PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
November 2022

Digested Sludge: Total Monthly Volume (ML)	68.9

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
Tue-01	379.7	0.0	257.4	0.0	0.0	12.1	0.0	245.3	245.3
Wed-02	428.4	0.0	266.4	0.0	0.0	12.3	0.0	254.1	254.1
Thu-03	372.5	0.0	262.1	0.0	0.0	12.4	0.0	249.7	249.7
Fri-04	333.0	0.0	272.0	0.0	0.0	12.3	0.0	259.7	259.7
Sat-05	324.0	0.0	261.1	0.0	0.0	12.0	0.0	249.1	249.1
Sun-06	334.7	0.0	273.3	0.0	0.0	11.9	0.0	261.4	261.4
Mon-07	331.5	0.0	265.0	0.0	0.0	12.1	0.0	252.9	252.9
Tue-08	330.3	0.0	269.2	0.0	0.0	12.6	0.0	256.6	256.6
Wed-09	313.2	0.0	272.6	0.0	0.0	12.4	0.0	260.2	260.2
Thu-10	305.0	0.0	270.1	0.0	0.0	12.0	0.0	258.1	258.1
Fri-11	326.0	0.0	267.4	0.0	0.0	12.1	0.0	255.3	255.3
Sat-12	331.9	0.0	263.8	0.0	0.0	12.1	0.0	251.7	251.7
Sun-13	338.2	0.0	268.6	0.0	0.0	13.2	0.0	255.4	255.4
Mon-14	324.9	0.0	272.3	0.0	0.0	13.3	0.0	259.0	259.0
Tue-15	346.7	0.0	272.1	0.0	0.0	13.2	0.0	258.9	258.9
Wed-16	350.8	0.0	271.1	0.0	0.0	13.1	0.0	258.0	258.0
Thu-17	361.8	0.0	270.6	0.0	0.0	12.8	0.0	257.8	257.8
Fri-18	307.0	0.0	263.9	0.0	0.0	12.9	0.0	251.0	251.0
Sat-19	335.0	0.0	263.0	0.0	0.0	12.6	0.0	250.4	250.4
Sun-20	360.1	0.0	264.5	0.0	0.0	12.6	0.0	251.9	251.9
Mon-21	333.8	0.0	273.6	0.0	0.0	11.7	0.0	261.9	261.9
Tue-22	328.5	0.0	262.8	0.0	0.0	10.5	0.0	252.3	252.3
Wed-23	356.4	0.0	266.8	0.0	0.0	12.1	0.0	254.7	254.7
Thu-24	321.5	0.0	264.4	0.0	0.0	13.9	0.0	250.5	250.5
Fri-25	359.2	0.0	273.0	0.0	0.0	13.6	0.0	259.4	259.4
Sat-26	344.5	0.0	260.6	0.0	0.0	12.1	0.0	248.5	248.5
Sun-27	349.4	0.0	264.6	0.0	0.0	11.0	0.0	253.6	253.6
Mon-28	327.2	0.0	266.0	0.0	0.0	11.7	0.0	254.3	254.3
Tue-29	331.1	0.0	260.6	0.0	0.0	12.3	0.0	248.3	248.3
Wed-30	313.2	0.0	263.1	0.0	0.0	12.3	0.0	250.8	250.8
Average	340.0	0.0	266.7	0.0	0.0	12.4	0.0	254.4	254.4
Minimum	305.0	0.0	257.4	0.0	0.0	10.5	0.0	245.3	245.3
Maximum	428.4	0.0	273.6	0.0	0.0	13.9	0.0	261.9	261.9
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,002	0	0	371	0	7,631	7,631

