PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
October 2021

Digested Sludge: Total Monthly Volume (ML)	72.3

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
Fri-01	318.8	0.0	256.0	0.0	0.0	10.7	0.0	245.3	245.3
Sat-02	352.9	0.0	243.8	0.0	0.0	10.8	0.0	233.0	233.0
Sun-03	460.0	0.0	247.1	0.0	0.0	11.6	0.0	235.5	235.5
Mon-04	351.2	0.0	263.1	0.0	0.0	11.4	0.0	251.7	251.7
Tue-05	349.8	0.0	254.2	0.0	0.0	11.2	0.0	243.0	243.0
Wed-06	315.7	0.0	250.1	0.0	0.0	11.6	0.0	238.5	238.5
Thu-07	338.8	0.0	249.9	0.0	0.0	11.1	0.0	238.8	238.8
Fri-08	331.3	0.0	252.5	0.0	0.0	11.1	0.0	241.4	241.4
Sat-09	330.9	0.0	242.5	0.0	0.0	11.1	0.0	231.4	231.4
Sun-10	345.8	0.0	243.3	0.0	0.0	11.0	0.0	232.3	232.3
Mon-11	410.5	0.0	249.9	0.0	0.0	11.0	0.0	238.9	238.9
Tue-12	406.0	0.0	247.8	0.0	0.0	10.7	0.0	237.1	237.1
Wed-13	344.3	0.0	246.3	0.0	0.0	10.6	0.0	235.7	235.7
Thu-14	337.2	0.0	245.9	0.0	0.0	10.9	0.0	235.0	235.0
Fri-15	335.1	0.0	246.6	0.0	0.0	11.9	0.0	234.7	234.7
Sat-16	380.1	0.0	241.2	0.0	0.0	12.0	0.0	229.2	229.2
Sun-17	353.5	0.0	243.8	0.0	0.0	12.5	0.0	231.3	231.3
Mon-18	334.8	0.0	245.5	0.0	0.0	12.9	0.0	232.6	232.6
Tue-19	334.7	0.0	243.8	0.0	0.0	6.7	0.0	237.1	237.1
Wed-20	330.4	0.0	245.9	0.0	0.0	4.1	0.0	241.8	241.8
Thu-21	336.7	0.0	243.6	0.0	0.0	6.6	0.0	237.0	237.0
Fri-22	330.9	0.0	245.3	0.0	0.0	6.3	0.0	239.0	239.0
Sat-23	825.5	0.0	480.0	185.9	0.0	10.0	0.0	284.1	284.1
Sun-24	436.9	0.0	296.1	3.1	0.0	10.8	0.0	282.2	282.2
Mon-25	360.5	0.0	261.1	0.0	0.0	7.2	0.0	253.9	253.9
Tue-26	341.0	0.0	251.6	0.0	0.0	7.4	0.0	244.2	244.2
Wed-27	337.5	0.0	246.5	0.0	0.0	6.9	0.0	239.6	239.6
Thu-28	335.1	0.0	247.0	0.0	0.0	8.8	0.0	238.2	238.2
Fri-29	335.5	0.0	249.2	0.0	0.0	11.4	0.0	237.8	237.8
Sat-30	360.6	0.0	246.6	0.0	0.0	11.3	0.0	235.3	235.3
Sun 31	360.2	0.0	246.5	0.0	0.0	11.4	0.0	235.1	235.1
Average	368.5	0.0	257.2	6.1	0.0	10.1	0.0	241.0	241.0
Minimum	315.7	0.0	241.2	0.0	0.0	4.1	0.0	229.2	229.2
Maximum	825.5	0.0	480.0	185.9	0.0	12.9	0.0	284.1	284.1
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	7,973	189	0	313	0	7,471	7,471

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
Fri-01	7.5			7.3	500				6.6	6.6
Sat-02	7.5			7.2	340				7.5	7.5
Sun-03	7.5			7.3	332				4.7	4.7
Mon-04	7.4			7.4	524				4.4	4.4
Tue-05	7.5			7.4	496				7.7	7.7
Wed-06	7.5			7.4	364				7.6	7.6
Thu-07	7.4			7.5	256				4.2	4.2
Fri-08	7.6			7.4	312				4.1	4.1
Sat-09	7.5			7.4	208				2.8	2.8
Sun-10	7.5			7.6	308				3.0	3.0
Mon-11	7.5			7.5	276				2.5	2.5
Tue-12	7.6			7.7	364				2.5	2.5
Wed-13	7.5			8.0	356				4.4	4.4
Thu-14	7.4			7.5	284				3.2	3.2
Fri-15	7.6			7.6	148				2.2	2.2
Sat-16	7.4			7.5	320				2.4	2.4
