PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
July 2023

Digested Sludge: Total Monthly Volume (ML)	67.7

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
Sat-01	802.2	0.0	357.7	72.4	0.0	11.9	0.0	273.4	273.4
Sun-02	370.1	0.0	290.4	0.0	0.0	12.3	0.0	278.1	278.1
Mon-03	440.2	0.0	297.6	10.9	0.0	12.1	0.0	274.6	274.6
Tue-04	360.3	0.0	293.2	0.0	0.0	12.1	0.0	281.1	281.1
Wed-05	349.4	0.0	295.1	0.0	0.0	11.8	0.0	283.3	283.3
Thu-06	344.3	0.0	293.0	0.0	0.0	11.5	0.0	281.5	281.5
Fri-07	347.5	0.0	294.3	0.0	0.0	11.9	0.0	282.4	282.4
Sat-08	345.1	0.0	282.1	0.0	0.0	11.8	0.0	270.3	270.3
Sun-09	358.0	0.0	283.4	0.0	0.0	12.1	0.0	271.3	271.3
Mon-10	443.8	0.0	305.9	3.7	0.0	12.2	0.0	290.0	290.0
Tue-11	341.3	0.0	288.6	0.0	0.0	12.0	0.0	276.6	276.6
Wed-12	460.7	0.0	293.2	0.0	0.0	12.0	0.0	281.2	281.2
Thu-13	433.3	0.0	299.2	0.0	0.0	12.1	0.0	287.1	287.1
Fri-14	336.0	0.0	279.7	0.0	0.0	11.9	0.0	267.8	267.8
Sat-15	322.5	0.0	265.5	0.0	0.0	11.9	0.0	253.6	253.6
Sun-16	1,867.8	9.0	471.0	144.7	0.0	12.0	0.0	314.3	314.3
Mon-17	1,224.1	0.0	325.5	26.0	0.0	11.9	0.0	287.6	287.6
Tue-18	1,732.5	46.0	906.1	564.6	0.0	12.2	0.0	329.3	329.3
Wed-19	412.6	0.0	352.0	5.8	0.0	12.1	0.0	334.1	334.1
Thu-20	391.6	0.0	324.3	0.0	0.0	11.6	0.0	312.7	312.7
Fri-21	400.4	0.0	319.7	0.0	0.0	11.9	0.0	307.8	307.8
Sat-22	376.7	0.0	301.9	0.0	0.0	11.7	0.0	290.2	290.2
Sun-23	371.8	0.0	311.5	0.0	0.0	11.4	0.0	300.1	300.1
Mon-24	1,789.0	18.0	653.7	301.4	0.0	11.7	0.0	340.6	340.6
Tue-25	403.3	0.0	354.7	3.6	0.0	12.2	0.0	338.9	338.9
Wed-26	1,401.1	0.0	498.1	167.2	0.0	11.9	0.0	319.0	319.0
Thu-27	570.8	0.0	371.9	23.2	0.0	12.6	0.0	336.1	336.1
Fri-28	657.2	0.0	359.6	24.1	0.0	12.0	0.0	323.5	323.5
Sat-29	375.2	0.0	318.3	0.0	0.0	10.6	0.0	307.7	307.7
Sun-30	1,245.8	0.0	336.8	30.9	0.0	10.2	0.0	295.7	295.7
Mon-31	1,098.6	0.0	409.9	48.8	0.0	9.9	0.0	351.2	351.2
Average	657.2	2.4	355.9	46.0	0.0	11.8	0.0	298.1	298.1
Minimum	322.5	0.0	265.5	0.0	0.0	9.9	0.0	253.6	253.6
Maximum	1,867.8	46.0	906.1	564.6	0.0	12.6	0.0	351.2	351.2
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	73	11,034	1,427	0	366	0	9,241	9,241

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
Sat-01	7.4	7.6		7.5	252	70			5.7	5.7
Sun-02	7.8			7.5	512				6.1	6.1
Mon-03	7.5	7.7		7.5	316	85			6.6	6.6
Tue-04	7.5			7.5	251				4.2	4.2
Wed-05	7.5			7.5	252				3.9	3.9
Thu-06	7.6			7.6	276				2.8	2.8
Fri-07	7.5			7.6	274				3.8	3.8
Sat-08	7.6			7.6	240				3.4	3.4
Sun-09	7.5			7.6	357				3.5	3.5
Mon-10	7.6	7.9		7.6	329	135			3.8	3.8
Tue-11	7.5			7.6	292				3.5	3.5
Wed-12	7.4			7.6	388				3.8	3.8
Thu-13	7.6			7.6	276				3.5	3.5
Fri-14	7.5			7.6	320				3.0	3.0
Sat-15	7.5			7.6	340				3.2	3.2
Sun-16	7.4	7.3		7.6	460	202			3.3	3.3
Mon-17	7.5	7.7		7.7	309	112			4.2	4.2
Tue-18	7.3	7.4		7.4	210	58			2.5	2.5
Wed-19	7.5	8.0		7.5	232	34			2.8	2.8
Thu-20	7.6			7.5	235				2.6	2.6