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
Tue-01	7.6			7.6	360				3.5	3.5
Wed-02	7.5			7.5	300				3.1	3.1
Thu-03	7.5			7.6	472				3.4	3.4
Fri-04	7.5			7.6	388				3.6	3.6
Sat-05	7.6			7.6	364				3.6	3.6
Sun-06	7.7			7.5	346				3.2	3.2
Mon-07	7.5			7.6	350				3.2	3.2
Tue-08	7.3			7.7	625				3.0	3.0
Wed-09	7.7			7.6	480				4.9	4.9
Thu-10	7.5			7.5	408				3.4	3.4
Fri-11	7.5			7.6	348				2.5	2.5
Sat-12	7.6			7.7	380				3.4	3.4
Sun-13	7.5			7.7	391				3.4	3.4
Mon-14	7.6			7.6	444				3.4	3.4
Tue-15	7.6			7.7	424				2.2	2.2
Wed-16	7.5			7.6	288				3.5	3.5
Thu-17	7.6			7.6	356				3.8	3.8
Fri-18	7.6			7.6	356				3.1	3.1
Sat-19	7.6			7.6	400				3.9	3.9
Sun-20	7.7			7.6	476				3.7	3.7
Mon-21	7.6			7.6	516				4.1	4.1
Tue-22	7.7			7.6	620				3.4	3.4
Wed-23	7.5			7.7	432				2.9	2.9
Thu-24	7.4			7.5	340				4.4	4.4
Fri-25	7.5			7.5	292				3.9	3.9
Sat-26	7.5			7.5	283				4.3	4.3
Sun-27	7.4			7.6	314				3.4	3.4
Mon-28	7.6			7.6	300				3.9	3.9
Tue-29	7.4			7.6	347				3.5	3.5
Wed-30	7.5			7.6	296				3.4	3.4
Average	7.5	---	---	7.6	390	---	---	---	3.5	3.5
Minimum	7.3	---	---	---	283	---	---	---	2.2	2.2
Maximum	7.7	---	---	---	625	---	---	---	4.9	4.9
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 $cBOD_5$	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
Tue-01	310				3	3	7.00				0.25	0.25
Wed-02	342				3	3	6.63				0.27	0.27
Thu-03	375				3	3	8.53				0.29	0.29
Fri-04	301				3	3	7.16				0.27	0.27
Sat-05	347				3	3	7.68				0.28	0.28
Sun-06	373				4	4	7.07				0.29	0.29
Mon-07	379				3	3	7.52				0.29	0.29
Tue-08	374				3	3	8.30				0.26	0.26
Wed-09	320				3	3	6.62				0.25	0.25
Thu-10	314				3	3	6.57				0.26	0.26
Fri-11	316				3	3	6.60				0.23	0.23
Sat-12	263				3	3	6.12				0.21	0.21
Sun-13	292				3	3	6.48				0.21	0.21
Mon-14	363				3	3	6.97				0.23	0.23
Tue-15	301				3	3	7.85				0.20	0.20
Wed-16	332				3	3	9.14				0.23	0.23
Thu-17	229				3	3	7.96				0.24	0.24
Fri-18	345				3	3	7.83				0.24	0.24
Sat-19	330				3	3	6.81				0.25	0.25
Sun-20	334				3	3	8.83				0.24	0.24
Mon-21	359				3	3	8.72				0.24	0.24
Tue-22	436				3	3	9.27				0.24	0.24
Wed-23	318				2	2	7.92				0.24	0.24
Thu-24	320				3	3	7.31				0.24	0.24
Fri-25	295				4	4	7.61				0.25	0.25
Sat-26	306				3	3	7.38				0.27	0.27
Sun-27	338				3	3	7.46				0.29	0.29
Mon-28	299				3	3	7.38				0.28	0.28
Tue-29	331				3	3	7.88				0.28	0.28
Wed-30	301				2	2	7.81				0.27	0.27
Average	328	---	---	---	3.0	3.0	7.55	---	---	---	0.25	0.25
Minimum	229	---	---	---	2	2	6.12	---	---	---	0.20	0.20
Maximum	436	---	---	---	4	4	9.27	---	---	---	0.29	0.29
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3 OUTFALL 30	NH3 OUTFALL 20	NH3 EPEPS	NH3 OUTFALL 10 FEC	NH3 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
Tue-01	37.7				0.39	0.39	55.9			1.8				10.1
