PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
December 2022

Digested Sludge: Total Monthly Volume (ML)	66.5

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent					
			Non UV Disinfected			UV Disinfected		
		INFs	OUTFALL 30	OUTFALL 20	MPW	EPEPS	OUTFALL 10	
		RAW					FEC	FE
Thu-01	347.7	0.0	266.3	0.0	0.0	12.5	0.0	253.8	253.8
Fri-02	322.5	0.0	269.7	0.0	0.0	12.7	0.0	257.0	257.0
Sat-03	365.4	0.0	270.2	0.0	0.0	12.2	0.0	258.0	258.0
Sun-04	377.9	0.0	276.1	0.0	0.0	12.1	0.0	264.0	264.0
Mon-05	328.2	0.0	273.3	0.0	0.0	12.2	0.0	261.1	261.1
Tue-06	324.3	0.0	267.4	0.0	0.0	12.3	0.0	255.1	255.1
Wed-07	346.2	0.0	265.4	0.0	0.0	12.1	0.0	253.3	253.3
Thu-08	339.6	0.0	267.0	0.0	0.0	12.0	0.0	255.0	255.0
Fri-09	312.5	0.0	270.5	0.0	0.0	12.1	0.0	258.4	258.4
Sat-10	340.3	0.0	268.6	0.0	0.0	12.4	0.0	256.2	256.2
Sun-11	340.9	0.0	266.6	0.0	0.0	12.6	0.0	254.0	254.0
Mon-12	346.2	0.0	270.8	0.0	0.0	12.4	0.0	258.4	258.4
Tue-13	304.2	0.0	266.4	0.0	0.0	11.0	0.0	255.4	255.4
Wed-14	311.9	0.0	264.7	0.0	0.0	12.4	0.0	252.3	252.3
Thu-15	320.0	0.0	266.3	0.0	0.0	12.3	0.0	254.0	254.0
Fri-16	325.5	0.0	267.6	0.0	0.0	11.4	0.0	256.2	256.2
Sat-17	341.1	0.0	265.3	0.0	0.0	11.3	0.0	254.0	254.0
Sun-18	335.6	0.0	265.1	0.0	0.0	12.7	0.0	252.4	252.4
Mon-19	312.6	0.0	269.4	0.0	0.0	12.3	0.0	257.1	257.1
Tue-20	307.0	0.0	268.9	0.0	0.0	11.4	0.0	257.5	257.5
Wed-21	304.8	0.0	269.3	0.0	0.0	11.2	0.0	258.1	258.1
Thu-22	313.1	0.0	268.8	0.0	0.0	12.6	0.0	256.2	256.2
Fri-23	322.6	0.0	273.4	0.0	0.0	12.5	0.0	260.9	260.9
Sat-24	358.5	0.0	270.7	0.0	0.0	12.5	0.0	258.2	258.2
Sun-25	329.4	0.0	250.3	0.0	0.0	11.3	0.0	239.0	239.0
Mon-26	329.9	0.0	254.7	0.0	0.0	11.5	0.0	243.2	243.2
Tue-27	326.4	0.0	266.6	0.0	0.0	12.3	0.0	254.3	254.3
Wed-28	318.7	0.0	270.4	0.0	0.0	11.0	0.0	259.4	259.4
Thu-29	347.0	0.0	272.3	0.0	0.0	11.8	0.0	260.5	260.5
Fri-30	341.6	0.0	274.4	0.0	0.0	12.3	0.0	262.1	262.1
Sat-31	363.6	0.0	274.2	0.0	0.0	12.1	0.0	262.1	262.1
Average	332.4	0.0	268.1	0.0	0.0	12.0	0.0	256.0	256.0
Minimum	304.2	0.0	250.3	0.0	0.0	11.0	0.0	239.0	239.0
Maximum	377.9	0.0	276.1	0.0	0.0	12.7	0.0	264.0	264.0
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,311	0	0	374	0	7,937	7,937

