Gold Bar Wastewater Treatment Plant
Plant Performance Report
April 2023

Digested Sludge: Total Monthly Volume (ML)	69.2

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
Sat-01	397.3	0.0	280.1	0.0	0.0	11.6	0.0	268.5	268.5
Sun-02	482.4	0.0	277.9	0.0	0.0	11.3	0.0	266.6	266.6
Mon-03	474.3	0.0	279.1	0.0	0.0	11.1	0.0	268.0	268.0
Tue-04	364.0	0.0	277.3	0.0	0.0	11.3	0.0	266.0	266.0
Wed-05	373.8	0.0	275.8	0.0	0.0	11.2	0.0	264.6	264.6
Thu-06	346.3	0.0	275.3	0.0	0.0	12.1	0.0	263.2	263.2
Fri-07	352.8	0.0	273.1	0.0	0.0	11.8	0.0	261.3	261.3
Sat-08	357.6	0.0	275.2	0.0	0.0	11.8	0.0	263.4	263.4
Sun-09	346.1	0.0	269.1	0.0	0.0	11.6	0.0	257.5	257.5
Mon-10	379.1	0.0	278.7	0.0	0.0	11.2	0.0	267.5	267.5
Tue-11	665.3	0.0	390.2	112.5	0.0	10.6	0.0	267.1	267.1
Wed-12	451.3	0.0	305.1	10.9	0.0	11.2	0.0	283.0	283.0
Thu-13	345.3	0.0	274.5	0.0	0.0	11.6	0.0	262.9	262.9
Fri-14	331.9	0.0	271.5	0.0	0.0	9.7	0.0	261.8	261.8
Sat-15	344.2	0.0	265.3	0.0	0.0	9.1	0.0	256.2	256.2
Sun-16	355.3	0.0	272.0	0.0	0.0	9.0	0.0	263.0	263.0
Mon-17	662.1	0.0	303.8	33.4	0.0	9.1	0.0	261.3	261.3
Tue-18	372.7	0.0	272.2	2.3	0.0	9.5	0.0	260.4	260.4
Wed-19	342.6	0.0	264.9	0.0	0.0	10.1	0.0	254.8	254.8
Thu-20	312.9	0.0	264.7	0.0	0.0	10.1	0.0	254.6	254.6
Fri-21	307.2	0.0	266.3	0.0	0.0	10.1	0.0	256.2	256.2
Sat-22	325.8	0.0	258.6	0.0	0.0	10.1	0.0	248.5	248.5
Sun-23	337.2	0.0	261.7	0.0	0.0	10.8	0.0	250.9	250.9
Mon-24	316.6	0.0	262.5	0.0	0.0	10.7	0.0	251.8	251.8
Tue-25	320.8	0.0	265.2	0.0	0.0	10.3	0.0	254.9	254.9
Wed-26	449.7	0.0	272.0	9.8	0.0	9.9	0.0	252.3	252.3
Thu-27	369.2	0.0	265.3	0.1	0.0	10.2	0.0	255.0	255.0
Fri-28	303.1	0.0	259.6	0.0	0.0	9.6	0.0	250.0	250.0
Sat-29	323.0	0.0	252.7	0.0	0.0	9.3	0.0	243.4	243.4
Sun-30	330.2	0.0	258.4	0.0	0.0	9.2	0.0	249.2	249.2
Average	381.3	0.0	275.6	5.6	0.0	10.5	0.0	259.5	259.5
Minimum	303.1	0.0	252.7	0.0	0.0	9.0	0.0	243.4	243.4
Maximum	665.3	0.0	390.2	112.5	0.0	12.1	0.0	283.0	283.0
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,268	169	0	315	0	7,784	7,784