Wed-02	33.8				0.57	0.57	47.1			1.9	< 0.01			9.67
Thu-03	33.6				0.53	0.53	61.8			1.8				7.87
Fri-04	35.5				0.58	0.58	50.1			1.8				9.07
Sat-05	37.4				0.78	0.78	62.8			2.6				9.43
Sun-06	34.9				1.44	1.44	59.6			2.8				9.87
Mon-07	35.7				1.17	1.17	55.1			2.6				9.41
Tue-08	34.7				0.44	0.44	57.8			1.9				7.45
Wed-09	31.1				0.35	0.35	54.9			1.9	1.16			7.60
Thu-10	32.2				0.57	0.57	49.6			2.0				8.52
Fri-11	32.1				0.54	0.54	52.2			1.7				7.43
Sat-12	33.7				0.50	0.50	43.7			1.8				7.47
Sun-13	31.4				0.42	0.42	47.2			1.5				7.72
Mon-14	32.7				0.62	0.62	58.0			1.9				6.97
Tue-15	32.8				0.46	0.46	62.3			1.8				7.08
Wed-16	42.2				0.56	0.56	68.5			2.1	< 0.01			7.03
Thu-17	36.0				1.16	1.16	58.5			2.4				8.53
Fri-18	37.9				1.13	1.13	60.3			2.4				9.05
Sat-19	34.7				1.22	1.22	56.8			2.6				9.45
Sun-20	36.1				0.79	0.79	65.0			2.4				9.47
Mon-21	36.0				0.45	0.45	73.3			2.2				7.46
Tue-22	33.1				0.50	0.50	69.5			2.2				8.97
Wed-23	33.7				0.62	0.62	65.9			2.7	< 0.01			9.71
Thu-24	32.1				0.35	0.35	62.7			2.5				8.76
Fri-25	39.1				1.18	1.18	63.7			3.0				9.88
Sat-26	40.4				2.38	2.38	65.9			4.4				11.1
Sun-27	40.2				2.35	2.35	67.2			4.3				11.4
Mon-28	40.5				2.24	2.24	63.7			4.0				11.3
Tue-29	39.5				1.56	1.56	64.3			3.4				10.3
Wed-30	40.3				1.56	1.56	64.5			3.3	< 0.01			10.8
Average	35.7	---	---	---	0.91	0.91	59.6	---	---	2.5	0.24	---	---	8.96
Minimum	31.1	---	---	---	0.35	0.35	43.7	---	---	1.5	0.01	---	---	6.97
Maximum	42.2	---	---	---	2.38	2.38	73.3	---	---	4.4	1.16	---	---	11.4
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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
Tue-01	82.2			86.2				6
Wed-02	142			102				2
Thu-03	121			136				3
Fri-04	179			136				2
Sat-05	117			179				3
Sun-06	94.7			135				3
Mon-07	109			112				4
Tue-08	110			115				1
Wed-09	96.7			114				4
Thu-10	102			112				7
Fri-11	100			109				3
Sat-12	106			106				3
Sun-13	95.6			112				4
Mon-14	114			104				6
Tue-15	134			132				3
Wed-16	117			126				3
Thu-17	86.4			113				3
Fri-18	94.5			99.2	2.6			6
Sat-19	85.4			97.3				6
Sun-20	87.3			90.1				7
Mon-21	120			96.0				4
Tue-22	103			116	4.4			4
Wed-23	96.8			115				4
Thu-24	99.2			103				4
Fri-25	131			112				4
Sat-26	89.7			130				4
Sun-27	81.7			98.2				3
Mon-28	91.4			86.6				6
Tue-29	89.3			93.6				4
Wed-30	86.7			97.6				1
Average	105	---	---	112.1		---	---	
Minimum	81.7	---	---	86.2	--- 2.6	---	---	--- 1
Maximum	179	---	---	179	--- 4.4	---	---	--- 7
GeoMean	---	---	---	---	3.4	---	---	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
0	0	100%	642	642	100%

Report Comments

1	BOD/cBOD samples in Raw and Outfall 10 on Nov 10 and 11 were tested by the subcontracted lab.

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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