PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
December 2018

Digested Sludge: Total Monthly Volume (ML)	72.59

Volume of Flow (ML)

DATE	Peak Flow (MLD)	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	322.9	242.5	0.0	0.0	12.1	0.0	230.4	230.4
Sun 02	324.6	243.3	0.0	0.0	11.8	0.0	231.5	231.5
Mon 03	326.9	247.2	0.0	0.0	11.7	0.0	235.5	235.5
Tue 04	328.8	251.5	0.0	0.0	11.7	0.0	239.8	239.8
Wed 05	317.3	248.2	0.0	0.0	11.8	0.0	236.4	236.4
Thu 06	317.0	243.8	0.0	0.0	11.7	0.0	232.1	232.1
Fri 07	327.4	238.5	0.0	0.0	11.5	0.0	227.0	227.0
Sat 08	336.3	247.6	0.0	0.0	11.3	0.0	236.3	236.3
Sun 09	335.5	245.8	0.0	0.0	11.0	0.0	234.8	234.8
Mon 10	338.9	262.3	0.0	0.0	10.2	0.0	252.1	252.1
Tue 11	348.6	260.5	0.0	0.0	10.5	0.0	250.0	250.0
Wed 12	332.2	254.4	0.0	0.0	10.4	0.0	244.0	244.0
Thu 13	303.2	243.5	0.0	0.0	10.6	0.0	232.9	232.9
Fri 14	312.9	248.0	0.0	0.0	11.8	0.0	236.2	236.2
Sat 15	341.9	247.3	0.0	0.0	11.9	0.0	235.4	235.4
Sun 16	335.4	241.1	0.0	0.0	11.4	0.0	229.7	229.7
Mon 17	309.7	249.3	0.0	0.0	11.5	0.0	237.8	237.8
Tue 18	312.0	248.2	0.0	0.0	11.2	0.0	237.0	237.0
Wed 19	315.6	243.8	0.0	0.0	11.4	0.0	232.4	232.4
Thu 20	298.4	244.0	0.0	0.0	11.4	0.0	232.6	232.6
Fri 21	297.2	248.3	0.0	0.0	10.6	0.0	237.7	237.7
Sat 22	344.5	244.3	0.0	0.0	10.6	0.0	233.7	233.7
Sun 23	348.7	243.0	0.0	0.0	10.6	0.0	232.4	232.4
Mon 24	331.2	247.9	0.0	0.0	10.6	0.0	237.3	237.3
Tue 25	301.9	229.3	0.0	0.0	11.5	0.0	217.8	217.8
Wed 26	289.9	220.6	0.0	0.0	11.6	0.0	209.0	209.0
Thu 27	292.5	234.0	0.0	0.0	10.9	0.0	223.1	223.1
Fri 28	314.9	246.2	0.0	0.0	10.7	0.0	235.5	235.5
Sat 29	317.8	234.7	0.0	0.0	10.4	0.0	224.3	224.3
Sun 30	351.8	235.3	0.0	0.0	10.5	0.0	224.8	224.8
Mon 31	354.1	240.7	0.0	0.0	10.4	0.0	230.3	230.3
Average	323.55	244.36	0.00	0.00	11.14	0.00	233.22	233.22
Minimum	289.90	220.60	0.00	0.00	10.20	0.00	209.00	209.00
Maximum	354.10	262.30	0.00	0.00	12.10	0.00	252.10	252.10
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	7,575	0	0	345	0	7,230	7,230

