Gold Bar Wastewater Treatment Plant
Plant Performance Report
July 2021

Digested Sludge: Total Monthly Volume (ML)	67.8

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
Thu-01	323.4	0.0	268.3	0.0	0.0	10.6	0.0	257.7	257.7
Fri-02	319.1	0.0	271.4	0.0	0.0	10.7	0.0	260.7	260.7
Sat-03	318.2	0.0	260.4	0.0	0.0	12.1	0.0	248.3	248.3
Sun-04	341.5	0.0	259.8	0.0	0.0	12.2	0.0	247.6	247.6
Mon-05	302.2	0.0	265.2	0.0	0.0	12.3	0.0	252.9	252.9
Tue-06	779.9	0.0	346.2	37.3	0.0	12.0	0.0	296.9	296.9
Wed-07	323.2	0.0	272.3	0.0	0.0	11.6	0.0	260.7	260.7
Thu-08	315.5	0.0	272.0	0.0	0.0	11.1	0.0	260.9	260.9
Fri-09	450.0	0.0	273.3	0.0	0.0	10.8	0.0	262.5	262.5
Sat-10	379.8	0.0	271.3	0.0	0.0	11.9	0.0	259.4	259.4
Sun-11	305.3	0.0	254.7	0.0	0.0	11.7	0.0	243.0	243.0
Mon-12	310.2	0.0	268.5	0.0	0.0	11.5	0.0	257.0	257.0
Tue-13	307.8	0.0	267.2	0.0	0.0	11.7	0.0	255.5	255.5
Wed-14	311.7	0.0	268.1	0.0	0.0	11.6	0.0	256.5	256.5
Thu-15	308.1	0.0	268.6	0.0	0.0	11.1	0.0	257.5	257.5
Fri-16	300.2	0.0	261.7	0.0	0.0	11.6	0.0	250.1	250.1
Sat-17	291.5	0.0	262.2	0.0	0.0	11.3	0.0	250.9	250.9
Sun-18	354.4	0.0	263.8	0.0	0.0	11.5	0.0	252.3	252.3
Mon-19	294.2	0.0	253.9	0.0	0.0	11.8	0.0	242.1	242.1
Tue-20	293.3	0.0	252.4	0.0	0.0	11.9	0.0	240.5	240.5
Wed-21	1,876.8	5.0	285.9	29.1	0.2	11.5	0.0	245.1	245.1
Thu-22	1,476.4	2.0	480.1	171.6	0.5	11.3	0.0	296.7	296.7
Fri-23	347.0	0.0	278.0	0.0	0.0	10.5	0.0	267.5	267.5
Sat-24	311.8	0.0	252.6	0.0	0.0	10.5	0.0	242.1	242.1
Sun-25	316.9	0.0	251.9	0.0	0.0	10.6	0.0	241.3	241.3
Mon-26	312.8	0.0	268.8	0.0	0.0	10.9	0.0	257.9	257.9
Tue-27	308.6	0.0	259.6	0.0	0.0	10.9	0.0	248.7	248.7
Wed-28	309.3	0.0	258.4	0.0	0.0	10.8	0.0	247.6	247.6
Thu-29	309.7	0.0	261.9	0.0	0.0	11.0	0.0	250.9	250.9
Fri-30	310.4	0.0	264.7	0.0	0.0	11.3	0.0	253.4	253.4
Sat 31	303.1	0.0	251.0	0.0	0.0	10.9	0.0	240.1	240.1
Average	423.0	0.2	274.0	7.7	0.0	11.3	0.0	255.0	255.0
Minimum	291.5	0.0	251.0	0.0	0.0	10.5	0.0	240.1	240.1
Maximum	1,876.8	5.0	480.1	171.6	0.5	12.3	0.0	296.9	296.9
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	7	8,494	238	1	351	0	7,904	7,904