Fri-21	7.6			7.6	223				2.0	2.0
Sat-22	7.6			7.7	235				2.4	2.4
Sun-23	7.6			7.5	228				2.6	2.6
Mon-24	7.4	7.7		7.6	384	51			2.5	2.5
Tue-25	7.6	7.9		7.5	336	37			2.2	2.2
Wed-26	7.5	7.6		7.5	268	45			2.4	2.4
Thu-27	7.6	7.8		7.4	232	40			2.7	2.7
Fri-28	7.6	7.8		7.5	228	48			3.2	3.2
Sat-29	7.6			7.6	184				2.3	2.3
Sun-30	7.6	7.8		7.6	296	117			2.8	2.8
Mon-31	7.5	7.6		7.6	428	41			3.0	3.0
Average	7.5	7.7	---	7.5	296	77	---	---	3.4	3.4
Minimum	7.3	7.3	---	7.4	184	34	---	---	2.0	2.0
Maximum	7.8	8.0	---	7.7	512	202	---	---	6.6	6.6
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5+$cBOD_5$ (mg/L) RAW BOD_5	OUTFALL 30 BOD_5	OUTFALL 20 BOD_5	IP/IPS 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
Sat-01	158	115			4	4	5.12	4.01			0.32	0.32
Sun-02	375				4	4	8.76				0.35	0.35
Mon-03	278	178			4	4	7.58	7.27			0.41	0.41
Tue-04	302				2	2	7.00				0.29	0.29
Wed-05	279				< 2	< 2	7.46				0.27	0.27
Thu-06	340				2	2	7.50				0.25	0.25
Fri-07	291				2	2	7.82				0.26	0.26
Sat-08	314				2	2	7.98				0.24	0.24
Sun-09	296				2	2	7.97				0.23	0.23
Mon-10	281	366			2	2	8.16	10.2			0.24	0.24
Tue-11	365				2	2	8.73				0.24	0.24
Wed-12	304				2	2	8.70				0.26	0.26
Thu-13	265				3	3	7.43				0.27	0.27
Fri-14	275				2	2	8.25				0.26	0.26
Sat-15	303				3	3	8.06				0.25	0.25
Sun-16	316	58			2	2	5.66	2.98			0.59	0.59
Mon-17	247	214			2	2	6.00	6.21			0.25	0.25
Tue-18	101	49			< 2	< 2	2.53	2.03			0.21	0.21
Wed-19	184	40			< 2	< 2	6.00	3.48			0.20	0.20
Thu-20	225				< 2	< 2	6.79				0.25	0.25
Fri-21	233				< 2	< 2	7.02				0.24	0.24
Sat-22	221				< 2	< 2	7.25				0.23	0.23
Sun-23	242				2	2	7.58				0.21	0.21
Mon-24	119	49			< 2	< 2	2.86	1.46			0.14	0.14
Tue-25	248	48			< 2	< 2	6.40	2.14			0.09	0.09
Wed-26	135	38			< 2	< 2	4.39	2.62			0.21	0.21
Thu-27	191	42			< 2	< 2	5.34	2.92			0.20	0.20
Fri-28	185	81			< 2	< 2	5.79	4.61			0.22	0.22
Sat-29	212				< 2	< 2	6.12				0.20	0.20
Sun-30	213	213			< 2	< 2	6.29	6.38			0.20	0.20
Mon-31	190	34			< 2	< 2	4.95	1.74			0.19	0.19
Average	248	109	---	---	2.3	2.3	6.68	4.15	---	---	0.25	0.25
Minimum	101	34	---	---	< 2	2	2.53	1.46	---	---	0.09	0.09
Maximum	375	366	---	---	4	4	8.76	10.2	---	---	0.59	0.59
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3 OUTFALL 30	NH3 OUTFALL 20	NH3 EPEPS	NH3 OUTFALL 10 FEC	NH3 OUTFALL 10 FE	un-ionized NH3-N (mg/L) OUT-FAL 30	un-ionized NH3 OUT-FAL 20	un-ionized NH3 OUT-FAL 10	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Sat-01	23.4	34.9			0.38	0.38				30.2	32.3		1.7
Sun-02	26.1				0.67	0.67				47.1			2.0
Mon-03	35.0	42.2			1.45	1.45				46.4	45.2		2.7
Tue-04	33.8				1.09	1.09				44.1			2.4
Wed-05	32.8				1.37	1.37				43.4			2.5
Thu-06	33.9				1.13	1.13				43.1			2.2
Fri-07	32.3				0.82	0.82				46.4			2.0
Sat-08	32.4				0.67	0.67				48.4			2.0
Sun-09	31.5				0.85	0.85				49.3			2.2
Mon-10	32.8	43.9			0.78	0.78				51.5	57.1		2.1
