PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
September 2024

Digested Sludge: Total Monthly Volume (ML)	69.9

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: EPEPS	Effluent, UV Disinfected: OUTFALL 10 FEC	Effluent, UV Disinfected: OUTFALL 10 FE
Sun-01	348.4	0.0	276.9	0.0	0.0	11.8	0.0	265.1	265.1
Mon-02	582.1	0.0	294.9	11.3	0.0	12.4	0.0	271.2	271.2
Tue-03	553.7	0.0	309.5	5.5	0.0	13.1	0.0	290.9	290.9
Wed-04	349.8	0.0	285.4	0.0	0.0	12.3	0.0	273.1	273.1
Thu-05	341.6	0.0	286.3	0.0	0.0	10.4	0.0	275.9	275.9
Fri-06	336.9	0.0	288.1	0.0	0.0	10.3	0.0	277.8	277.8
Sat-07	349.0	0.0	282.8	0.0	0.0	11.5	0.0	271.3	271.3
Sun-08	410.2	0.0	286.7	0.0	0.0	12.2	0.0	274.5	274.5
Mon-09	365.5	0.0	288.4	0.0	0.0	13.1	0.0	275.3	275.3
Tue-10	343.0	0.0	281.2	0.0	0.0	12.7	0.0	268.5	268.5
Wed-11	354.5	0.0	280.1	0.0	0.0	12.7	0.0	267.4	267.4
Thu-12	594.3	0.0	345.7	30.9	0.0	12.4	0.0	302.4	302.4
Fri-13	337.3	0.0	285.2	0.0	0.0	11.9	0.0	273.3	273.3
Sat-14	568.8	0.0	306.1	22.7	0.0	12.6	0.0	270.8	270.8
Sun-15	474.6	0.0	299.5	11.9	0.0	13.3	0.0	274.3	274.3
Mon-16	412.1	0.0	292.5	2.3	0.0	13.1	0.0	277.1	277.1
Tue-17	340.6	0.0	283.0	0.0	0.0	12.4	0.0	270.6	270.6
Wed-18	338.9	0.0	283.5	0.0	0.0	12.6	0.0	270.9	270.9
Thu-19	332.1	0.0	278.2	0.0	0.0	12.1	0.0	266.1	266.1
Fri-20	349.1	0.0	287.9	0.0	0.0	12.2	0.0	275.7	275.7
Sat-21	352.3	0.0	273.8	0.0	0.0	12.4	0.0	261.4	261.4
Sun-22	591.0	0.0	298.4	24.9	0.0	13.1	0.0	260.4	260.4
Mon-23	410.6	0.0	284.1	2.2	0.0	4.8	0.0	277.1	277.1
Tue-24	345.0	0.0	272.2	0.0	0.0	0.0	0.0	272.2	272.2
Wed-25	341.3	0.0	277.9	0.0	0.0	0.0	0.0	277.9	277.9
Thu-26	1,121.1	0.0	418.9	81.7	0.0	4.0	0.0	333.2	333.2
Fri-27	355.5	0.0	294.0	0.0	0.0	13.2	0.0	280.8	280.8
Sat-28	375.2	0.0	276.2	0.0	0.0	12.5	0.0	263.7	263.7
Sun-29	375.2	0.0	284.2	0.0	0.0	12.2	0.0	272.0	272.0
Mon-30	395.9	0.0	287.2	0.0	0.0	12.7	0.0	274.5	274.5
Average	427.5	0.0	293.0	6.4	0.0	11.0	0.0	275.5	275.5
Minimum	332.1	0.0	272.2	0.0	0.0	0.0	0.0	260.4	260.4
Maximum	1,121.1	0.0	418.9	81.7	0.0	13.3	0.0	333.2	333.2
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,789	193	0	330	0	8,265	8,265