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
Sat-01	7.3			7.6	304				3.5	3.5
Sun-02	7.5			7.5	296				5.7	5.7
Mon-03	7.4			7.5	346				6.4	6.4
Tue-04	7.4			7.5	292				7.4	7.4
Wed-05	7.5			7.5	313				7.8	7.8
Thu-06	7.5			7.5	316				6.3	6.3
Fri-07	7.4			7.5	320				29.6	29.6
Sat-08	7.4			7.4	268				20.0	20.0
Sun-09	7.5			7.4	308				15.2	15.2
Mon-10	7.3			7.4	296				32.4	32.4
Tue-11	7.3	7.3		7.4	493	316			65.0	65.0
Wed-12	7.3	7.5		7.5	308	120			5.5	5.5
Thu-13	7.4			7.5	300				4.2	4.2
Fri-14	7.4			7.5	280				4.5	4.5
Sat-15	7.5			7.6	292				4.1	4.1
Sun-16	7.4			7.7	284				5.1	5.1
Mon-17	7.3	7.4		7.6	448	164			7.7	7.7
Tue-18	7.3	7.8		7.5	352	136			6.7	6.7
Wed-19	7.4			7.6	268				4.3	4.3
Thu-20	7.4			7.5	288				3.6	3.6
Fri-21	7.3			7.5	280				3.6	3.6
Sat-22	7.3			7.5	208				3.3	3.3
Sun-23	7.5			7.5	284				3.1	3.1
Mon-24	7.6			7.2	340				4.1	4.1
Tue-25	7.5			7.5	288				3.8	3.8
Wed-26	7.4	7.7		7.4	332	141			3.4	3.4
Thu-27	7.6			7.5	292				3.6	3.6
Fri-28	7.4			7.5	290				3.6	3.6
Sat-29	7.4			7.5	284				3.4	3.4
Sun-30	7.5			7.7	312				4.1	4.1
Average	7.4	7.5	---	7.5	309	175	---	---	9.4	9.4
Minimum	7.3	7.3	---	7.2	208	120	---	---	3.1	3.1
Maximum	7.6	7.8	---	7.7	493	316	---	---	65.0	65.0
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	352				2	2	7.04				0.29	0.29
Sun-02	309				3	3	7.11				0.32	0.32
Mon-03	299				3	3	7.70				0.31	0.31
Tue-04	355				3	3	8.76				0.32	0.32
Wed-05	329				3	3	8.29				0.37	0.37
Thu-06	304				2	2	8.55				0.34	0.34
Fri-07	341				8	8	8.42				1.13	1.13
Sat-08	303				6	6	8.64				0.95	0.95
Sun-09	256				4	4	7.46				0.70	0.70
Mon-10	324				8	8	6.94				1.47	1.47
Tue-11	370	154			14	14	6.73	5.07			2.86	2.86
Wed-12	301	130			3	3	6.74	5.70			0.27	0.27
Thu-13	309				3	3	7.41				0.28	0.28
Fri-14	310				2	2	7.31				0.30	0.30
Sat-15	322				3	3	7.64				0.24	0.24
Sun-16	337				3	3	7.32				0.31	0.31
Mon-17	329	133			3	3	6.89	5.16			0.35	0.35
Tue-18	309	154			3	3	6.85				0.22	0.22
Wed-19	302				3	3	7.67				0.25	0.25
Thu-20	307				3	3	7.74				0.28	0.28
Fri-21	276				2	2	8.30				0.26	0.26
Sat-22	239				2	2	7.08				0.26	0.26
Sun-23	361				3	3	7.72				0.21	0.21
Mon-24	323				2	2	8.52				0.23	0.23
Tue-25	331				3	3	8.45				0.29	0.29
Wed-26	303	276			3	3	8.73	7.84			0.27	0.27
Thu-27	328				2	2	8.10				0.25	0.25
Fri-28	313				2	2	8.52				0.25	0.25
Sat-29	328				2	2	8.49				0.25	0.25
Sun-30	350				3	3	9.08				0.26	0.26
Average	317	169	---	---	3.5	3.5	7.81	5.94	---	---	0.47	0.47
Minimum	239	130	---	---	2	2	6.73	5.07	---	---	0.21	0.21
Maximum	370	276	---	---	14	14	9.08	7.84	---	---	2.86	2.86
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH_3-N (mg/L) RAW	NH_3-N OUTFALL 30	NH_3-N OUTFALL 20	NH_3-N EPEPS	NH_3-N OUTFALL 10 FEC	NH_3-N OUTFALL 10 FE	un-ionized NH_3-N OUTFALL 30	un-ionized NH_3-N OUTFALL 20	un-ionized NH_3-N OUTFALL 10	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Sat-01	33.9				3.49	3.49				54.8			5.3
Sun-02	34.7				3.15	3.15				51.0			5.0
Mon-03	32.7				3.46	3.46				61.6			5.7
Tue-04	35.2				4.89	4.89				62.4			7.2
