PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
October 2018

Digested Sludge: Total Monthly Volume (ML)	64.30

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent					
			Non UV Disinfected			UV Disinfected		
		RAW	OUTFALL 30	OUTFALL 20	MPW	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE
Mon 01	384.4	269.0	0.0	0.0	12.2	0.0	256.8	256.8
Tue 02	345.5	264.0	0.0	0.0	12.1	0.0	251.9	251.9
Wed 03	342.2	266.0	0.0	0.0	12.2	0.0	253.8	253.8
Thu 04	345.5	265.2	0.0	0.0	12.2	0.0	253.0	253.0
Fri 05	359.8	263.3	0.0	0.0	12.1	0.0	251.2	251.2
Sat 06	370.2	258.7	0.0	0.0	12.2	0.0	246.5	246.5
Sun 07	395.5	255.8	0.0	0.0	12.2	0.0	243.6	243.6
Mon 08	423.6	310.9	7.1	0.0	12.2	0.0	291.6	291.6
Tue 09	366.5	265.4	0.0	0.0	12.1	0.0	253.3	253.3
Wed 10	464.1	261.5	0.0	0.0	12.0	0.0	249.5	249.5
Thu 11	420.6	273.6	0.0	0.0	12.0	0.0	261.6	261.6
Fri 12	621.7	420.5	95.1	0.0	12.0	0.0	313.4	313.4
Sat 13	392.9	293.0	0.2	0.0	12.1	0.0	280.7	280.7
Sun 14	401.7	270.4	0.0	0.0	12.0	0.0	258.4	258.4
Mon 15	380.1	268.9	0.0	0.0	11.9	0.0	257.0	257.0
Tue 16	370.2	259.9	0.0	0.0	11.9	0.0	248.0	248.0
Wed 17	346.8	265.8	0.0	0.0	12.2	0.0	253.6	253.6
Thu 18	339.9	258.9	0.0	0.0	12.1	0.0	246.8	246.8
Fri 19	352.2	254.3	0.0	0.0	12.2	0.0	242.1	242.1
Sat 20	378.8	257.2	0.0	0.0	12.0	0.0	245.2	245.2
Sun 21	378.8	255.0	0.0	0.0	11.8	0.0	243.2	243.2
Mon 22	353.9	260.0	0.0	0.0	11.6	0.0	248.4	248.4
Tue 23	344.2	255.2	0.0	0.0	10.6	0.0	244.6	244.6
Wed 24	339.1	258.1	0.0	0.0	11.4	0.0	246.7	246.7
Thu 25	343.6	254.1	0.0	0.0	11.6	0.0	242.5	242.5
Fri 26	338.5	257.6	0.0	0.0	10.6	0.0	247.0	247.0
Sat 27	360.5	253.5	0.0	0.0	5.2	0.0	248.3	248.3
Sun 28	412.1	258.8	0.0	0.0	0.0	0.0	258.8	258.8
Mon 29	356.0	257.3	0.0	0.0	0.0	0.0	257.3	257.3
Tue 30	333.1	251.3	0.0	0.0	0.0	0.0	251.3	251.3
Wed 31	331.3	247.9	0.0	0.0	0.0	0.0	247.9	247.9
Average	377.20	268.10	3.30	0.00	10.15	0.00	254.65	254.65
Minimum	331.30	247.90	0.00	0.00	0.00	0.00	242.10	242.10
Maximum	621.70	420.50	95.10	0.00	12.20	0.00	313.40	313.40
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	8,311	102	0	315	0	7,894	7,894