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
Sun-01	7.7			7.5	464				3.5	3.5
Mon-02	7.5	7.8		7.5	552	95			4.2	4.2
Tue-03	7.5	7.7		7.4	348	44			3.6	3.6
Wed-04	7.6			7.6	308				4.1	4.1
Thu-05	7.5			7.5	316				3.9	3.9
Fri-06	7.5			7.6	297				4.8	4.8
Sat-07	7.5			7.5	316				4.3	4.3
Sun-08	7.5			7.5	292				4.3	4.3
Mon-09	7.6			7.5	388				4.4	4.4
Tue-10	7.5			7.4	372				4.4	4.4
Wed-11	7.6			7.6	332				5.3	5.3
Thu-12	7.5	7.6		7.4	336	55			5.4	5.4
Fri-13	7.6			7.4	348				5.6	5.6
Sat-14	7.6	7.7		7.5	320	95			6.0	6.0
Sun-15	7.4	7.6		7.4	284	71			6.2	6.2
Mon-16	7.5	7.8		7.5	460	74			5.5	5.5
Tue-17	7.6			7.5	304				5.5	5.5
Wed-18	7.5			7.6	304				6.1	6.1
Thu-19	7.7			7.5	340				6.2	6.2
Fri-20	7.5			7.5	312				6.8	6.8
Sat-21	7.5			7.6	292				6.0	6.0
Sun-22	7.6	7.6		7.6	364	98			6.0	6.0
Mon-23	7.5	7.7		7.6	396	54			6.4	6.4
Tue-24	7.6			7.5	420				5.9	5.9
Wed-25	7.6			7.5	348				6.9	6.9
Thu-26	7.4	7.5		7.5	348	61			7.0	7.0
Fri-27	7.5			7.5	320				5.8	5.8
Sat-28	7.5			7.4	276				4.9	4.9
Sun-29	7.5			7.5	300				5.9	5.9
Mon-30	7.6			7.5	300				6.2	6.2
Average	7.5	7.7	---	7.5	346	72	---	---	5.4	5.4
Minimum	7.4	7.5	---	7.4	276	44	---	---	3.5	3.5
Maximum	7.7	7.8	---	7.6	552	98	---	---	7.0	7.0
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L) RAW	BOD_5 OUTFALL 30	BOD_5 OUTFALL 20	BOD_5 EPEPS	$cBOD_5$ OUTFALL 10 FEC	$cBOD_5$ OUTFALL 10 FE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Sun-01	290				2	2	8.85				0.37	0.37
Mon-02	344	236			3	3	8.96	7.00			0.34	0.34
Tue-03	226	96			3	3	8.13	5.06			0.38	0.38
Wed-04	309				3	3	8.21				0.34	0.34
Thu-05	299				3	3	7.75				0.26	0.26
Fri-06	287				4	4	8.05				0.35	0.35
Sat-07	252				3	3	8.26				0.36	0.36
Sun-08	306				3	3	7.99				0.41	0.41
Mon-09	294				3	3	7.46				0.30	0.30
Tue-10	262				3	3	7.83				0.33	0.33
Wed-11	292				3	3	7.32				0.30	0.30
Thu-12	236	109			3	3	6.89	6.79			0.37	0.37
Fri-13	294				3	3	7.20				0.41	0.41
Sat-14	301	169			3	3	7.50	7.59			0.50	0.50
Sun-15	306	160			3	3	8.00	6.78			0.40	0.40
Mon-16	257	154			4	4	8.46	6.06			0.37	0.37
Tue-17	204				3	3	8.64				0.38	0.38
Wed-18	281				4	4	8.37				0.43	0.43
Thu-19	315				4	4	8.72				0.42	0.42
Fri-20	300				4	4	8.48				0.40	0.40
Sat-21	316				4	4	9.90				0.41	0.41
Sun-22	322	158			4	4	8.96	6.33			0.43	0.43
Mon-23	302	94			3	3	8.42	3.89			0.39	0.39
Tue-24	299				4	4	9.55				0.42	0.42
Wed-25	321				4	4	9.68				1.04	1.04
Thu-26	239	71			3	3	6.39	4.06			0.65	0.65
Fri-27	270				3	3	9.59				0.45	0.45
Sat-28	269				3	3	9.38				0.41	0.41
Sun-29	301				4	4	9.02				0.42	0.42
Mon-30	294				4	4	9.33				0.47	0.47
Average	286	139	---	---	3.3	3.3	8.38	5.95	---	---	0.42	0.42
Minimum	204	71	---	---	2	2	6.39	3.89	---	---	0.26	0.26
Maximum	344	236	---	---	4	4	9.90	7.59	---	---	1.04	1.04
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 (mg/L) 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
Sun-01	37.6				1.02	1.02				61.6			3.0
