PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
September 2023

Digested Sludge: Total Monthly Volume (ML)	73.8

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 EPE/PS	Effluent UV Disinfected OUTFALL 10 FEC	Effluent UV Disinfected OUTFALL 10 FE
Fri-01	363.3	0.0	308.5	0.0	0.0	12.2	0.0	296.3	296.3
Sat-02	357.4	0.0	289.2	0.0	0.0	11.7	0.0	277.5	277.5
Sun-03	355.8	0.0	282.1	0.0	0.0	12.0	0.0	270.1	270.1
Mon-04	482.3	0.0	284.1	0.0	0.0	11.8	0.0	272.3	272.3
Tue-05	977.8	0.0	358.3	55.2	0.0	10.9	0.0	290.2	290.2
Wed-06	468.8	0.0	325.9	5.6	0.0	10.9	0.0	309.4	309.4
Thu-07	364.7	0.0	310.2	0.0	0.0	11.2	0.0	299.0	299.0
Fri-08	378.9	0.0	291.4	0.0	0.0	11.1	0.0	280.3	280.3
Sat-09	362.7	0.0	284.4	0.0	0.0	10.9	0.0	273.5	273.5
Sun-10	370.8	0.0	283.7	0.0	0.0	10.7	0.0	273.0	273.0
Mon-11	366.8	0.0	292.6	0.0	0.0	10.9	0.0	281.7	281.7
Tue-12	359.5	0.0	290.7	0.0	0.0	10.8	0.0	279.9	279.9
Wed-13	425.8	0.0	313.7	0.0	0.0	11.1	0.0	302.6	302.6
Thu-14	355.4	0.0	287.4	0.0	0.0	11.1	0.0	276.3	276.3
Fri-15	339.9	0.0	284.3	0.0	0.0	11.9	0.0	272.4	272.4
Sat-16	363.7	0.0	277.1	0.0	0.0	11.8	0.0	265.3	265.3
Sun-17	373.0	0.0	276.9	0.0	0.0	11.5	0.0	265.4	265.4
Mon-18	380.9	0.0	287.2	0.0	0.0	12.0	0.0	275.2	275.2
Tue-19	358.9	0.0	279.0	0.0	0.0	11.6	0.0	267.4	267.4
Wed-20	350.4	0.0	278.9	0.0	0.0	11.1	0.0	267.8	267.8
Thu-21	355.2	0.0	281.0	0.0	0.0	11.2	0.0	269.8	269.8
Fri-22	348.7	0.0	283.8	0.0	0.0	11.4	0.0	272.4	272.4
Sat-23	362.3	0.0	275.7	0.0	0.0	10.8	0.0	264.9	264.9
Sun-24	361.7	0.0	274.9	0.0	0.0	10.7	0.0	264.2	264.2
Mon-25	367.8	0.0	283.2	0.0	0.0	11.0	0.0	272.2	272.2
Tue-26	349.8	0.0	277.9	0.0	0.0	10.9	0.0	267.0	267.0
Wed-27	349.3	0.0	281.1	0.0	0.0	11.5	0.0	269.6	269.6
Thu-28	457.9	0.0	284.7	0.6	0.0	11.3	0.0	272.8	272.8
Fri-29	490.7	0.0	311.4	8.7	0.0	11.2	0.0	291.5	291.5
Sat-30	353.9	0.0	276.4	0.0	0.0	11.3	0.0	265.1	265.1
Average	398.5	0.0	290.5	2.3	0.0	11.3	0.0	276.8	276.8
Minimum	339.9	0.0	274.9	0.0	0.0	10.7	0.0	264.2	264.2
Maximum	977.8	0.0	356.3	55.2	0.0	12.2	0.0	309.4	309.4
Geo/Mean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,714	70	0	339	0	8,305	8,305

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 (mg/L) OUTFALL 30	TSS (mg/L) OUTFALL 20	TSS (mg/L) EPE/PS	TSS (mg/L) OUTFALL 10 FEC	TSS (mg/L) OUTFALL 10 FE
Fri-01	7.4			7.6	244				2.9	2.9
Sat-02	7.5			7.6	283				3.2	3.2