Liquid Stream Quality

DATE	pH@25°C				TSS (mg/L)						BOD$_5$/cBOD$_5$ (mg/L)						TP (mg/L)					
	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE	RAW BOD$_5$	OUTFALL 30 BOD$_5$	OUTFALL 20 BOD$_5$	EPEPS BOD$_5$	OUTFALL 10 FEC cBOD$_5$	OUTFALL 10 FE cBOD$_5$	RAW	OUTFALL 30	OUTFALL 20	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE
Mon 01	7.5			7.6	276				4.3	4.3	277				3	3	7.12				0.31	0.31
Tue 02	7.5			7.7	320				3.8	3.8	275				3	3	7.45				0.27	0.27
Wed 03	7.5			7.6	316				2.8	2.8	305				3	3	8.14				0.24	0.24
Thu 04	7.5			7.6	267				3.4	3.4	298				3	3	8.52				0.23	0.23
Fri 05	7.5			7.6	284				3.5	3.5	265				3	3	8.31				0.24	0.24
Sat 06	7.6			7.6	292				6.0	6.0	298				3	3	8.05				0.44	0.44
Sun 07	7.6			7.6	308				4.2	4.2	271				3	3	7.31				0.24	0.24
Mon 08	7.6	7.5		7.7	272	92			4.8	4.8	278	126			3	3	6.28	4.05			0.24	0.24
Tue 09	7.6			7.6	384				2.6	2.6	297				3	3	8.55				0.22	0.22
Wed 10	7.5			7.6	396				4.0	4.0	323				3	3	8.14				0.24	0.24
Thu 11	7.5			7.6	336				5.5	5.5	300				2	2	7.87				0.32	0.32
Fri 12	7.4	7.5		7.5	400	97			7.4	7.4	208	102			4	4	5.73	3.33			0.65	0.65
Sat 13	7.8	7.3		7.0	300	45			5.1	5.1	251	330			4	4	7.42	13.8			0.28	0.28
Sun 14	7.6			7.6	280				5.5	5.5	299				3	3	7.96				0.27	0.27
Mon 15	7.4			7.6	268				4.9	4.9	331				4	4	7.87				0.27	0.27
Tue 16	7.5			7.6	328				5.0	5.0	402				4	4	6.83				0.26	0.26
Wed 17	7.6			7.6	270				4.4	4.4	328				3	3	6.55				0.25	0.25
Thu 18	7.5			7.6	316				5.1	5.1	283				3	3	6.52				0.21	0.21
Fri 19	7.7			7.6	344				4.1	4.1	226				3	3	6.25				0.20	0.20
Sat 20	7.6			7.6	304				4.5	4.5	318				2	2	6.1				0.21	0.21
Sun 21	7.6			7.7	340				3.9	3.9	277				3	3	6.12				0.20	0.20
Mon 22	7.6			7.6	246				6.9	6.9	259				4	4	5.13				0.54	0.54
Tue 23	7.4			7.7	345				5.5	5.5	280				3	3	7.16				0.30	0.30
Wed 24	7.5			7.7	316				4.8	4.8	208				3	3	6.73				0.27	0.27
Thu 25	7.5			7.6	316				4.1	4.1	287				3	3	7.05				0.26	0.26
Fri 26	7.5			7.7	380				3.6	3.6	335				3	3	7.78				0.24	0.24
Sat 27	7.5			7.5	340				5.1	5.1	343				3	3	7.68				0.23	0.23
Sun 28	7.5			7.7	340				5.1	5.1	343				3	3	7.67				0.27	0.27
Mon 29	7.7			7.6	285				4.4	4.4	271				3	3	5.54				0.24	0.24
Tue 30	7.5			7.6	384				5.5	5.5	341				3	3	7.40				0.32	0.32
Wed 31	7.5			7.7	392				5.0	5.0	307				3	3	8.35				0.28	0.28
Average	7.5	7.4	---	7.6	321	78	---	---	4.7	4.7	293	186	---	---	3.1	3.1	7.21	7.06	---	---	0.28	0.28
Minimum	7.4	7.3	---	7.0	246	45	---	---	2.6	2.6	208	102	---	---	2.0	2.0	5.13	3.33	---	---	0.20	0.20
Maximum	7.8	7.5	---	7.7	400	97	---	---	7.4	7.4	402	330	---	---	4.0	4.0	8.55	13.8	---	---	0.65	0.65
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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	EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC	RAW	OUTFALL 30	OUTFALL 20	OUTFALL 10 FEC
Mon 01	35.5				2.98	2.98	52.9			4.58				10.7	77.0			74.5				8
Tue 02	33.8				1.15	1.15	50.4			2.77				7.38	79.6			83.2				14
Wed 03					2.50	2.50	56.9			3.89	< 0.15			8.82	76.4			82.7				9