Mon-02	35.2	42.4			1.46	1.46				59.9	53.7		3.3
Tue-03	35.9	32.6			1.08	1.08				62.4	46.9		3.1
Wed-04	40.6				0.88	0.88				61.8			2.8
Thu-05	41.1				0.93	0.93				60.6			2.7
Fri-06	39.2				0.93	0.93				61.2			2.8
Sat-07	38.5				1.11	1.11				61.4			3.1
Sun-08	35.5				1.73	1.73				61.3			3.8
Mon-09	39.1				1.65	1.65				57.0			3.2
Tue-10	40.4				1.00	1.00				56.1			2.8
Wed-11	37.9				0.82	0.82				50.9			2.2
Thu-12	32.6	41.4			0.79	0.79				46.6	47.7		2.7
Fri-13	39.1				0.74	0.74				52.9			2.4
Sat-14	37.7	40.5			2.00	2.00				57.7	58.0		3.7
Sun-15	38.4	40.5			2.51	2.51				61.4	51.5		4.6
Mon-16	40.2	35.1			2.51	2.51				59.8	50.4		4.6
Tue-17	41.1				2.64	2.64				67.3			5.0
Wed-18	41.9				3.27	3.27				64.5			6.1
Thu-19	44.3				3.26	3.26				70.3			6.0
Fri-20	42.1				2.64	2.64				66.6			5.2
Sat-21	44.4				2.54	2.54				73.0			4.9
Sun-22	31.5	38.4			2.93	2.93				66.9	57.7		5.4
Mon-23	40.0	34.2			2.03	2.03				62.0	44.1		4.3
Tue-24	41.9				1.95	1.95				69.3			4.1
Wed-25	38.8				1.58	1.58				67.9			3.9
Thu-26	23.4	21.3			0.96	0.96				44.6	31.2		3.1
Fri-27	38.0				1.65	1.65				65.3			3.9
Sat-28	39.9				2.33	2.33				67.5			4.6
Sun-29	31.7				3.76	3.76				66.3			6.0
Mon-30	39.3				5.53	5.53				67.5			7.5
Average	38.2	36.3	---	---	1.94	1.94	---	---	---	61.7	49.0	---	4.0
Minimum	23.4	21.3	---	---	0.74	0.74	---	---	---	44.6	31.2	---	2.2
Maximum	44.4	42.4	---	---	5.53	5.53	---	---	---	73.0	58.0	---	7.5
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
Sun-01				13.3	84			94				9
Mon-02		0.09		13.3	83	83		91		4.8		170
Tue-03		0.03		12.0	89	75		89		2.1		16
Wed-04	< 0.01			13.1	88			99				25
Thu-05				14.2	90			101				17
Fri-06				13.4	87			101				55
Sat-07				12.9	83			100				28
Sun-08				12.4	87			92				13
Mon-09				12.0	108			88				16
Tue-10				13.6	101			99	4.0			7
Wed-11	< 0.01			14.2	96			98				10
Thu-12		0.03		12.9	87	86		93	3.6	2.3		5
Fri-13				13.9	92			93				10
Sat-14		0.03		13.5	84	94		99		4.4		9
Sun-15		0.03		11.6	77	78		88		3.1		10
Mon-16		0.02		11.5	83	77		90		2.8		9
Tue-17				11.8	83			99				10
Wed-18	< 0.01			10.6	84			99				15
Thu-19				11.4	86			102				38
Fri-20				12.1	77			100				19
Sat-21				13.1	82			99				12
Sun-22		0.05		12.8	70	79		93		2.8		10
Mon-23		0.02		11.3	81	76		86		2.0		10
Tue-24				12.1	82			95				20
Wed-25	< 0.01			13.5	82			96				27
Thu-26		0.12		9.7	50	52		82		4.5		27
Fri-27				12.3	82			80				14
Sat-28				13.3	87			90				16
Sun-29				13.2	80			88				12
Mon-30				11.3	85			91				13
Average	< 0.01	0.05	---	12.5	84	78	---	94			---	
Minimum	< 0.01	0.02	---	9.7	50	52	---	80	3.6	2.0	---	5
Maximum	< 0.01	0.12	---	14.2	108	94	---	102	4.0	4.8	---	170
GeoMean	---	---	---	---	---	---	---	---	3.8	3.0	---	16
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
32	32	100%	411	411	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

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

Jeff Charrois PhD
Senior Manager, Analytical Operations