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	BOD_5/$cBOD_5$ RAW BOD_5	BOD_5 OUTFALL 30 BOD_5	BOD_5 OUTFALL 20 BOD_5	BOD_5 EPEPS BOD_5	$cBOD_5$ OUTFALL 10 FEC	$cBOD_5$ OUTFALL 10 FE
Sat 01	7.7			7.7	348				9.1	9.1	338				4	4
Sun 02	7.6			7.7	304				9.7	9.7	332				4	4
Mon 03	7.5			7.6	308				9.6	9.6	347				4	4
Tue 04	7.5			7.7	354				8.8	8.8	268				4	4
Wed 05	7.5			7.6	352				8.0	8.0	337				4	4
Thu 06	7.6			7.6	336				8.2	8.2	324				4	4
Fri 07	7.5			7.5	292				7.3	7.3	288				3	3
Sat 08	7.5			7.6	340				7.6	7.6	299				4	4
Sun 09	7.5			7.6	335				6.3	6.3	213				4	4
Mon 10	7.5			7.6	348				8.0	8.0	283				4	4
Tue 11	7.5			7.4	396				8.6	8.6	292				4	4
Wed 12	7.5			7.6	340				5.0	5.0	321				4	4
Thu 13	7.6			7.5	436				4.7	4.7	416				4	4
Fri 14	7.6			7.6	352				5.0	5.0	344				3	3
Sat 15	7.5			7.6	332				4.7	4.7	299				3	3
Sun 16	7.6			7.5	284				3.4	3.4	224				3	3
Mon 17	7.6			7.5	280				5.4	5.4	318				3	3
Tue 18	7.4			7.6	311				4.8	4.8	314				3	3
Wed 19	7.4			7.6	340				4.3	4.3	321				3	3
Thu 20	7.5			7.6	304				5.2	5.2	312				3	3
Fri 21	7.6			7.7	323				4.4	4.4	317				4	4
Sat 22	7.6			7.7	308				5.6	5.6	322				4	4
Sun 23	7.4			7.6	286				5.5	5.5	289				4	4
Mon 24	7.5			7.5	264				6.8	6.8	342				4	4
Tue 25	7.6			7.5	276				5.9	5.9	337				4	4
Wed 26	7.6			7.5	320				4.3	4.3	319				4	4
Thu 27	7.5			7.6	312				4.4	4.4	357				4	4
Fri 28	7.5			7.5	300				6.1	6.1	336				4	4
Sat 29	7.7			7.6	328				5.3	5.3	329				4	4
Sun 30	7.4			7.6	376				4.6	4.6	291				4	4
Mon 31	7.5			7.5	296				4.8	4.8	372				4	4
Average	7.5	---	---	7.6	325	---	---	---	6.2	6.2	316	---	---	---	3.7	3.7
Minimum	7.4	---	---	7.4	264	---	---	---	3.4	3.4	213	---	---	---	3.0	3.0
Maximum	7.7	---	---	7.7	436	---	---	---	9.7	9.7	416	---	---	---	4.0	4.0
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TP RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE	NH3-N RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	TKN RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC
Sat 01	6.77				0.37	0.37	36.1				1.83	1.83	56.0			5.58
Sun 02	6.66				0.46	0.46	38.4				3.70	3.70	58.4			5.91
Mon 03	6.25				0.46	0.46	35.0				2.07	2.07	53.6			4.60
Tue 04	6.53				0.41	0.41	38.2				2.29	2.29	55.0			4.32
Wed 05	6.94				0.42	0.42	33.2				1.08	1.08	54.4			3.87
Thu 06	6.72				0.38	0.38	35.2				1.14	1.14	55.8			4.20
Fri 07	6.47				0.36	0.36	36.2				1.68	1.68	55.0			3.56
Sat 08	6.68				0.36	0.36	36.9				1.25	1.25	55.6			3.17
Sun 09	6.58				0.31	0.31	37.1				1.24	1.24	56.9			3.15
Mon 10	6.29				0.35	0.35	34.6				1.12	1.12	50.0			3.20
Tue 11	6.59				0.33	0.33	34.0				1.08	1.08	56.1			2.97
Wed 12	3.20				0.25	0.25	33.8				1.66	1.66	26.6			3.48
Thu 13	7.18				0.23	0.23	30.8				1.50	1.50	54.3			3.32
Fri 14	7.43				0.26	0.26	34.2				1.38	1.38	59.4			3.08
Sat 15	6.58				0.23	0.23	36.5				1.50	1.50	52.8			3.12
