 0.01	0.25	---	9.81	82.3	59.2	---	89.4				
Minimum	< 0.01	0.05	---	4.58	39.0	42.2	---	56.8	4.2	0.7	1.0	2
Maximum	< 0.01	0.59	---	12.9	103	95.5	---	104	5.1	5.1	1.0	22
GeoMean	---	---	---	---	---	---	---	---	4.6	1.2	1	7.1
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
60	60	100%	477	477	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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