PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
June 2022

Digested Sludge: Total Monthly Volume (ML)	64.5

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent INFs	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Non UV Disinfected OUTFALL 20	Non UV Disinfected MPW	UV Disinfected EPEPS	UV Disinfected OUTFALL 10 FEC	UV Disinfected OUTFALL 10 FE
Wed-01	308.4	0.0	265.4	0.0	0.0	11.6	0.0	253.8	253.8
Thu-02	305.9	0.0	266.0	0.0	0.0	12.3	0.0	253.7	253.7
Fri-03	329.7	0.0	269.4	0.0	0.0	12.0	0.0	257.4	257.4
Sat-04	315.0	0.0	257.6	0.0	0.0	11.8	0.0	245.8	245.8
Sun-05	325.5	0.0	257.0	0.0	0.0	11.7	0.0	245.3	245.3
Mon-06	552.1	0.0	323.9	45.1	0.0	11.8	0.0	267.0	267.0
Tue-07	541.8	0.0	341.2	35.2	0.0	11.8	0.0	294.2	294.2
Wed-08	452.8	0.0	282.2	5.8	0.0	11.8	0.0	264.6	264.6
Thu-09	355.5	0.0	276.5	0.0	0.0	11.5	0.0	265.0	265.0
Fri-10	318.9	0.0	271.7	0.0	0.0	11.1	0.0	260.6	260.6
Sat-11	320.9	0.0	261.3	0.0	0.0	11.1	0.0	250.2	250.2
Sun-12	843.5	0.0	327.7	63.7	0.0	10.9	0.0	253.1	253.1
Mon-13	487.3	0.0	297.1	4.6	0.0	10.6	0.0	281.9	281.9
Tue-14	1,708.7	27.0	943.1	606.9	1.4	10.7	0.0	324.1	324.1
Wed-15	1,374.4	0.0	795.2	457.5	0.0	10.9	0.0	326.8	326.8
Thu-16	504.0	0.0	363.3	13.8	0.0	11.6	0.0	337.9	337.9
Fri-17	1,349.2	0.0	453.4	120.4	0.0	12.5	0.0	320.5	320.5
Sat-18	492.6	0.0	352.4	32.3	0.0	12.5	0.0	307.6	307.6
Sun-19	395.2	0.0	313.9	0.0	0.0	12.5	0.0	301.4	301.4
Mon-20	381.4	0.0	304.4	0.0	0.0	12.1	0.0	292.3	292.3
Tue-21	433.1	0.0	307.3	11.9	0.0	12.1	0.0	283.3	283.3
Wed-22	1,559.7	5.0	483.7	188.6	0.0	12.3	0.0	282.8	282.8
Thu-23	1,802.9	54.0	670.5	347.5	0.0	12.7	0.0	310.3	310.3
Fri-24	1,635.5	8.0	691.8	363.4	0.0	12.7	0.0	315.7	315.7
Sat-25	465.7	0.0	382.8	39.7	0.0	12.6	0.0	330.5	330.5
Sun-26	539.2	0.0	359.2	20.9	0.0	12.4	0.0	325.9	325.9
Mon-27	395.9	0.0	335.1	0.0	0.0	11.9	0.0	323.2	323.2
Tue-28	2,287.9	0.0	321.3	0.0	0.1	11.8	0.0	309.4	309.4
Wed-29	1,415.3	1.0	444.2	99.0	0.1	12.0	0.0	333.1	333.1
Thu-30	376.8	0.0	322.5	0.0	0.0	10.2	0.0	312.3	312.3
Average	752.5	3.2	384.7	81.9	0.1	11.8	0.0	291.0	291.0
Minimum	305.9	0.0	257.0	0.0	0.0	10.2	0.0	245.3	245.3
Maximum	2,287.9	54.0	943.1	606.9	1.4	12.7	0.0	337.9	337.9
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	95	11,541	2,456	2	354	0	8,730	8,730

