Gold Bar Wastewater Treatment Plant
Plant Performance Report
February 2024

Digested Sludge: Total Monthly Volume (ML)	68.6

Volume of Flow (ML)

DATE	Peak Flow (ML/D)	Influent INFs	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Effluent Non UV Disinfected OUTFALL 20	Effluent Non UV Disinfected MPW	Effluent UV Disinfected EPIEPS	Effluent UV Disinfected OUTFALL 10 FEC	Effluent UV Disinfected OUTFALL 10 FE
Thu-01	305.6	0.0	271.6	0.0	0.0	10.3	0.0	261.3	261.3
Fri-02	363.1	0.0	264.2	0.0	0.0	11.3	0.0	252.9	252.9
Sat-03	368.4	0.0	271.0	0.0	0.0	10.7	0.0	260.3	260.3
Sun-04	378.9	0.0	274.3	0.0	0.0	11.6	0.0	262.7	262.7
Mon-05	371.0	0.0	274.3	0.0	0.0	11.0	0.0	263.3	263.3
Tue-06	383.8	0.0	268.4	0.0	0.0	10.5	0.0	258.9	258.9
Wed-07	381.3	0.0	272.1	0.0	0.0	10.5	0.0	261.6	261.6
Thu-08	332.9	0.0	266.6	0.0	0.0	10.6	0.0	256.0	256.0
Fri-09	333.6	0.0	266.2	0.0	0.0	10.6	0.0	255.6	255.6
Sat-10	578.7	0.0	272.9	0.0	0.0	10.5	0.0	262.4	262.4
Sun-11	484.6	0.0	272.4	5.4	0.0	10.5	0.0	256.5	256.5
Mon-12	353.3	0.0	273.6	0.1	0.0	11.0	0.0	262.5	262.5
Tue-13	334.0	0.0	270.4	0.0	0.0	11.6	0.0	258.8	258.8
Wed-14	330.9	0.0	274.4	0.0	0.0	11.0	0.0	263.4	263.4
Thu-15	335.2	0.0	271.9	0.0	0.0	11.7	0.0	260.2	260.2
Fri-16	322.4	0.0	275.5	0.0	0.0	11.0	0.0	264.5	264.5
Sat-17	356.8	0.0	276.5	0.0	0.0	11.1	0.0	265.4	265.4
Sun-18	348.9	0.0	270.9	0.0	0.0	11.1	0.0	259.8	259.8
Mon-19	384.9	0.0	272.9	0.0	0.0	10.9	0.0	262.0	262.0
Tue-20	335.2	0.0	275.9	0.0	0.0	12.0	0.0	263.9	263.9
Wed-21	432.1	0.0	277.9	0.0	0.0	10.9	0.0	267.0	267.0
Thu-22	410.8	0.0	282.9	0.0	0.0	10.9	0.0	272.0	272.0
Fri-23	417.3	0.0	290.6	0.0	0.0	11.4	0.0	279.2	279.2
Sat-24	345.9	0.0	272.5	0.0	0.0	12.5	0.0	260.0	260.0
Sun-25	362.8	0.0	272.9	0.0	0.0	12.3	0.0	260.6	260.6
Mon-26	323.9	0.0	271.8	0.0	0.0	10.6	0.0	261.2	261.2
Tue-27	330.8	0.0	270.5	0.0	0.0	7.5	0.0	263.0	263.0
Wed-28	311.8	0.0	272.9	0.0	0.0	8.8	0.0	264.1	264.1
Thu-29	328.9	0.0	273.3	0.0	0.0	7.0	0.0	266.3	266.3
Average	369.2	0.0	273.2	0.2	0.0	10.7	0.0	262.3	262.3
Minimum	311.8	0.0	264.2	0.0	0.0	7.0	0.0	252.9	252.9
Maximum	578.7	0.0	290.6	5.4	0.0	12.5	0.0	279.2	279.2
Geo Mean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	7,922	6	0	311	0	7,606	7,606