Thu 04	43.0				2.60	2.60	59.0			4.30				9.14	77.2			80.9				5
Fri 05	37.8				2.75	2.75	55.2			3.82				10.0	74.1			81.3				6
Sat 06	38.5				3.33	3.33	57.4			4.84				10.6	67.0			88.2				10
Sun 07	43.7				3.35	3.35	52.8			4.98				11.6	75.6			75.1				9
Mon 08	32.1	38.9			3.98	3.98	43.3	49.0		5.76		1.24		8.25	168	180		116		1.3		8
Tue 09	38.2				3.37	3.37	58.6			5.41				8.79	95.1			140				4
Wed 10	42.8				3.62	3.62	55.6			5.14	< 0.01			9.03	90.5			99.7				9
Thu 11	35.3				3.53	3.53	53.6			6.11				8.79	82.8			95.2				11
Fri 12	25.6	23.7			1.67	1.67	37.4	31.3		3.79		1.36		8.41	78.7	75.5		97.3		0.5		11
Sat 13	38.8	28.6			2.11	2.11	55.2	34.4		4.33		1.37		7.26	66.5	78.1		74.9		0.5		9
Sun 14	34.8				4.88	4.88	59.2			6.31				9.59	67.9			70.9				6
Mon 15	36.4				4.11	4.11	61.2			6.06				8.70	74.5			69.1				16
Tue 16	29.4				1.64	1.64	52.8			3.42				6.62	79.2			78.0				8
Wed 17	36.5				1.60	1.60	54.2			3.28	< 0.01			7.27	76.2			81.9				4
Thu 18	38.4				1.36	1.36	53.8			2.87				7.65	74.5			84.6				5
Fri 19	36.2				1.36	1.36	51.3			2.90				7.08	73.3			81.3				6
Sat 20	36.4				1.04	1.04	49.3			2.86				7.28	72.5			78.5				5
Sun 21	37.2				1.60	1.60	52.5			3.05				7.43	71.8			76.3				7
Mon 22	26.5				1.03	1.03	41.5			2.81				8.38	60.2			73.0				6
Tue 23	37.4				1.13	1.13	59.1			2.86				7.48	74.7			80.3				5
Wed 24	33.3				0.83	0.83	54.0			2.68	0.03			7.67	71.7			78.4				4
Thu 25	34.4				0.93	0.93	55.6			2.71				7.95	77.8			80.0				2
Fri 26	39.8				1.25	1.25	59.2			2.73				8.03	74.1			82.9				5
Sat 27	42.3				1.88	1.88	56.3			3.49				8.97	68.5			81.6				5
Sun 28	39.1				2.30	2.30	59.6			4.08				9.21	74.7			76.3				1
Mon 29	29.6				1.44	1.44	46.2			3.20				7.30	63.0			78.0				9
Tue 30	37.6				0.33	0.33	58.6			2.24				7.22	74.3			80.3	3.2			5
Wed 31	33.6				0.25	0.25	65.4			2.06	0.08			7.36	72.7			79.6				6
Average	36.1	30.4	---	---	2.13	2.13	54.1	38.2	---	3.85	0.06	1.32	---	8.39	77.7	111	---	83.9	---	---	---	---
Minimum	25.6	23.7	---	---	0.25	0.25	37.4	31.3	---	2.06	0.01	1.24	---	6.62	60.2	75.5	---	69.1	3.2	0.5	---	1
Maximum	43.7	38.9	---	---	4.88	4.88	65.4	49.0	---	6.31	0.15	1.37	---	11.6	168	180	---	140	3.2	1.3	---	16
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.2	0.7	---	6
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* contact Laboratory for information about the quality assurance associated with the results

Enhanced Primary Treatment (EPT) Usage

Total Bypass (hrs)	EPT Usage (hrs)	%	Total Bypass YTD (hrs)	EPT Usage YTD	% Usage
14	14	100%	357	352	98.60%

Report Comments

1.	OUTFALL 30 - October 13, 2018: Recommended holding was exceeded prior to BOD analysis.

AEP Ref #**

** AEP - Alberta Environment & Parks

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 and Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient removal).

FEC	Combined pre-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

Abhishek Bhargava (mm/dd/yyyy)
Senior Manager, Operations

Shane Harnish (mm/dd/yyyy)
Senior Manager, Analytical Operations