PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
December 2021

Digested Sludge: Total Monthly Volume (ML)	65.6

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
Wed-01	343.7	0.0	257.8	0.0	0.0	12.4	0.0	245.4	245.4
Thu-02	342.4	0.0	252.1	0.0	0.0	11.7	0.0	240.4	240.4
Fri-03	334.9	0.0	250.1	0.0	0.0	11.1	0.0	239.0	239.0
Sat-04	360.0	0.0	249.0	0.0	0.0	11.2	0.0	237.8	237.8
Sun-05	367.4	0.0	250.3	0.0	0.0	11.3	0.0	239.0	239.0
Mon-06	350.6	0.0	255.0	0.0	0.0	11.7	0.0	243.3	243.3
Tue-07	344.7	0.0	248.8	0.0	0.0	11.9	0.0	236.9	236.9
Wed-08	484.0	0.0	287.0	17.2	0.0	12.1	0.0	257.7	257.7
Thu-09	349.4	0.0	251.0	0.0	0.0	10.2	0.0	240.8	240.8
Fri-10	337.5	0.0	251.8	0.0	0.0	10.9	0.0	240.9	240.9
Sat-11	360.8	0.0	248.7	0.0	0.0	11.1	0.0	237.6	237.6
Sun-12	362.2	0.0	247.7	0.0	0.0	11.2	0.0	236.5	236.5
Mon-13	346.2	0.0	254.3	0.0	0.0	11.9	0.0	242.4	242.4
Tue-14	344.8	0.0	250.2	0.0	0.0	12.0	0.0	238.2	238.2
Wed-15	345.4	0.0	253.1	0.0	0.0	11.0	0.0	242.1	242.1
Thu-16	337.3	0.0	251.3	0.0	0.0	11.8	0.0	239.5	239.5
Fri-17	348.8	0.0	253.3	0.0	0.0	11.1	0.0	242.2	242.2
Sat-18	359.1	0.0	251.4	0.0	0.0	11.4	0.0	240.0	240.0
Sun-19	356.1	0.0	248.1	0.0	0.0	12.2	0.0	235.9	235.9
Mon-20	367.1	0.0	245.8	0.0	0.0	12.0	0.0	233.8	233.8
Tue-21	338.6	0.0	243.7	0.0	0.0	12.2	0.0	231.5	231.5
Wed-22	336.3	0.0	249.6	0.0	0.0	12.5	0.0	237.1	237.1
Thu-23	352.7	0.0	254.3	0.0	0.0	12.2	0.0	242.1	242.1
Fri-24	369.9	0.0	256.1	0.0	0.0	12.4	0.0	243.7	243.7
Sat-25	339.7	0.0	232.7	0.0	0.0	11.8	0.0	220.9	220.9
Sun-26	341.3	0.0	231.9	0.0	0.0	12.1	0.0	219.8	219.8
Mon-27	357.8	0.0	243.5	0.0	0.0	11.9	0.0	231.6	231.6
Tue-28	347.7	0.0	248.0	0.0	0.0	11.8	0.0	236.2	236.2
Wed-29	352.3	0.0	251.0	0.0	0.0	11.6	0.0	239.4	239.4
Thu-30	352.4	0.0	252.5	0.0	0.0	11.6	0.0	240.9	240.9
Fri 31	368.6	0.0	256.2	0.0	0.0	11.1	0.0	245.1	245.1
Average		354.8	0.0	250.8	0.6	0.0	11.7	0.0	238.6	238.6
Minimum		334.9	0.0	231.9	0.0	0.0	10.2	0.0	219.8	219.8
Maximum		484.0	0.0	287.0	17.2	0.0	12.5	0.0	257.7	257.7
GeoMean		---	---	---	---	---	---	---	---	---
TOTAL		---	0	7,776	17	0	361	0	7,398	7,398

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
Wed-01	7.5			7.5	257				3.7	3.7
Thu-02	7.5			7.4	432				3.3	3.3
Fri-03	7.5			7.5	312				4.5	4.5
Sat-04	7.4			7.5	337				5.6	5.6
Sun-05	7.5			7.6	260				4.0	4.0
Mon-06	7.4			7.5	297				5.4	5.4
Tue-07	7.5			7.5	311				5.2	5.2
Wed-08	7.4	7.5		7.2	288	50			6.6	6.6
Thu-09	7.6			7.4	296				5.4	5.4
Fri-10	7.6			7.4	296				5.6	5.6
Sat-11	7.5			7.5	284				4.2	4.2
Sun-12	7.6			7.5	304				4.8	4.8
