PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
October 2023

Digested Sludge: Total Monthly Volume (ML)	72.9

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	368.9	0.0	278.2	0.0	0.0	11.3	0.0	266.9	266.9
Mon-02	360.1	0.0	283.6	0.0	0.0	11.8	0.0	271.8	271.8
Tue-03	353.8	0.0	278.0	0.0	0.0	11.7	0.0	266.3	266.3
Wed-04	381.1	0.0	291.4	0.0	0.0	10.8	0.0	280.6	280.6
Thu-05	417.2	0.0	274.2	0.0	0.0	11.3	0.0	262.9	262.9
Fri-06	407.4	0.0	274.9	0.0	0.0	11.0	0.0	263.9	263.9
Sat-07	351.8	0.0	261.4	0.0	0.0	11.1	0.0	250.3	250.3
Sun-08	347.1	0.0	261.5	0.0	0.0	11.3	0.0	250.2	250.2
Mon-09	361.1	0.0	273.1	0.0	0.0	11.7	0.0	261.4	261.4
Tue-10	353.0	0.0	277.0	0.0	0.0	12.0	0.0	265.0	265.0
Wed-11	337.3	0.0	268.3	0.0	0.0	12.1	0.0	256.2	256.2
Thu-12	334.8	0.0	268.1	0.0	0.0	12.0	0.0	256.1	256.1
Fri-13	332.1	0.0	267.3	0.0	0.0	12.0	0.0	255.3	255.3
Sat-14	349.3	0.0	261.2	0.0	0.0	11.6	0.0	249.6	249.6
Sun-15	433.0	0.0	272.0	0.0	0.0	11.7	0.0	260.3	260.3
Mon-16	446.4	0.0	275.1	0.0	0.0	11.8	0.0	263.3	263.3
Tue-17	341.8	0.0	270.9	0.0	0.0	11.9	0.0	259.0	259.0
Wed-18	329.9	0.0	270.6	0.0	0.0	12.4	0.0	258.2	258.2
Thu-19	326.3	0.0	268.7	0.0	0.0	12.3	0.0	256.4	256.4
Fri-20	327.8	0.0	269.9	0.0	0.0	12.8	0.0	257.1	257.1
Sat-21	376.1	0.0	259.7	0.0	0.0	11.4	0.0	248.3	248.3
Sun-22	367.0	0.0	262.2	0.0	0.0	13.0	0.0	249.2	249.2
Mon-23	338.3	0.0	272.4	0.0	0.0	12.8	0.0	259.6	259.6
Tue-24	342.2	0.0	270.6	0.0	0.0	11.5	0.0	259.1	259.1
Wed-25	350.3	0.0	271.3	0.0	0.0	11.5	0.0	259.8	259.8
Thu-26	343.5	0.0	271.9	0.0	0.0	11.1	0.0	260.8	260.8
Fri-27	333.8	0.0	275.4	0.0	0.0	10.8	0.0	264.6	264.6
Sat-28	362.9	0.0	273.4	0.0	0.0	11.1	0.0	262.3	262.3
Sun-29	379.4	0.0	277.8	0.0	0.0	11.7	0.0	266.1	266.1
Mon-30	356.6	0.0	283.3	0.0	0.0	11.6	0.0	271.7	271.7
Tue-31	338.4	0.0	273.6	0.0	0.0	11.4	0.0	262.2	262.2
Average	359.6	0.0	272.2	0.0	0.0	11.7	0.0	260.5	260.5
Minimum	326.3	0.0	259.7	0.0	0.0	10.8	0.0	248.3	248.3
Maximum	446.4	0.0	291.4	0.0	0.0	13.0	0.0	280.6	280.6
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,437	0	0	363	0	8,075	8,075

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) EPEPS	TSS (mg/L) OUTFALL 10 FEC	TSS (mg/L) OUTFALL 10 FE
Sun-01	7.4			7.6	308				4.1	4.1
Mon-02	7.5			7.6	312				2.8	2.8
Tue-03	7.5			7.6	336				3.3	3.3
Wed-04	7.4			7.5	306				3.3	3.3
Thu-05	7.6			7.6	316				3.5	3.5
Fri-06	7.4			7.6	284				3.0	3.0
Sat-07	7.4			7.5	296				3.1	3.1
Sun-08	7.5			7.5	296				3.6	3.6
Mon-09	7.6			7.6	310				4.0	4.0
Tue-10	7.5			7.7	317				4.6	4.6
Wed-11	7.5			7.6	348				3.2	3.2
Thu-12	7.5			7.8	356				3.2	3.2
Fri-13	7.5			7.7	320				3.5	3.5