Liquid Stream Quality

DATE	pH@25°C RAW	pH OUTFALL 30	pH OUTFALL 20	pH OUTFALL 10 FEC	TSS RAW	TSS OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Wed-01	7.6			7.7	277				3.4	3.4
Thu-02	7.6			7.8	320				6.7	6.7
Fri-03	7.4			7.6	292				3.1	3.1
Sat-04	7.5			7.7	312				3.3	3.3
Sun-05	7.5			7.7	372				3.0	3.0
Mon-06	7.5	7.5		7.6	412	88			3.9	3.9
Tue-07	7.5	7.5		7.5	432	71			5.0	5.0
Wed-08	7.7	7.8		7.6	324	62			4.8	4.8
Thu-09	7.5			7.6	260				8.8	8.8
Fri-10	7.4			7.7	234				4.8	4.8
Sat-11	7.5			7.6	212				4.3	4.3
Sun-12	7.4	7.6		7.7	323	134			4.7	4.7
Mon-13	7.5	7.6		7.5	276	56			3.9	3.9
Tue-14	7.4	7.5		7.5	431	97			4.8	4.8
Wed-15	7.6	7.5		7.3	234	49			2.4	2.4
Thu-16	7.7	7.8		7.4	320	48			3.1	3.1
Fri-17	7.5	7.5		7.4	372	48			3.2	3.2
Sat-18	7.5	7.6		7.4	264	56			2.6	2.6
Sun-19	7.6			7.5	308				3.3	3.3
Mon-20	7.6			7.5	297				2.9	2.9
Tue-21	7.6	7.6		7.7	332	64			2.2	2.2
Wed-22	7.5	7.5		7.6	532	101			2.5	2.5
Thu-23	7.5	7.5		7.4	318	75			2.6	2.6
Fri-24	7.5	7.6		7.6	360	55			2.2	2.2
Sat-25	7.7	7.7		7.5	360	70			3.1	3.1
Sun-26	7.4	7.7		7.5	266	90			3.0	3.0
Mon-27	7.6			7.6	324				3.8	3.8
Tue-28	7.4			7.6	302				2.2	2.2
Wed-29	7.4	7.4		7.5	274	92			2.3	2.3
Thu-30	7.4			7.6	592				2.5	2.5
Average	7.5	7.6		7.6	331	73.8			3.6	3.6
Minimum	7.4	7.4	---	7.3	212	48	---	---	2.2	2.2
Maximum	7.7	7.8	---	7.8	592	134	---	---	6.8	8.8
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ 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 RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Wed-01	338				3	3	6.70				0.23	0.23
Thu-02	290				6	6	6.30				0.30	0.30
Fri-03	308				3	3	6.08				0.22	0.22
Sat-04	337				3	3	6.88				0.23	0.23
Sun-05	327				2	2	6.82				0.23	0.23
Mon-06	275	133			3	3	5.47	4.15			0.26	0.26
Tue-07	286	101			3	3	5.60	3.94			0.24	0.24
Wed-08	247	157			2	2	6.53	5.33			0.24	0.24
Thu-09	289				3	3	6.21				0.49	0.49
Fri-10	303				3	3	6.05				0.33	0.33
Sat-11	280				3	3	6.69				0.23	0.23
Sun-12	233	133			3	3	6.00	3.59			0.24	0.24
Mon-13	245	96			2	2	5.48	2.58			0.18	0.18
Tue-14	128	51			3	3	3.11	1.42			0.21	0.21
Wed-15	91	39			< 2	2	2.05	1.09			0.14	0.14
Thu-16	187	60			< 2	2	5.03	1.71			0.15	0.15
Fri-17	195	65			2	2	4.70	3.07			0.17	0.17
Sat-18	267	70			< 2	2	6.57	3.77			0.13	0.13
Sun-19	226				2	2	6.18				0.16	0.16
Mon-20	221				2	2	2.65				0.18	0.18
Tue-21	312	109			< 2	2	6.09	3.23			0.16	0.16
Wed-22	160	42			< 2	2	4.92	1.89			0.16	0.16
Thu-23	150	60			< 2	2	3.62	2.53			0.14	0.14
Fri-24	157	41			< 2	2	2.84	1.17			0.13	0.13
Sat-25	201	69			2	2	3.97	3.10			0.13	0.13
Sun-26	317	119			2	2	4.64	4.42			0.14	0.14
Mon-27	214				2	2	5.03				0.16	0.16
Tue-28	285				2	2	5.49				0.18	0.18
Wed-29	200	81			< 2	2	4.11	2.54			0.15	0.15
Thu-30	320				< 2	2	6.53				0.14	0.14
Average	246	83.9			2.5	2.5	5.28	2.91			0.20	0.20
Minimum	91	39	---	---	< 2	2	2.05	1.09	---	---	0.13	0.13
Maximum	338	157	---	---	6	6	6.9	5.33	---	---	0.49	0.49