Mon-13	7.4			7.5	296				5.5	5.5
Tue-14	7.4			7.5	276				5.5	5.5
Wed-15	7.6			7.5	364				5.4	5.4
Thu-16	7.4			7.5	304				4.5	4.5
Fri-17	7.4			7.5	308				4.7	4.7
Sat-18	7.5			7.6	312				5.6	5.6
Sun-19	7.5			7.5	300				4.9	4.9
Mon-20	7.5			7.5	317				5.2	5.2
Tue-21	7.5			7.6	308				5.2	5.2
Wed-22	7.6			7.6	295				5.0	5.0
Thu-23	7.4			7.6	264				4.3	4.3
Fri-24	7.4			7.5	272				4.9	4.9
Sat-25	7.6			7.7	184				4.5	4.5
Sun-26	7.6			7.5	416				4.5	4.5
Mon-27	7.6			7.5	284				5.3	5.3
Tue-28	7.6			7.5	320				14.0	14.0
Wed-29	7.5			7.6	348				12.3	12.3
Thu-30	7.5			7.5	343				4.8	4.8
Fri 31	7.5			7.5	308				6.1	6.1
Average	7.5	7.5	---	7.5	306	50	---	---	5.5	5.5
Minimum	7.4	7.5	---	7.2	184	50	---	---	3.3	3.3
Maximum	7.6	7.5	---	7.7	432	50	---	---	14.0	14.0
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	$BOD_5/cBOD_5$ (mg/L) RAW	BOD_5 OUTFALL 30	BOD_5 OUTFALL 20	BOD_5 EPEPS	BOD_5 OUTFALL 10 FEC	BOD_5 OUTFALL 10 FE	$cBOD_5$ 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
Wed-01	262				3	3			8.78				0.29	0.29
Thu-02	341				3	3			9.46				0.27	0.27
Fri-03	299				3	3			9.13				0.29	0.29
Sat-04	331				3	3			9.05				0.32	0.32
Sun-05	342				3	3			8.50				0.32	0.32
Mon-06	331				3	3			8.56				0.31	0.31
Tue-07	310				3	3			8.86				0.33	0.33
Wed-08	268	114			3	3			8.61	4.97			0.35	0.35
Thu-09	377				3	3			9.78				0.36	0.36
Fri-10	289				3	3			9.62				0.34	0.34
Sat-11	271				3	3			9.16				0.34	0.34
Sun-12	336				3	3			9.63				0.32	0.32
Mon-13	363				3	3			10.3				0.33	0.33
Tue-14	303				3	3			9.91				0.33	0.33
Wed-15	309				3	3			9.94				0.37	0.37
Thu-16	321				3	3			9.68				0.35	0.35
Fri-17	344				3	3			9.15				0.37	0.37
Sat-18	326				3	3			9.03				0.56	0.56
Sun-19	317				3	3			8.82				0.33	0.33
Mon-20	389				3	3			9.82				0.32	0.32
Tue-21	300				3	3			10.2				0.40	0.40
Wed-22	304				4	4			9.78				0.35	0.35
Thu-23	320				3	3			10.0				0.37	0.37
Fri-24	368				3	3			9.46				0.35	0.35
Sat-25	305				3	3			9.64				0.33	0.33
Sun-26	340				3	3			11.60				0.31	0.31
Mon-27	368				3	3			9.33				0.37	0.37
Tue-28	339				5	5			8.65				0.78	0.78
Wed-29	314				5	5			9.44				0.64	0.64
Thu-30	354				3	3			9.19				0.35	0.35
Fri 31	321				3	3			8.80				0.41	0.41
Average	325	114	---	---	3	3			9.42	4.97	---	---	0.37	0.37
Minimum	262	114	---	---	3	3			8.50	4.97	---	---	0.27	0.27
Maximum	389	114	---	---	5	5			11.6	4.97	---	---	0.78	0.78
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	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	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