Tue-11	32.1				0.84	0.84				51.0			2.1
Wed-12	33.7				1.04	1.04				50.9			2.3
Thu-13	31.5				2.20	2.20				44.6			3.3
Fri-14	34.3				2.89	2.89				48.9			4.3
Sat-15	33.9				3.01	3.01				46.0			3.8
Sun-16	17.2	12.9			1.54	1.54				33.4	16.3		2.6
Mon-17	28.1	31.4			1.76	1.76				32.1	37.6		2.9
Tue-18	9.5	16.5			0.54	0.54				11.8	18.6		1.3
Wed-19	25.6	30.9			1.11	1.11				36.2	30.8		2.0
Thu-20	28.1				1.61	1.61				40.3			2.9
Fri-21	27.9				0.98	0.98				40.7			2.3
Sat-22	28.2				0.78	0.78				40.1			1.9
Sun-23	27.6				0.51	0.51				43.6			1.8
Mon-24	10.0	19.4			0.31	0.31				18.2	21.0		1.4
Tue-25	24.6	24.5			0.21	0.21				39.0	29.5		1.4
Wed-26	14.5	21.5			0.18	0.18				24.9	27.2		1.6
Thu-27	20.8	25.0			0.11	0.11				31.0	29.3		1.2
Fri-28	23.8	31.6			0.37	0.37				34.2	37.6		1.7
Sat-29	26.7				0.24	0.24				38.3			1.4
Sun-30	22.1	29.2			0.58	0.58				32.8	39.6		1.7
Mon-31	14.3	13.8			0.38	0.38				28.4	15.7		1.4
Average	26.7	27.0	---	---	0.98	0.98	---	---	---	36.2	31.3	---	2.2
Minimum	9.5	12.9	---	---	0.11	0.11	---	---	---	11.8	15.7	---	1.2
Maximum	35.0	43.9	---	---	3.01	3.01	---	---	---	51.5	57.1	---	4.3
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) RWW X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Sat-01		0.56		11.2	79.2	84.3		98.1		1.1		4
Sun-02				9.66	81.2			86.7				6
Mon-03		0.02		12.9	87.7	93.3		91.2		3.7		6
Tue-04				11.7	88.3			94.7				8
Wed-05	< 0.01			12.6	85.0			99.1				10
Thu-06				10.8	84.8			99.5				4
Fri-07				11.6	87.8			97.7				10
Sat-08				10.3	82.7			97.1				9
Sun-09				11.0	79.5			91.2				5
Mon-10		0.10		10.4	88.5	94.3		87.8	1.6	0.6		4
Tue-11				10.8	85.3			93.1				8
Wed-12	< 0.01			10.9	98.2			94.2				6
Thu-13				8.89	87.0			95.1				9
Fri-14				9.02	87.6			95.3				4
Sat-15				9.40	80.0			96.2				6
Sun-16		0.29		7.39	55.5	38.4		77.1		0.2		12
Mon-17		0.30		9.89	81.3	87.4		79.6		7.5		11
Tue-18		0.95		5.01	36.1	49.6		65.0		5.6		8
Wed-19	< 0.01	0.11		9.90	79.4	89.2		72.8		0.4		14
Thu-20				10.5	88.1			91.4				13
Fri-21				10.3	83.1			97.8	2.8			13
Sat-22				10.4	80.9			92.1				10
Sun-23				11.2	78.6			88.5				2
Mon-24		0.79		7.11	42.2	57.0		67.4		1.2		11
Tue-25		0.05		9.58	82.9	85.9		75.6		1.3		8
Wed-26	0.38	0.11		9.18	59.5	66.5		86.1		1.3		22
Thu-27		0.07		7.72	72.2	73.2		69.0		1.0		2
Fri-28		0.03		9.95	82.0	87.2		89.9		1.5		7
Sat-29				10.1	82.6			88.1				7
Sun-30		0.07		11.2	74.5	81.5		90.1		2.8		9
Mon-31		0.20		8.09	62.6	54.2		76.9		0.8		5
Average	0.10	0.26	---	9.94	78.2	74.4	---	87.9				
Minimum	< 0.01	0.02	---	5.01	36.1	38.4	---	65.0	1.6	0.2	---	2
Maximum	0.38	0.95	---	12.9	98.2	94.3	---	100	2.8	7.5	---	22
GeoMean	---	---	---	---	---	---	---	---	2.1	1.3	---	7.2
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
105	105	100%	417	417	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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