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
Thu-01	7.5			7.6	284				4.1	4.1
Fri-02	7.5			7.6	260				3.0	3.0
Sat-03	7.4			7.6	304				10.9	10.9
Sun-04	7.5			7.6	316				6.3	6.3
Mon-05	7.5			7.5	340				4.1	4.1
Tue-06	7.3	7.2		7.6	304	79			3.7	3.7
Wed-07	7.5			7.6	276				5.0	5.0
Thu-08	7.5			7.6	248				3.7	3.7
Fri-09	7.4			7.5	276				4.4	4.4
Sat-10	7.6			7.5	254				4.5	4.5
Sun-11	7.5			7.7	272				7.9	7.9
Mon-12	7.5			7.6	260				4.9	4.9
Tue-13	7.5			7.5	292				6.1	6.1
Wed-14	7.4			7.5	254				3.5	3.5
Thu-15	7.4			7.6	308				4.1	4.1
Fri-16	7.5			7.7	283				3.7	3.7
Sat-17	7.5			7.5	380				4.6	4.6
Sun-18	7.4			7.6	384				7.0	7.0
Mon-19	7.5			7.5	348				11.0	11.0
Tue-20	7.4			7.6	317				6.8	6.8
Wed-21	7.4	7.7	6.9	7.5	352	383	2740		5.2	5.2
Thu-22	7.3	7.4	7.0	7.4	568	98	303		5.5	5.5
Fri-23	7.5			7.4	356				4.1	4.1
Sat-24	7.4			7.6	272				4.1	4.1
Sun-25	7.5			7.6	266				5.8	5.8
Mon-26	7.5			7.6	284				5.9	5.9
Tue-27	7.5			7.6	264				5.8	5.8
Wed-28	7.6			7.6	296				5.9	5.9
Thu-29	7.4			7.5	240				6.1	6.1
Fri-30	7.5			7.5	264				6.1	6.1
Sat 31	7.4			7.5	248				6.1	6.1
Average	7.4	7.4	6.9	7.6	302	187	1522	---	5.5	5.5
Minimum	7.3	7.2	6.9	7.4	240	79	303	---	3.0	3.0
Maximum	7.6	7.7	7.0	7.7	568	383	2740	---	11.0	11.0
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	BOD_5 OUTFALL 10 FEC $cBOD_5$	BOD_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
Thu-01	225				2	2	6.29				0.26	0.26
Fri-02	185				< 2	2	8.22				0.22	0.22
Sat-03	254				3	3	6.46				0.31	0.31
Sun-04	278				3	3	6.63				0.26	0.26
Mon-05	292				< 2	2	8.54				0.27	0.27
Tue-06	326	150			< 2	2	6.53	3.30			0.24	0.24
Wed-07	260				3	3	6.96				0.34	0.34
Thu-08	208				2	2	5.03				0.24	0.24
Fri-09	253				3	3	6.16				0.23	0.23
Sat-10	280				2	2	6.58				0.24	0.24
Sun-11	288				3	3	6.48				0.24	0.24
Mon-12	281				3	3	8.34				0.30	0.30
Tue-13	301				3	3	6.47				0.33	0.33
Wed-14	312				3	3	6.51				0.28	0.28
Thu-15	269				2	2	6.83				0.25	0.25
Fri-16	308				2	2	6.54				0.27	0.27
Sat-17	335				2	2	7.05				0.30	0.30
Sun-18	287				3	3	6.42				0.38	0.38
Mon-19	302				4	4	6.80				0.51	0.51
Tue-20	291				3	3	0.60				0.41	0.41
Wed-21	334	282	178		3	3	7.46	7.61	3.50		0.28	0.28
Thu-22	248	86	102		3	3	5.59	2.86	2.51		0.31	0.31
Fri-23	230				3	3	5.4				0.28	0.28
Sat-24	251				3	3	5.90				0.27	0.27
Sun-25	222				3	3	6.12				0.32	0.32
Mon-26	310				3	3	6.23				0.30	0.30
Tue-27	253				3	3	6.32				0.34	0.34
Wed-28	289				3	3	8.06				0.34	0.34
Thu-29	296				3	3	6.61				0.36	0.36
Fri-30	234				3	3	6.79				0.38	0.38
Sat 31	302				3	3	6.61				0.37	0.37
Average	274	173	140	---	3	3	6.47	4.59	3.01	---	0.30	0.30
Minimum	185	86	102	---	< 2	2	0.60	2.86	2.51	---	0.22	0.22
Maximum	335	282	178	---	4	4	8.5	7.61	3.50	---	0.51	0.51