Sun 16	5.90				0.22	0.22	35.4				1.42	1.42	50.6			3.10
Mon 17	6.64				0.27	0.27	35.4				1.18	1.18	56.3			2.80
Tue 18	6.89				0.26	0.26	34.9				0.99	0.99	56.7			2.61
Wed 19	6.82				0.27	0.27	36.5				0.57	0.57	56.3			2.26
Thu 20	6.95				0.25	0.25	39.7				0.83	0.83	57.7			2.42
Fri 21	7.27				0.24	0.24	39.1				1.13	1.13	57.5			2.78
Sat 22	6.68				0.27	0.27	38.4				1.63	1.63	56.3			3.10
Sun 23	7.06				0.26	0.26	45.8				2.10	2.10	56.8			3.86
Mon 24	6.77				0.29	0.29	48.5				1.95	1.95	56.4			4.00
Tue 25	7.09				0.28	0.28	27.9				1.30	1.30	60.1			3.27
Wed 26	8.14				0.28	0.28	46.0				1.98	1.98	70.7			4.36
Thu 27	7.92				0.31	0.31	40.9				3.48	3.48	64.4			5.57
Fri 28	7.46				0.34	0.34	21.6				2.98	2.98	62.7			5.21
Sat 29	6.98				0.33	0.33	44.6				1.96	1.96	62.1			4.08
Sun 30	6.88				0.29	0.29	26.1				0.79	0.79	60.6			2.75
Mon 31	6.92				0.34	0.34	37.6				0.59	0.59	60.5			2.85
Average	6.75	---	---	---	0.31	0.31	36.4	---	---	---	1.59	1.59	56.3	---	---	3.63
Minimum	3.20	---	---	---	0.22	0.22	21.6	---	---	---	0.57	0.57	26.6	---	---	2.26
Maximum	8.14	---	---	---	0.46	0.46	48.5	---	---	---	3.70	3.70	70.7	---	---	5.91
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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* RAW X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Sat 01				7.21	116			131				25
Sun 02				8.42	116			132				30
Mon 03				8.33	134			125				16
Tue 04				6.66	130			131				24
Wed 05	< 0.01			8.18	117			135	4.0			14
Thu 06				7.93	108			123				14
Fri 07				8.94	102			114				18
Sat 08				9.93	93.6			110				17
Sun 09				10.2	84.6			93.5				10
Mon 10				10.2	184			104				13
Tue 11				8.75	147			187				16
Wed 12	0.13			8.35	121			158				14
Thu 13				8.83	111			127	3.0			12
Fri 14				9.94	116			119				24
Sat 15				9.93	106			127				13
Sun 16				9.82	82.1			106				12
Mon 17				10.4	81.9			89.0				10
Tue 18				10.4	88.7			89.0				16
Wed 19	< 0.01			10.2	82.0			93.4				9
Thu 20				9.45	86.0			95.1				9
Fri 21				8.86	99.1			93.8				11
Sat 22				8.88	96.9			103				12
Sun 23				8.63	89.9			99.4				8
Mon 24				9.30	94.1			95.9				7
Tue 25				10.2	78.0			96				7
Wed 26	< 0.01			11.6	90.9			89.0				9
Thu 27				10.7	98.9			95.3				7
Fri 28				11.0	108			111				7
Sat 29				9.89	104			113				8
Sun 30				11.1	97.0			118				7
Mon 31				11.0	88.2			102				6
Average	0.04	---	---	9.46	105	---	---	113	---	---	---	---
Minimum	0.01	---	---	6.66	78.0	---	---	89.0	3.0	---	---	6
Maximum	0.13	---	---	11.6	184	---	---	187	4.0	---	---	30
GeoMean	---	---	---	---	---	---	---	---	3.5	---	---	12
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 YTD
0	0	100%	378	373	98.70%

Report Comments

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
Senior Manager, Operations

Shane Harnish
Senior Manager, Analytical Operations