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 EPIEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Thu-01	7.4			7.4	360				4.6	4.6
Fri-02	7.4			7.5	348				3.5	3.5
Sat-03	7.4			7.5	320				3.2	3.2
Sun-04	7.5			7.5	296				3.6	3.6
Mon-05	7.4			7.6	294				3.3	3.3
Tue-06	7.4			7.5	313				3.3	3.3
Wed-07	7.5			7.6	376				4.4	4.4
Thu-08	7.4			7.5	330				2.7	2.7
Fri-09	7.3			7.5	364				3.4	3.4
Sat-10	7.4			7.5	344				3.9	3.9
Sun-11	7.5	7.7		7.5	272	92			3.2	3.2
Mon-12	7.5			7.4	327				2.8	2.8
Tue-13	7.4			7.5	292				2.4	2.4
Wed-14	7.4			7.5	480				2.5	2.5
Thu-15	7.4			7.6	312				2.2	2.2
Fri-16	7.5			7.6	292				2.5	2.5
Sat-17	7.5			7.6	264				3.2	3.2
Sun-18	7.5			7.6	292				4.0	4.0
Mon-19	7.5			7.5	377				4.2	4.2
Tue-20	7.4			7.5	348				4.0	4.0
Wed-21	7.4			7.3	306				3.4	3.4
Thu-22	7.4			7.6	336				3.3	3.3
Fri-23	7.4			7.4	376				3.2	3.2
Sat-24	7.5			7.5	406				3.8	3.8
Sun-25	7.6			7.6	110				2.9	2.9
Mon-26	7.5			7.5	348				4.9	4.9
Tue-27	7.4			7.5	353				3.8	3.8
Wed-28	7.4			7.5	420				4.2	4.2
Thu-29	7.5			7.6	476				4.3	4.3
Average	7.4	7.7	---	7.5	336	92	---	---	3.5	3.5
Minimum	7.3	7.7	---	7.3	110	92	---	---	2.2	2.2
Maximum	7.6	7.7	---	7.6	480	92	---	---	4.9	4.9
Geo Mean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD5/cBOD5 (mg/L) RAW BOD5	BOD5 OUTFALL 30 BOD5	BOD5 OUTFALL 20 BOD5	BOD5 EPIEPS BOD5	BOD5 OUTFALL 10 cBOD5 FEC	BOD5 OUTFALL 10 cBOD5 FE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPIEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Thu-01	347				3	3	0.59				0.27	0.27
Fri-02	380				3	3	0.72				0.27	0.27
Sat-03	331				3	3	0.54				0.37	0.37
Sun-04	323				3	3	0.37				0.40	0.40
Mon-05	329				3	3	0.31				0.38	0.38
Tue-06	330				2	2	0.54				0.98	0.98
Wed-07	331				3	3	0.78				0.74	0.74
Thu-08	372				3	3	0.82				0.28	0.28
Fri-09	368				2	2	0.27				0.31	0.31
Sat-10	304				2	2	0.24				0.30	0.30
Sun-11	325	267			2	2	0.77	7.52			0.26	0.26
Mon-12	332				2	2	0.18				0.25	0.25
Tue-13	310				< 2	< 2	0.11				0.27	0.27
Wed-14	284				2	2	0.21				0.23	0.23
Thu-15	323				3	3	0.88				0.21	0.21
Fri-16	331				2	2	0.04				0.24	0.24
Sat-17	336				3	3	7.64				0.26	0.26
Sun-18	324				3	3	7.67				0.26	0.26
Mon-19	317				3	3	7.41				0.27	0.27
Tue-20	317				3	3	7.58				0.31	0.31
Wed-21	345				3	3	7.80				0.29	0.29
Thu-22	320				3	3	8.24				0.31	0.31
Fri-23	350				3	3	7.49				0.27	0.27
Sat-24	360				3	3	8.22				0.22	0.22
Sun-25	340				3	3	6.33				0.18	0.18
Mon-26	365				3	3	8.12				0.25	0.25
Tue-27	421				3	3	8.78				0.23	0.23
Wed-28	377				3	3	8.88				0.23	0.23
Thu-29	340				3	3	9.22				0.26	0.26
Average	329	267	---	---	2.7	2.7	8.31	7.52	---	---	0.32	0.32
Minimum	284	267	---	---	< 2	< 2	6.33	7.52	---	---	0.18	0.18
Maximum	421	267	---	---	3	3	10.4	7.52	---	---	0.98	0.98
Geo Mean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPIEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	un-ionized NH3-N (mg/L) OUTFALL 30	un-ionized NH3-N OUTFALL 20	un-ionized NH3-N OUTFALL 10	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Thu-01	41.8				4.40	4.40				54.4			5.5