Wed-01	41.2				3.93	3.93	65.7			6.1	0.01			9.62	123			104				2
Thu-02	44.1				2.52	2.52	68.0			4.4				9.71	134			171				2
Fri-03	45.5				3.28	3.28	62.7			5.2				11.7	105			131				2
Sat-04	46.3				3.54	3.54	62.9			5.7				11.4	95			114				2
Sun-05	44.9				3.72	3.72	63.3			5.4				10.4	87			97				2
Mon-06	44.7				3.31	3.31	60.7			5.9				10.6	97			91				6
Tue-07	44.3				3.41	3.41	67.1			5.4				11.0	103			100				4
Wed-08	33.5	2.1			1.30	1.30	59.0	52.3		2.9	< 0.07	0.04		10.9	534	980		258		0.2		3
Thu-09	47.5				1.64	1.64	72.8			3.8				10.6	130			360				5
Fri-10	47.1				2.54	2.54	66.9			4.5				12.4	118			169				2
Sat-11	45.3				2.61	2.61	68.9			4.7				13.0	112			132				1
Sun-12	48.8				3.05	3.05	65.3			5.7				12.3	128			130				3
Mon-13	46.6				3.99	3.99	75.5			6.0				12.1	116			130				4
Tue-14	31.4				3.13	3.13	74.3			6.3				11.9	114			121				3
Wed-15	47.0				3.92	3.92	69.1			5.7	0.02			10.3	111			120	2.0			2
Thu-16	42.6				2.28	2.28	66.0			4.2				11.1	112			112				3
Fri-17	39.3				2.54	2.54	62.4			4.1				9.87	106			117				2
Sat-18	44.7				1.72	1.72	64.6			4.2				8.09	88			103				3
Sun-19	43.0				2.47	2.47	61.5			4.3				9.12	86			96				3
Mon-20	42.5				1.68	1.68	65.0			4.6				9.04	105			100				2
Tue-21	46.0				2.47	2.47	67.0			4.2				8.37	120			116	0.7			4
Wed-22	46.4				1.55	1.55	72.6			4.0	< 0.01			8.71	158			138				7
Thu-23	44.3				1.83	1.83	67.6			4.0				8.95	142			157				5
Fri-24	45.2				2.68	2.68	69.2			4.8				8.77	110			141				1
Sat-25	45.8				2.99	2.99	64.0			4.9				9.51	84			110				< 1
Sun-26	52.1				0.72	0.72	77.7			5.0				11.3	78			92				2
Mon-27	46.7				4.75	4.75	68.3			6.1				11.0	83			83				6
Tue-28	45.5				3.87	3.87	64.9			7.5				8.99	83			85				2
Wed-29	45.8				2.61	2.61	71.6			5.9	0.07			9.20	97			89				3
Thu-30	42.1				2.56	2.56	61.1			5.1				8.37	85			93				4
Fri 31	43.1				2.81	2.81	67.4			4.7				8.52	82			92				2
Average	44.3	2.1	---	---	2.76	2.76	66.9	52.3	---	5.0	0.04	0.04	---	10.2	120	980	---	127	---	---	---	---
Minimum	31.4	2.1	---	---	0.72	0.72	59.0	52.3	---	2.9	< 0.01	0.04	---	8.09	78	980	---	83	0.7	0.2	---	< 1
Maximum	52.1	2.1	---	---	4.75	4.75	77.7	52.3	---	7.5	0.07	0.04	---	13.0	534	980	---	360	2.0	0.2	---	7
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	0.2	---	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
5	5	100%	259	259	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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