Sat-14	7.4			7.5	328				3.2	3.2
Sun-15	7.6			7.6	309				4.3	4.3
Mon-16	7.4			7.7	340				4.2	4.2
Tue-17	7.5			7.7	317				5.0	5.0
Wed-18	7.5			7.6	276				4.7	4.7
Thu-19	7.4			7.6	320				3.4	3.4
Fri-20	7.4			7.6	287				3.6	3.6
Sat-21	7.5			7.5	292				3.6	3.6
Sun-22	7.5			7.6	268				3.9	3.9
Mon-23	7.5			7.6	280				3.7	3.7
Tue-24	7.5			7.5	306				3.8	3.8
Wed-25	7.4			7.5	328				3.2	3.2
Thu-26	7.3			7.4	344				3.2	3.2
Fri-27	7.4			7.3	320				3.7	3.7
Sat-28	7.5			7.5	328				4.7	4.7
Sun-29	7.4			7.3	313				3.8	3.8
Mon-30	7.4			7.5	304				4.5	4.5
Tue-31	7.5			7.5	312				3.9	3.9
Average	7.5	---	---	7.6	312	---	---	---	3.7	3.7
Minimum	7.3	---	---	7.3	268	---	---	---	2.8	2.8
Maximum	7.6	---	---	7.8	356	---	---	---	5.0	5.0
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	321				2	2	7.94				0.27	0.27
Mon-02	260				3	3	8.31				0.25	0.25
Tue-03	265				< 2	2	8.87				0.26	0.26
Wed-04	360				2	2	7.59				0.25	0.25
Thu-05	296				3	3	7.78				0.26	0.26
Fri-06	315				3	3	8.07				0.28	0.28
Sat-07	313				2	2	8.19				0.27	0.27
Sun-08	296				2	2	7.39				0.24	0.24
Mon-09	310				3	3	7.57				0.26	0.26
Tue-10	305				3	3	8.01				0.32	0.32
Wed-11	323				3	3	8.03				0.29	0.29
Thu-12	337				2	2	8.79				0.28	0.28
Fri-13	306				3	3	7.94				0.31	0.31
Sat-14	361				2	2	8.97				0.40	0.40
Sun-15	336				3	3	9.26				0.48	0.48
Mon-16	303				3	3	7.40				0.27	0.27
Tue-17	290				2	2	7.68				0.31	0.31
Wed-18	293				2	2	7.61				0.30	0.30
Thu-19	283				2	2	8.08				0.29	0.29
Fri-20	313				3	3	8.03				0.30	0.30
Sat-21	319				3	3	7.98				0.28	0.28
Sun-22	312				3	3	8.25				0.28	0.28
Mon-23	325				3	3	8.11				0.30	0.30
Tue-24	312				3	3	8.22				0.28	0.28
Wed-25	303				2	2	8.27				0.27	0.27
Thu-26	275				3	3	8.30				0.30	0.30
Fri-27	317				3	3	8.54				0.32	0.32
Sat-28	332				3	3	8.78				0.32	0.32
Sun-29	309				3	3	8.37				0.33	0.33
Mon-30	339				3	3	8.29				0.30	0.30
Tue-31	307				3	3	8.89				0.30	0.30
Average	311	---	---	---	2.6	2.6	8.18	---	---	---	0.30	0.30
Minimum	260	---	---	---	< 2	2	7.39	---	---	---	0.24	0.24
Maximum	361	---	---	---	3	3	9.26	---	---	---	0.48	0.48
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	un-ionized NH3-N (mg/L) OUTFAL 30	un-ionized NH3-N OUTFAL 20	un-ionized NH3-N OUTFAL 10	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Sun-01	40.5				2.86	2.86				53.0			4.0
Mon-02	38.1				2.62	2.62				53.3			3.7
Tue-03	41.7				2.08	2.08				57.4			3.0
Wed-04	35.3				0.90	0.90				45.3			2.0
Thu-05	38.4				0.62	0.62				49.1			1.8
Fri-06	38.3				0.56	0.56				49.0			1.7
Sat-07	37.4				0.65	0.65				49.8			1.7
Sun-08	38.3				0.66	0.66				46.7			1.7