Fri-02	43.3				3.75	3.75				57.1			4.4
Sat-03	41.9				4.93	4.93				59.1			5.9
Sun-04	41.1				5.32	5.32				54.3			6.2
Mon-05	40.8				4.94	4.94				51.8			6.0
Tue-06	41.7				5.03	5.03				53.1			6.1
Wed-07	39.3				5.01	5.01				52.1			5.8
Thu-08	39.4				3.37	3.37				51.0			4.4
Fri-09	38.0				2.84	2.84				53.9			4.2
Sat-10	39.8				2.97	2.97				53.6			4.2
Sun-11	39.8	39.9			2.96	2.96				51.4	48.7		4.3
Mon-12	38.6				2.08	2.08				52.0			3.2
Tue-13	38.1				2.10	2.10				52.9			3.4
Wed-14	38.5				2.33	2.33				50.5			3.5
Thu-15	39.4				2.50	2.50				51.1			3.5
Fri-16	38.4				3.01	3.01				49.2			4.2
Sat-17	39.8				5.00	5.00				46.3			5.6
Sun-18	38.1				4.63	4.63				47.9			5.7
Mon-19	38.7				3.02	3.02				47.4			3.7
Tue-20	37.9				2.81	2.81				54.3			3.9
Wed-21	37.7				4.00	4.00				46.2			5.1
Thu-22	38.6				5.07	5.07				49.8			6.1
Fri-23	34.4				5.39	5.39				55.2			6.5
Sat-24	40.1				4.16	4.16				58.7			5.1
Sun-25	40.4				4.38	4.30				50.2			5.6
Mon-26	39.2				4.47	4.47				57.2			5.6
Tue-27	39.5				4.58	4.58				57.6			5.4
Wed-28	37.6				4.82	4.82				55.1			5.7
Thu-29	35.1				4.69	4.50				53.9			5.5
Average	39.2	39.9	---	---	3.94	3.94	---	---	---	52.6	48.7	---	5.0
Minimum	34.4	39.9	---	---	2.08	2.08	---	---	---	46.2	48.7	---	3.2
Maximum	43.3	39.9	---	---	5.39	5.39	---	---	---	59.1	48.7	---	6.5
Geo Mean	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NO2+NO3 (mg/L) RAW	NO2+NO3 OUTFALL 30	NO2+NO3 OUTFALL 20	NO2+NO3 OUTFALL 10 FEC	Chloride (mg/L) RAW	Chloride OUTFALL 30	Chloride OUTFALL 20	Chloride OUTFALL 10 FEC	E. coli (Counts/100 mL) RAW	E. coli OUTFALL 30	E. coli OUTFALL 20	E. coli OUTFALL 10 FEC
Thu-01				8.5	135			174				19
Fri-02				8.8	104			138				12
Sat-03				7.8	87.5			120				17
Sun-04				8.0	87.0			98.8				8
Mon-05				8.6	123			96.7				17
Tue-06				10.0	129			126				18
Wed-07	< 0.01			8.5	126			137				24
Thu-08				6.4	138			140				5
Fri-09				5.6	129			138				8
Sat-10				6.1	108			131				8
Sun-11		0.02		7.2	132	161		112		3.3		8
Mon-12				7.7	119			131		3.1		5
Tue-13				6.1	108			126				7
Wed-14	< 0.01			6.1	108			121				5
Thu-15				5.7	103			114				5
Fri-16				5.7	102			112				8
Sat-17				5.6	106			110				9
Sun-18				6.5	98.4			107				8
Mon-19				7.0	97.0			100				11
Tue-20				7.6	98.0			96.0	1.9			7
Wed-21	< 0.01			8.4	113			102				8
Thu-22				7.2	132			118	1.8			11
Fri-23				7.1	135			138				19
Sat-24				8.1	93.3			142				12
Sun-25				7.7	94.6			102				10
Mon-26				9.6	95.3			106				15
Tue-27				9.3	101			106				8
Wed-28	< 0.01			8.3	94.1			106				12
Thu-29				8.7	90.2			100				5
Average	< 0.01	0.02	---	7.51	110	161	---	119				---
Minimum	< 0.01	0.02	---	5.59	87.0	161	---	96.0	1.8	3.1	---	5
Maximum	< 0.01	0.02	---	10.0	138	161	---	174	1.9	3.3	---	24
Geo Mean	---	---	---	---	---	---	---	---	1.8	3.2	---	9.6
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
8	8	100%	14	14	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

Allan Gordon for

Trina Manning M.Sc.; P.Eng.
Senior Manager, WWTP Operations

Jeff Charrois PhD
Senior Manager, Analytical Operations