Sun-03	7.6			7.7	288				3.1	3.1
Mon-04	7.6			7.6	277				3.2	3.2
Tue-05	7.4	7.6		7.6	440	45			3.8	3.8
Wed-06	7.5	7.5		7.7	271	49			3.6	3.6
Thu-07	7.5			7.6	294				3.2	3.2
Fri-08	7.6			7.6	308				2.8	2.8
Sat-09	7.4			7.5	284				2.6	2.6
Sun-10	7.6			7.7	286				2.9	2.9
Mon-11	7.5			7.7	300				4.5	4.5
Tue-12	7.4			7.7	284				4.3	4.3
Wed-13	7.5			7.6	280				3.6	3.6
Thu-14	7.5			7.7	272				4.1	4.1
Fri-15	7.4			7.7	251				4.4	4.4
Sat-16	7.5			7.6	276				4.4	4.4
Sun-17	7.4			7.6	247				4.9	4.9
Mon-18	7.5			7.5	236				8.8	8.8
Tue-19	7.5			7.6	263				3.2	3.2
Wed-20	7.5			7.6	272				3.0	3.0
Thu-21	7.5			7.6	280				3.3	3.3
Fri-22	7.4			7.7	292				3.5	3.5
Sat-23	7.5			7.7	268				3.7	3.7
Sun-24	7.5			7.6	260				3.5	3.5
Mon-25	7.6			7.7	289				4.0	4.0
Tue-26	7.5			7.6	326				3.2	3.2
Wed-27	7.5			7.6	376				2.9	2.9
Thu-28	7.5	6.7		7.6	380	81			3.7	3.7
Fri-29	7.5	7.8		7.6	268	126			3.2	3.2
Sat-30	7.5			7.5	268				3.6	3.6
Average	7.5	7.4	---	7.6	289	75	---	---	3.7	3.7
Minimum	7.4	6.7	---	7.5	236	45	---	---	2.6	2.6
Maximum	7.6	7.8	---	7.7	440	126	---	---	8.8	8.8
Geo/Mean	---	---	---	---	---	---	---	---	---	---
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 EPE/PS BOD_5	OUTFALL 10 FEC $cBOD_5$	OUTFALL 10 FE $cBOD_5$
Fri-01	329				2	2
Sat-02	186				< 2	< 2
Sun-03	265				< 2	< 2
Mon-04	286				< 2	< 2
Tue-05	327	196			2	2
Wed-06	253	75			2	2
Thu-07	368				3	3
Fri-08	268				< 2	< 2
Sat-09	229				2	2
Sun-10	278				2	2
Mon-11	344				2	2
Tue-12	284				2	2
Wed-13	270				< 2	< 2
Thu-14	282				2	2
Fri-15	355				3	3
Sat-16	293				3	3
Sun-17	256				3	3
Mon-18	248				3	3
Tue-19	269				2	2
Wed-20	258				2	2
Thu-21	311				3	3
Fri-22	290				3	3
Sat-23	292				3	3
Sun-24	260				3	3
Mon-25	321				2	2
Tue-26	307				2	2
Wed-27	259				2	2
Thu-28	299	173			2	2
Fri-29	335	172			2	2
Sat-30	272				2	2
Average	286	154	---	---	2.3	2.3
Minimum	186	75	---	---	< 2	< 2
Maximum	368	196	---	---	3	3
Geo/Mean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TP (mg/L) RAW	TP (mg/L) OUTFALL 30	TP (mg/L) OUTFALL 20	TP (mg/L) EPE/PS	TP (mg/L) OUTFALL 10 FEC	TP (mg/L) OUTFALL 10 FE
Fri-01	6.94				0.24	0.24
Sat-02	7.12				0.24	0.24
Sun-03	7.05				0.22	0.22
Mon-04	6.62				0.23	0.23
Tue-05	6.30	6.05			0.24	0.24
Wed-06	7.33	3.82			0.23	0.23
Thu-07	7.32				0.24	0.24
Fri-08	8.80				0.24	0.24