Sun-17	7.6			7.5	292				2.4	2.4
Mon-18	7.6			7.9	348				2.7	2.7
Tue-19	7.6			7.9	256				2.3	2.3
Wed-20	7.4			7.6	316				2.5	2.5
Thu-21	7.5			7.6	280				1.7	1.7
Fri-22	7.5			7.5	308				1.7	1.7
Sat-23	7.3	7.2		7.5	332	80			2.6	2.6
Sun-24	7.6	7.7		7.5	234	54			2.9	2.9
Mon-25	7.5			7.6	352				3.0	3.0
Tue-26	7.6			7.6	280				2.9	2.9
Wed-27	7.4			7.5	311				2.7	2.7
Thu-28	7.8			7.6	274				2.2	2.2
Fri-29	7.5			7.5	268				2.7	2.7
Sat-30	7.6			7.5	376				2.9	2.9
Sun 31	7.6			7.5	291				4.6	4.6
Average	7.5	7.5	---	7.5	320	67	---	---	3.5	3.5
Minimum	7.3	7.2	---	7.2	148	54	---	---	1.7	1.7
Maximum	7.8	7.7	---	8.0	524	80	---	---	7.7	7.7
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
Fri-01	289				3.0	3.0	11.00				0.40	0.40
Sat-02	229				3.0	3.0	7.60				0.35	0.35
Sun-03	302				3.0	3.0	7.38				0.30	0.30
Mon-04	253				3.0	3.0	9.06				0.26	0.26
Tue-05	312				3.0	3.0	9.75				0.31	0.31
Wed-06	288				3.0	3.0	8.03				0.29	0.29
Thu-07	253				3.0	3.0	9.29				0.25	0.25
Fri-08	304				2.0	2.0	11.40				0.29	0.29
Sat-09	209				2.0	2.0	7.67				0.25	0.25
Sun-10	228				< 2.0	2.0	7.31				0.23	0.23
Mon-11	280				2.0	2.0	7.19				0.24	0.24
Tue-12	419				3.0	3.0	7.90				0.21	0.21
Wed-13	305				3.0	3.0	7.61				0.23	0.23
Thu-14	255				3.0	3.0	7.13				0.24	0.24
Fri-15	219				2.0	2.0	6.22				0.21	0.21
Sat-16	310				2.0	2.0	7.54				0.19	0.19
Sun-17	269				2.0	2.0	6.89				0.18	0.18
Mon-18	325				2.0	2.0	7.16				0.18	0.18
Tue-19	306				2.0	2.0	6.98				0.17	0.17
Wed-20	300				2.0	2.0	7.52				0.17	0.17
Thu-21	388				< 2.0	2.0	7.90				0.20	0.20
Fri-22	357				< 2.0	2.0	7.52				0.19	0.19
Sat-23	264	106			2.0	2.0	4.76	3.11			0.17	0.17
Sun-24	242	114			2.0	2.0	5.69	2.96			0.18	0.18
Mon-25	292				< 2.0	2.0	6.58				0.14	0.14
Tue-26	321				< 2.0	2.0	8.06				0.15	0.15
Wed-27	320				2.0	2.0	7.70				0.17	0.17
Thu-28	305				2.0	2.0	9.07				0.19	0.19
Fri-29	289				2.0	2.0	10.40				0.22	0.22
Sat-30	395				2.0	2.0	11.50				0.23	0.23
Sun 31	300				3.0	3.0	9.38				0.25	0.25
Average	294	110	---	---	2.4	2.4	8.04	3.04	---	---	0.23	0.23
Minimum	209	106	---	---	< 2.0	2.0	4.76	2.96	---	---	0.14	0.14
Maximum	419	114	---	---	3.0	3.0	11.5	3.11	---	---	0.40	0.40
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	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Fri-01	46.1				0.43	0.43	69.9			2.10
Sat-02	39.0				0.26	0.26	59.3			2.00
Sun-03	31.6				0.14	0.14	56.8			1.60
Mon-04	42.0				0.40	0.40	65.0			2.10
Tue-05	44.9				0.68	0.68	70.9			2.70
Wed-06	41.1				0.50	0.50	63.0			2.40
Thu-07	29.1				0.44	0.44	59.2			2.30
Fri-08	47.1				0.78	0.78	76.9			2.30
Sat-09	27.5				0.39	0.39	54.6			1.90
Sun-10	38.9				0.24	0.24	55.5			1.60