Mon-09	39.1				1.60	1.60				49.7			2.5
Tue-10	37.8				1.86	1.86				48.5			2.8
Wed-11	37.6				1.12	1.12				50.5			2.0
Thu-12	38.3				1.50	1.50				50.1			2.6
Fri-13	38.0				1.68	1.68				46.4			2.5
Sat-14	36.9				1.83	1.83				54.2			2.9
Sun-15	34.8				1.70	1.70				56.7			2.8
Mon-16	36.9				1.30	1.30				46.0			2.2
Tue-17	37.8				0.77	0.77				48.7			2.0
Wed-18	37.9				0.71	0.71				48.4			1.9
Thu-19	37.4				0.96	0.96				52.4			2.0
Fri-20	37.6				0.78	0.78				49.5			2.2
Sat-21	39.1				0.82	0.82				50.4			1.9
Sun-22	39.4				1.38	1.38				50.4			2.6
Mon-23	37.2				1.15	1.15				50.7			2.4
Tue-24	37.0				0.70	0.70				50.2			1.9
Wed-25	37.8				1.38	1.38				49.8			2.7
Thu-26	38.7				3.41	3.41				52.8			4.4
Fri-27	39.0				3.42	3.42				51.3			4.5
Sat-28	39.3				3.39	3.39				51.4			4.6
Sun-29	39.0				3.40	3.40				50.9			4.4
Mon-30	36.4				2.42	2.42				51.0			3.4
Tue-31	36.6				1.31	1.31				51.3			2.6
Average	38.0	---	---	---	1.60	1.60	---	---	---	50.5	---	---	2.7
Minimum	34.8	---	---	---	0.56	0.56	---	---	---	45.3	---	---	1.7
Maximum	41.7	---	---	---	3.42	3.42	---	---	---	57.4	---	---	4.6
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				12.3	78.0			80.7				4
Mon-02				11.2	85.2			75.9				8
Tue-03				11.8	85.2			85.2				4
Wed-04	< 0.01			11.0	83.2			89.6				8
Thu-05				11.2	81.9			88.1				10
Fri-06				10.6	83.9			89.5				5
Sat-07				10.1	76.8			88.2				4
Sun-08				10.0	82.3			80.8				5
Mon-09				10.5	79.2			86.7				2
Tue-10				8.58	83.7			88.8				8
Wed-11	< 0.01			9.47	84.5			91.2				4
Thu-12				8.90	86.4			87.5				4
Fri-13				10.2	83.2			89.4				3
Sat-14				10.8	80.5			87.7				3
Sun-15				12.3	80.2			82.6				3
Mon-16				10.8	79.5			82.3				5
Tue-17				9.66	83.5			88.4				2
Wed-18	< 0.01			10.1	80.0			85.4				5
Thu-19				10.1	81.0			85.5				13
Fri-20				10.0	81.5			82.2				8
Sat-21				10.4	76.4			89.9				3
Sun-22				10.7	75.7			81.6				4
Mon-23				9.50	92.1			79.8	2.6			5
Tue-24				8.60	83.6			96.0				9
Wed-25	< 0.01			9.07	85.4			89.6	3.4			9
Thu-26				12.6	85.1			87.5				6
Fri-27				13.0	86.0			88.3				7
Sat-28				12.1	83.8			91.1				5
Sun-29				13.5	79.3			85.7				5
Mon-30				12.5	84.3			81.9				8
Tue-31				11.4	91.8			86.8				4
Average	< 0.01	---	---	10.7	82.7	---	---	86.3				
Minimum	< 0.01	---	---	8.58	75.7	---	---	75.9	2.6	---	---	2
Maximum	< 0.01	---	---	13.5	92.1	---	---	96.0	3.4	---	---	13
GeoMean	---	---	---	---	---	---	---	---	3.0	---	---	5
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
0	0	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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