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	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	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
Thu-01	28.1				0.12	0.12	48.2			1.6				10.0	79			85.4				2
Fri-02	24.9				0.17	0.17	59.9			1.8				11.8	76			83.3				3
Sat-03	29.0				0.18	0.18	47.4			2.3				11.2	74			85.0				8
Sun-04	32.4				0.17	0.17	54.1			2.0				13.2	73			83.2				4
Mon-05	26.3				0.17	0.17	63.3			1.6				12.5	79			82.1				32
Tue-06	23.5	21.7			0.14	0.14	40.2	29.3		2.0		0.52		9.77	68	61		83.2		4		4
Wed-07	29.6				0.20	0.20	52.4			2.1	< 0.01			10.3	75			89.8				18
Thu-08	29.7				0.19	0.19	34.7			2.0				11.4	72			90.6	2			22
Fri-09	30.3				0.08	0.08	51.0			2.0				11.8	70			88.3				12
Sat-10	27.8				0.17	0.17	47.0			2.1				13.1	66			86.4				6
Sun-11	30.2				0.20	0.20	53.8			1.9				12.3	65			80.6				4
Mon-12	28.9				0.13	0.13	66.7			1.8				12.7	69			89.0				7
Tue-13	30.4				0.08	0.08	48.2			1.9				11.3	68			85.6				14
Wed-14	33.6				0.10	0.10	48.6			1.6	0.06			11.0	66			83.8				11
Thu-15	29.1				0.06	0.06	49.2			1.6				10.2	80			81.9				19
Fri-16	31.1				0.10	0.10	48.8			1.6				9.9	72			87.8				13
Sat-17	30.8				0.12	0.12	45.7			1.9				10.9	71			84.4				17
Sun-18	32.8				0.48	0.48	55.4			2.4				10.7	71			80.8				16
Mon-19	30.8				0.23	0.23	52.5			2.3				11.7	76			79.8				22
Tue-20	29.7				0.22	0.22	4.4			2.1				8.32	70			89.3				18
Wed-21	28.1	29.9	10.2		0.76	0.76	50.2	53.1	21.6	2.3	0.02	1.25	0.37	8.87	63	58	29	81.7		4	1	7
Thu-22	18.4	22.6	9.9		0.45	0.45	34.5	26.6	15.9	2.5		0.37	0.43	5.95	44	50	28	73.4		1	1	10
Fri-23	30.8				0.74	0.74	40.4			2.2				8.41	62			64.1				26
Sat-24	31.7				1.03	1.03	38.8			2.8				10.4	61			79.4				9
Sun-25	31.4				0.84	0.84	50.1			2.8				11.4	56			76.8				18
Mon-26	29.7				1.24	1.24	50.1			3.4				10.2	63			75.4				13
Tue-27	30.0				0.92	0.92	50.8			2.5				10.2	62			77.8				19
Wed-28	30.9				0.71	0.71	58.3			2.5	0.04			10.7	66			82.8	2			16
Thu-29	30.8				0.80	0.80	44.5			2.5				10.8	70			72.6				14
Fri-30	29.2				1.08	1.08	49.5			2.9				11.3	71			80.6				17
Sat 31	30.8				1.00	1.00	49.3			2.7				11.1	62			79.2				10
Average	29.4	24.7	10.1	---	0.42	0.42	48.0	36.3	18.8	2.2	0.03	0.71	0.40	10.8	68	56	29	82.1	---	---	---	---
Minimum	18.4	21.7	9.9	---	0.06	0.06	4.4	26.6	15.9	1.6	< 0.01	0.37	0.37	5.95	44	50	28	64.1	2	1	1	2
Maximum	33.6	29.9	10.2	---	1.24	1.24	66.7	53.1	21.6	3.4	0.06	1.25	0.43	13.2	80	61	29	90.6	2	4	1	32
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	3	1	11
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
17	17	100%	181	181	100%

Report Comments

	Report amended by removing the E coli result for outfall 20 - July 9. The sample tested was not from a bypass event.

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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