Sat-09	6.66				0.22	0.22
Sun-10	7.81				0.22	0.22
Mon-11	8.32				0.27	0.27
Tue-12	8.19				0.31	0.31
Wed-13	6.69				0.26	0.26
Thu-14	7.26				0.32	0.32
Fri-15	7.41				0.29	0.29
Sat-16	7.41				0.29	0.29
Sun-17	8.19				0.32	0.32
Mon-18	8.39				0.32	0.32
Tue-19	8.39				0.30	0.30
Wed-20	7.71				0.32	0.32
Thu-21	8.45				0.45	0.45
Fri-22	7.47				0.26	0.26
Sat-23	7.66				0.27	0.27
Sun-24	7.73				0.23	0.23
Mon-25	7.64				0.23	0.23
Tue-26	7.94				0.23	0.23
Wed-27	7.57				0.25	0.25
Thu-28	8.00	9.19			0.24	0.24
Fri-29	6.96	9.06			0.28	0.28
Sat-30	8.14				0.29	0.29
Average	7.56	7.03	---	---	0.27	0.27
Minimum	6.30	3.82	---	---	0.22	0.22
Maximum	8.80	9.19	---	---	0.45	0.45
Geo/Mean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N (mg/L) OUTFALL 30	NH3-N (mg/L) OUTFALL 20	NH3-N (mg/L) EPE/PS	NH3-N (mg/L) OUTFALL 10 FEC	NH3-N (mg/L) OUTFALL 10 FE	un-ionized NH3-N (mg/L) OUTFAL 30	un-ionized NH3-N (mg/L) OUTFAL 20	un-ionized NH3-N (mg/L) OUTFAL 10
Fri-01	32.9				0.69	0.69			
Sat-02	32.3				0.62	0.62			
Sun-03	33.0				0.55	0.55			
Mon-04	28.7				1.05	1.05			
Tue-05	28.1	30.0			0.64	0.64			
Wed-06	30.7	19.2			0.59	0.59			
Thu-07	32.6				1.07	1.07			
Fri-08	30.8				0.87	0.87			
Sat-09	34.4				0.94	0.94			
Sun-10	35.5				0.97	0.97			
Mon-11	31.9				0.68	0.68			
Tue-12	36.0				0.84	0.84			
Wed-13	33.5				1.01	1.01			
Thu-14	36.1				1.13	1.13			
Fri-15	36.5				0.88	0.88			
Sat-16	36.5				0.84	0.84			
Sun-17	40.5				0.76	0.76			
Mon-18	39.4				1.21	1.21			
Tue-19	38.5				1.52	1.52			
Wed-20	31.9				0.83	0.83			
Thu-21	37.6				0.59	0.59			
Fri-22	38.1				1.75	1.75			
Sat-23	37.8				1.76	1.76			
Sun-24	39.5				1.59	1.59			
Mon-25	37.6				1.48	1.48			
Tue-26	37.8				1.71	1.71			
Wed-27	38.7				1.86	1.86			
Thu-28	36.7	32.0			1.90	1.90			
Fri-29	34.8	38.5			2.40	2.40			
Sat-30	39.8				3.00	3.00			
Average	35.3	29.9	---	---	1.19	1.19	---	---	---
Minimum	28.1	19.2	---	---	0.55	0.55	---	---	---
Maximum	40.5	38.5	---	---	3.00	3.00	---	---	---
Geo/Mean	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---

DATE	TKN (mg/L) RAW	TKN (mg/L) OUTFALL 30	TKN (mg/L) OUTFALL 20	TKN (mg/L) OUTFALL 10 FEC	NO_3+NO_2 (mg/L) RAW	NO_3+NO_2 (mg/L) OUTFALL 30	NO_3+NO_2 (mg/L) OUTFALL 20	NO_3+NO_2 (mg/L) OUTFALL 10 FEC	Chlorids (mg/L) RAW	Chlorids (mg/L) OUTFALL 30	Chlorids (mg/L) OUTFALL 20	Chlorids (mg/L) OUTFALL 10 FEC