Liquid Stream Quality

DATE	pH@25°C				TSS (mg/L)					BOD$_5$/cBOD$_5$ (mg/L)						TP (mg/L)					NH3-N (mg/L)					TKN (mg/L)				NO$_2$+NO$_3$ (mg/L)				Chloride (mg/L)				*E. coli* (Counts/100 mL)			
	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10		RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10		RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10
				FEC					FEC	BOD$_5$	BOD$_5$	BOD$_5$	BOD$_5$	cBOD$_5$	cBOD$_5$					FEC					FEC				FEC							FEC				X10^6	X10^6	X10^6	FEC
Thu-01	7.6			7.5	280				3.6	3.6	332				3	3	7.99				0.27	0.27	39.2				1.52	1.52	65.8			3.1				11.3	85.7			97.3	2.7			4
Fri-02	7.5			7.5	296				3.5	3.5	307				3	3	7.17				0.30	0.30	39.6				1.66	1.66	60.9			3.3				11.7	83.1			95.8				2
Sat-03	7.5			7.5	292				3.7	3.7	248				3	3	7.89				0.28	0.28	39.5				1.89	1.89	64.9			3.4				11.3	75.4			90.7				6
Sun-04	7.4			7.6	289				4.2	4.2	389				3	3	7.59				0.26	0.26	30.4				2.07	2.07	65.3			4.1				10.6	87.3			85.5				1
Mon-05	7.6			7.5	260				3.2	3.2	309				4	4	7.19				0.27	0.27	30.4				1.20	1.20	61.1			3.4				10.0	102			94.2				1
Tue-06	7.5			7.5	280				2.8	2.8	311				3	3	7.34				0.27	0.27	38.5				1.15	1.15	59.4			3.1				9.97	82.9			104				4
Wed-07	7.4			7.5	303				3.5	3.5	301				3	3	7.34				0.28	0.28	38.2				1.27	1.27	60.4			2.8	< 0.01			11.3	89.6			92.4				3
Thu-08	7.4			7.7	328				3.8	3.8	313				3	3	7.35				0.27	0.27	38.6				0.88	0.88	64.2			2.6				11.6	108			104				3
Fri-09	7.5			7.7	300				3.1	3.1	316				2	2	7.16				0.24	0.24	35.5				0.84	0.84	58.0			2.2				9.57	115			122				4
Sat-10	7.5			7.5	280				3.3	3.3	301				2	2	6.49				0.24	0.24	34.9				1.07	1.07	54.4			2.5				8.59	103			125				2
Sun-11	7.6			7.6	277				3.1	3.1	344				3	3	6.65				0.23	0.23	32.8				1.56	1.56	52.4			2.7				9.61	97.9			114				1
Mon-12	7.4			7.5	314				3.6	3.6	350				3	3	6.44				0.21	0.21	37.4				1.36	1.36	52.7			2.5				9.92	106			108	2.7			3
Tue-13	7.4			7.6	344				2.9	2.9	351				2	2	6.94				0.23	0.23	33.6				1.36	1.36	53.1			2.6				8.42	111			117				1
Wed-14	7.6			7.6	280				3.7	3.7	304				2	2	6.59				0.23	0.23	37.5				1.56	1.56	54.4			3.1	< 0.07			8.67	136			122	2.6			1
Thu-15	7.5			7.5	264				3.2	3.2	336				2	2	7.23				0.25	0.25	37.2				1.28	1.28	58.1			2.6				8.62	127			135				1
Fri-16	7.6			7.6	328				3.6	3.6	345				2	2	7.13				0.22	0.22	39.3				1.08	1.08	51.3			2.5				9.03	135			132				3
Sat-17	7.4			7.5	360				3.0	3.0	322				3	3	7.28				0.23	0.23	39.4				1.41	1.41	57.1			2.7				8.63	142			147				1
Sun-18	7.6			7.6	328				4.5	4.5	305				4	4	6.89				0.25	0.25	40.2				1.42	1.42	58.0			3.5				9.33	103			130				5
Mon-19	7.6			7.6	300				2.7	2.7	351				3	3	7.23				0.26	0.26	39.4				1.97	1.97	56.8			3.6				8.82	96.4			106				4
Tue-20	7.4			7.6	380				4.0	4.0	310				2	2	7.75				0.26	0.26	38.5				0.92	0.92	62.6			2.7				9.31	88.2			106				4
Wed-21	7.5			7.5	320				3.5	3.5	324				2	2	7.92				0.27	0.27	40.5				1.01	1.01	64.0			3.0	< 0.01			6.31	82.7			102				5
Thu-22	7.5			7.5	320				5.4	5.4	309				2	2	7.83				0.30	0.30	38.8				1.34	1.34	63.5			3.4				8.86	76.3			94.2				3
Fri-23	7.6			7.6	348				3.0	3.0	373				3	3	7.99				0.25	0.25	38.4				1.58	1.58	68.3			3.4				8.44	76.7			88.9				6
Sat-24	7.5			7.5	332				3.3	3.3	381				3	3	7.90				0.25	0.25	34.6				1.69	1.69	69.0			3.6				8.27	76.1			89.3				4
Sun-25	7.7			7.7	416				2.9	2.9	369				3	3	7.54				0.20	0.20	40.4				1.50	1.50	67.1			3.2				7.06	82.5			83.9				6
Mon-26	7.6			7.6	352				3.5	3.5	384				2	2	7.33				0.20	0.20	41.6				1.83	1.83	67.1			3.6				8.47	94.8			88.7				2
Tue-27	7.8			7.8	360				3.0	3.0	342				2	2	7.84				0.20	0.20	31.5				1.53	1.53	69.2			3.8				9.40	119			102				4
Wed-28	7.5			7.5	416				2.7	2.7	354				2	2	8.15				0.21	0.21	37.2				1.28	1.28	70.3			3.4	0.02			9.64	140			124				4
Thu-29	7.6			7.6	367				3.5	3.5	377				3	3	7.48				0.26	0.26	36.0				1.06	1.06	60.5			3.1				8.30	150			157				4
Fri-30	7.6			7.5	368				2.9	2.9	394				3	3	6.73				0.24	0.24	33.1				1.84	1.84	62.0			3.9				7.97	148			173				4
Sat-31	7.6			7.6	396				3.2	3.2	378				3	3	7.00				0.24	0.24	36.9				4.12	4.12	54.2			5.6				6.86	115			164				4
Average	7.5	---	---	7.6	325	---	---	---	3.4	3.4	336	---	---	---	2.7	2.7	7.33	---	---	---	0.25	0.25	37.1	---	---	---	1.49	1.49	60.8	---	---	3.2	< 0.03	---	---	9.22	104	---	---	113				
Minimum	7.4	---	---	7.5	260	---	---	---	2.7	2.7	248	---	---	---	2.0	2.0	6.44	---	---	---	0.20	0.20	30.4	---	---	---	0.84	0.84	51.3	---	---	2.2	< 0.01	---	---	6.31	75.4	---	---	83.9	2.6	---	---	1
Maximum	7.6	---	---	7.8	416	---	---	---	5.4	5.4	394	---	---	---	4.0	4.0	8.15	---	---	---	0.30	0.30	41.6	---	---	---	4.12	4.12	70.3	---	---	5.6	< 0.07	---	---	11.7	150	---	---	173	2.7	---	---	6
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.7	---	---	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
0	0	100%	642	642	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

Alfredo Suarez M.Sc., P.Eng.
Senior Manager, Operations

Jeff Charrois PhD
Senior Manager, Analytical Operations & Process Development Teams