Wed-05	39.3				5.82	5.82				60.8			7.7
Thu-06	49.2				5.10	5.10				63.0			7.0
Fri-07	53.6				5.65	5.65				62.5			8.5
Sat-08	40.6				6.02	6.02				65.8			8.6
Sun-09	48.6				5.25	5.25				56.7			7.3
Mon-10	44.3				5.22	5.22				51.2			8.8
Tue-11	32.2	36.6			4.56	4.56				45.1	40.1		11.1
Wed-12	25.8	24.6			2.27	2.27				45.8	29.6		3.9
Thu-13	37.3				6.20	6.20				54.2			7.5
Fri-14	39.7				5.79	5.79				57.9			8.1
Sat-15	40.7				4.02	4.02				59.2			6.8
Sun-16	41.0				5.09	5.09				60.0			8.6
Mon-17	37.0	31.5			8.02	8.02				51.4	40.9		9.6
Tue-18	39.5	28.8			5.01	5.01				52.1			7.0
Wed-19	39.8				4.97	4.97				57.3			9.5
Thu-20	38.4				7.63	7.63				60.0			9.9
Fri-21	38.3				4.73	4.73				61.2			6.7
Sat-22	39.7				4.33	4.33				55.6			5.9
Sun-23	39.2				4.17	4.17				67.1			6.1
Mon-24	38.0				4.16	4.16				56.5			5.2
Tue-25	39.5				4.74	4.74				54.1			5.5
Wed-26	38.2	37.9			4.88	4.88				51.2	51.9		6.4
Thu-27	36.9				5.00	5.00				50.2			6.2
Fri-28	41.1				5.51	5.51				51.1			6.1
Sat-29	40.6				6.39	6.39				51.6			7.2
Sun-30	42.4				6.17	6.17				55.3			7.1
Average	39.2	31.9	---	---	5.06	5.06	---	---	---	56.2	40.6	---	7.2
Minimum	25.8	24.6	---	---	2.27	2.27	---	---	---	45.1	29.6	---	3.9
Maximum	53.6	37.9	---	---	8.02	8.02	---	---	---	67.1	51.9	---	11.1
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				3.47	90.4			97.6				5
Sun-02				4.13	87.3			95.9				7
Mon-03				4.17	92.6			99.7				14
Tue-04				5.27	90.8			107				7
Wed-05	< 0.01			5.87	90.5			103				17
Thu-06				5.91	96.8			105				7
Fri-07				6.63	80.5			104				19
Sat-08				6.38	83.0			95.3				9
Sun-09				6.52	77.2			94.4				12
Mon-10				7.58	85.8			93.5				19
Tue-11		0.21		6.45	144	164		107		1.1		16
Wed-12	0.01	0.04		5.78	89.7	115		123		0.9		21
Thu-13				6.97	78.0			106				7
Fri-14				7.66	82.2			97.8	1.8			9
Sat-15				6.40	94.4			105				15
Sun-16				4.82	73.8			89.0				15
Mon-17		0.16		4.55	90.2	119		79.2		1.1		18
Tue-18				5.85	79.1			87.7	1.8	1.5		8
Wed-19	< 0.01			7.13	71.4			89.7				12
Thu-20				8.99	114			93.6				12
Fri-21				9.24	81.4			92.7				8
Sat-22				9.78	110			89.8				4
Sun-23				9.20	77.6			81.9				7
Mon-24				9.02	88.2			79.9				4
Tue-25				9.30	90.0			91.9				4
Wed-26	< 0.01	0.05		9.99	93.9	130		94.9		0.4		8
Thu-27				9.73	78.3			93.1		2.3		6
Fri-28				10.4	81.9			91.7				5
Sat-29				10.3	76.3			88.7				5
Sun-30				10.7	82.3			82.7				3
Average	0.01	0.11	---	7.27	88.4	132	---	95.4				
Minimum	< 0.01	0.04	---	3.47	71.4	115	---	79.2	1.8	0.4	---	3
Maximum	0.01	0.21	---	10.7	144	164	---	123	1.8	2.3	---	21
GeoMean	---	---	---	---	---	---	---	---	1.8	1.1	---	8.8
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
24	24	100%	119	119	100%

Report Comments

18-Apr-23	Outfall 30 composite sample collected on April 18 (< 2 hours) was tested for BOD, Ammonia-nitrogen, pH, TSS and grab samples
	was tested for E.coli.
27-Apr-23	Grab sample was tested for E. coli. only.

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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