Fri-01	44.4			2.0				11.0	88.1			98.4
Sat-02	41.9			1.8				10.4	87.4			98.1
Sun-03	43.7			1.7				11.3	87.1			96.4
Mon-04	39.2			1.9				12.3	83.8			97.2
Tue-05	40.5	34.7		1.8		0.14		12.5	84.3	81.0		97.6
Wed-06	45.4	25.5		1.7	< 0.01	0.16		9.08	87.0	60.0		89.8
Thu-07	44.3			2.2				11.5	84.0			91.5
Fri-08	54.4			2.0				11.6	87.7			95.2
Sat-09	45.2			2.0				11.3	86.7			97.1
Sun-10	48.3			2.1				11.9	87.0			93.7
Mon-11	53.1			1.9				10.8	92.2			90.0
Tue-12	51.0			2.1				10.4	88.1			99.5
Wed-13	42.8			2.1	< 0.01			10.9	83.2			106
Thu-14	46.9			2.4				10.8	83.3			99.5
Fri-15	46.5			1.9				10.8	83.5			92.6
Sat-16	47.0			2.3				10.3	79.3			96.4
Sun-17	49.3			2.0				11.2	81.6			88.7
Mon-18	51.9			2.5				10.2	90.1			87.6
Tue-19	51.4			2.5				11.4	84.5			91.1
Wed-20	47.0			1.8	0.25			12.4	83.6			89.5
Thu-21	47.0			1.8				10.8	83.9			94.7
Fri-22	49.4			2.7				8.67	86.1			90.1
Sat-23	45.8			2.7				9.78	77.9			93.2
Sun-24	47.5			2.6				11.0	81.1			88.9
Mon-25	47.1			2.6				11.3	84.3			87.4
Tue-26	50.5			2.5				11.9	79.8			94.1
Wed-27	47.1			2.8	< 0.01			12.5	82.1			92.3
Thu-28	46.7	45.6		2.8		0.02		12.6	78.7	86.9		89.2
Fri-29	43.8	44.5		3.1		0.03		11.6	77.3	82.8		83.9
Sat-30	50.1			4.3				12.1	80.0			81.3
Average	47.0	37.6	---	2.3	0.07	0.09	---	11.14	84.2	77.7	---	93.0
Minimum	39.2	25.5	---	1.7	< 0.01	0.02	---	8.67	77.3	60.0	---	81.3
Maximum	54.4	45.6	---	4.3	0.25	0.16	---	12.6	92.2	86.9	---	106
Geo/Mean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	*E. coli* (Counts/100 mL) RAW X10^6	*E. coli* (Counts/100 mL) OUTFALL 30 X10^6	*E. coli* (Counts/100 mL) OUTFALL 20 X10^6	*E. coli* (Counts/100 mL) OUTFALL 10 FEC
Fri-01				8
Sat-02				4
Sun-03				6
Mon-04				4
Tue-05		1.9		7
Wed-06		1.7		2
Thu-07				9
Fri-08				9
Sat-09				4
Sun-10				5
Mon-11				8
Tue-12				7
Wed-13				2
Thu-14	6.0			5
Fri-15				9
Sat-16				8
Sun-17				8
Mon-18				6
Tue-19				5
Wed-20				8
Thu-21				4
Fri-22				7
Sat-23				5
Sun-24				3
Mon-25				2
Tue-26				5
Wed-27	3.1			6
Thu-28		6.0		4
Fri-29		2.5		9
Sat-30				6
Average				
Minimum	3.1	1.7	---	2
Maximum	6.0	6.0	---	9
Geo/Mean	4.3	2.6	---	5.4
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
9	9	100%	486	486	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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