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH_3-N 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 RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	NO_2+NO_3 RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 20	NO_2+NO_3 OUTFALL 10 FEC	Chloride 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	32.2				0.43	0.43	58.2			2.3	< 0.01			10.3	91.8			102				12
Thu-02	34.0				0.72	0.72	53.3			2.4				9.90	94.6			100				2
Fri-03	36.0				0.88	0.88	56.0			2.8				9.51	79.5			96.8				3
Sat-04	39.1				0.91	0.91	59.7			2.4				9.51	81.1			98.1				< 1
Sun-05	40.6				1.39	1.39	57.0			2.8				10.1	81.6			92.9				2
Mon-06	22.9	39.0			1.51	1.51	53.0	50.7		3.1		1.28		10.3	83.7	95.4		90.4		1.3		2
Tue-07	26.1	32.5			0.57	0.57	46.8	41.1		2.3		0.88		8.11	68.1	78.1		85.7		1.3		7
Wed-08	35.0	39.8			0.75	0.75	55.5	52.5		2.4	0.02	1.20		9.38	80.3	110		103		1.8		5
Thu-09	36.2				0.45	0.45	56.1			3.1				9.82	81.4			93.8				11
Fri-10	37.1				0.65	0.65	55.3			2.6				8.84	85.6			94.4				2
Sat-11	37.1				0.49	0.49	59.0			2.3				8.50	81.9			96.7				5
Sun-12	27.5	25.2			0.88	0.88	53.3	36.3		2.3		0.09		9.05	72.4	63.0		93.8		1.7		1
Mon-13	32.5	20.6			0.29	0.29	49.6	27.9		2.0		0.07		9.04	71.9	60.6		77.9		2.6		4
Tue-14	9.5	13.2			0.18	0.18	20.7	19.3		1.7		1.10		5.43	33.7	53.9		70.1	0.5	1.7		3
Wed-15	9.2	16.0			0.05	0.05	16.7	22.1		1.1	< 0.01	2.58		3.53	45.1	62.6		51.9		0.6		2
Thu-16	28.5	26.7			0.87	0.87	46.5	32.7		2.1		1.42		8.45	83.4	95.5		79.0		0.3		1
Fri-17	23.0	28.0			1.06	1.06	38.2	36.1		2.3		0.25		8.41	75.6	81.8		86.5		0.8		4
Sat-18	27.1	33.5			0.20	0.20	59.2	43.0		1.2		0.02		9.95	47.6	90.8		87.7		0.7		4
Sun-19	30.9				0.56	0.56	53.7			2.0				11.3	84.9			89.8				2
Mon-20	30.8				0.41	0.41	22.6			1.8				10.2	84.9			87.6	2.2			3
Tue-21	29.6	25.4			< 0.03	0.03	52.4	34.2		1.6		0.28		7.02	91.3	92.8		96.9		1.4		4
Wed-22	22.1	11.7			< 0.03	0.03	37.7	23.6		1.5	0.08	0.38		6.20	72.9	62.1		95.6		0.8		2
Thu-23	18.6	14.9			0.05	0.05	29.7	24.8		1.4		0.37		7.64	56.4	58.2		75.1		0.9		3
Fri-24	14.1	16.6			0.14	0.14	22.1	22.1		1.1		3.98		5.60	65.5	70.9		59.2		0.2		3
Sat-25	16.0	23.1			< 0.03	0.03	37.6	39.6		1.3		0.61		10.9	89.8	94.5		84.7		1.0		3
Sun-26	26.2	30.5			0.24	0.24	40.9	40.0		1.3		0.62		11.4	84.5	94.0		96.2		2.3		5
Mon-27	17.9				0.33	0.33	42.0			1.9				9.70	92.1			95.5				3
Tue-28	18.5				0.34	0.34	48.4			2.0				8.89	94.5			103		0.9		2
Wed-29	21.8	18.7			0.17	0.17	35.6	22.9		1.7	< 0.01	0.19		6.78	72.5	63.9		89.1				2
Thu-30	24.8				0.32	0.32	50.2			1.7				9.34	89.8			92.7				8
Average	26.8	24.4			0.50	0.50	45.6	33.5		2.0	0.03	0.90		8.77	77.3	78.1		88.9				
Minimum	9.21	11.7	---	---	< 0.03	0.03	16.7	19.3	---	1.1	< 0.01	0.02	---	3.53	33.7	53.9	---	51.9	0.5	0.2	---	< 1
Maximum	40.6	39.8	---	---	1.51	1.51	59.7	52.5	---	3.1	0.08	3.98	---	11.4	94.6	110	---	103	2.2	2.6	---	12
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.0	1.0	---	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
174	174	100%	533	533	100%

Report Comments

	Bipass information amended

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

Allan Gordon for

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Senior Manager, Analytical Operations & Process Development Teams