Mon-11	38.9				0.45	0.45	58.0			1.70
Tue-12	37.9				0.27	0.27	61.3			1.50
Wed-13	37.0				0.14	0.14	56.4			1.80
Thu-14	32.1				0.16	0.16	54.8			1.30
Fri-15	31.8				0.21	0.21	52.6			1.50
Sat-16	31.4				0.28	0.28	55.8			1.80
Sun-17	36.6				0.37	0.37	59.0			1.70
Mon-18	34.4				0.31	0.31	53.8			1.70
Tue-19	38.4				0.26	0.26	54.8			1.60
Wed-20	38.3				0.18	0.18	60.0			1.60
Thu-21	35.7				0.13	0.13	57.7			1.40
Fri-22	32.2				0.16	0.16	58.1			1.50
Sat-23	15.7	17.3			0.08	0.08	36.2	23.6		1.50
Sun-24	24.9	22.4			0.58	0.58	53.4	28.8		1.90
Mon-25	32.9				0.79	0.79	50.2			2.30
Tue-26	35.8				0.55	0.55	50.3			1.90
Wed-27	45.2				1.28	1.28	56.5			2.60
Thu-28	44.2				1.00	1.00	65.9			2.50
Fri-29	45.2				1.25	1.25	62.5			2.70
Sat-30	50.3				1.90	1.90	74.1			3.20
Sun 31	49.2				2.84	2.84	68.6			4.60
Average	37.3	19.9	---	---	0.56	0.56	59.1	26.2	---	2.04
Minimum	15.7	17.3	---	---	0.08	0.08	36.2	23.6	---	1.30
Maximum	50.3	22.4	---	---	2.84	2.84	76.9	28.8	---	4.60
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	NO_3+NO_2 (mg/L) RAW	NO_3+NO_2 OUTFALL 30	NO_3+NO_2 OUTFALL 20	NO_3+NO_2 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
Fri-01				15.7	76.2			85.8				5
Sat-02				12.4	65.2			78.8				4
Sun-03				8.21	73.4			76.9				1
Mon-04				8.93	71.8			73.7				3
Tue-05				11.2	78.5			80.1				13
Wed-06	< 0.01			8.81	75.3			81.1				6
Thu-07				7.91	77.7			78.9				9
Fri-08				9.82	77.0			81.2				1
Sat-09				8.31	71.3			77.7				2
Sun-10				7.20	74.1			77.2				1
Mon-11				7.35	64.7			75.0				2
Tue-12				7.70	78.6			73.8				2
Wed-13	< 0.01			8.74	73.7			80.9				4
Thu-14				7.37	75.0			79.8				1
Fri-15				7.56	78.8			81.6				< 1
Sat-16				7.85	74.1			81.9				2
Sun-17				7.94	66.5			73.5				1
Mon-18				7.50	52.3			68.0				2
Tue-19				6.42	76.7			77.7	2.7			1
Wed-20	0.03			7.06	76.2			77.3				1
Thu-21				6.91	82.4			80.9				2
Fri-22				7.04	80.0			83.1	2.2			2
Sat-23		0.30		4.69	42.4	41.2		73.9		0.1		2
Sun-24		0.08		4.14	57.1	51.9		51.7		1.0		6
Mon-25				5.50	70.4			67.5				9
Tue-26				5.94	77.0			80.3				4
Wed-27	0.02			8.10	78.3			87.1				2
Thu-28				9.90	80.7			86.5				3
Fri-29				12.7	91.2			88.4				5
Sat-30				12.0	82.0			93.5				5
Sun 31				12.2	71.2			78.3				2
Average	0.02	0.19	---	8.49	73.2	46.6	---	78.5	---	---	---	---
Minimum	< 0.01	0.08	---	4.14	42.4	41.2	---	51.7	2.2	0.1	---	< 1
Maximum	0.03	0.30	---	15.7	91.2	51.9	---	93.5	2.7	1.0	---	13
GeoMean	---	---	---	---	---	---	---	---	2.4	0.3	---	3
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%	254	254	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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