PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
November 2016

Digested Sludge: Total Monthly Volume (ML)	63.42

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent	Effluent: Non UV Disinfected		Effluent: UV Disinfected			
		RAW	OUTFALL30 BYPASS	MPW	OUTFALL20	EPEPS	OUTFALL10 FEC	OUTFALL10 FE
Tue 01	405.42	268.56	0.00	11.46	0.00	0.00	257.10	257.10
Wed 02	358.30	266.05	0.00	11.18	0.00	0.00	254.87	254.87
Thu 03	356.17	261.10	0.00	9.61	0.00	0.00	251.49	251.49
Fri 04	355.50	260.19	0.00	9.26	0.00	0.00	250.93	250.93
Sat 05	378.05	253.66	0.00	10.38	0.00	0.00	243.28	243.28
Sun 06	774.46	360.61	76.27	9.43	0.00	0.00	274.91	274.91
Mon 07	395.37	279.74	0.00	9.23	0.00	0.00	270.51	270.51
Tue 08	348.70	263.70	0.00	10.36	0.00	0.00	253.34	253.34
Wed 09	298.10	260.48	0.00	9.48	0.00	0.00	251.00	251.00
Thu 10	361.48	257.36	0.00	10.12	0.00	0.00	247.24	247.24
Fri 11	374.51	251.07	0.00	10.01	0.00	0.00	241.06	241.06
Sat 12	460.87	272.54	11.59	8.96	0.00	0.00	251.99	251.99
Sun 13	378.40	257.28	0.00	9.39	0.00	0.00	247.89	247.89
Mon 14	355.11	260.70	0.00	9.92	0.00	0.00	250.78	250.78
Tue 15	411.05	261.39	0.00	8.62	0.00	0.00	252.77	252.77
Wed 16	408.18	268.63	0.00	9.77	0.00	0.00	258.86	258.86
Thu 17	340.52	256.95	0.00	9.88	0.00	0.00	247.07	247.07
Fri 18	330.20	257.31	0.00	9.71	0.00	0.00	247.60	247.60
Sat 19	358.47	253.04	0.00	9.98	0.00	0.00	243.06	243.06
Sun 20	367.00	255.99	0.00	9.85	0.00	0.00	246.14	246.14
Mon 21	341.80	262.00	0.00	9.69	0.00	0.00	252.31	252.31
Tue 22	337.07	254.23	0.00	10.09	0.00	0.00	244.14	244.14
Wed 23	338.43	254.86	0.00	10.30	0.00	0.00	244.56	244.56
Thu 24	341.21	254.72	0.00	10.13	0.00	0.00	244.59	244.59
Fri 25	340.44	250.69	0.00	9.92	0.00	0.00	240.77	240.77
Sat 26	363.38	247.20	0.00	10.24	0.00	0.00	236.96	236.96
Sun 27	364.70	249.34	0.00	10.47	0.00	0.00	238.87	238.87
Mon 28	341.60	257.14	0.00	10.17	0.00	0.00	246.97	246.97
Tue 29	333.52	252.58	0.00	10.09	0.00	0.00	242.49	242.49
Wed 30	334.44	251.08	0.00	10.18	0.00	0.00	240.90	240.90
Average	375.08	262.01	2.93	9.93	0.00	0.00	249.15	249.15
Minimum	298.10	247.20	0.00	8.62	0.00	0.00	236.96	236.96
Maximum	774.46	360.61	76.27	11.46	0.00	0.00	274.91	274.91
GeoMean		---	---	---	---	---	---	---
TOTAL		---	7,860	88	298	0.00	0	7,474	7,474

Liquid Stream Quality

DATE	pH@25°C: RAW	pH@25°C: OUTFALL30	pH@25°C: OUTFALL20	pH@25°C: OUTFALL10 FEC
Tue 01	7.7			7.5
Wed 02	7.8			7.4
Thu 03	7.8			7.5
Fri 04	7.9			7.6
Sat 05	7.7			7.5
Sun 06	7.8	8.1		7.5
Mon 07	7.8			7.4
Tue 08	7.8			7.4
Wed 09	7.7			7.6
Thu 10	7.7			7.5
Fri 11	7.7			7.4
Sat 12	7.6	7.7		7.4
Sun 13	7.9			7.4
Mon 14	7.8			7.5
Tue 15	* 7.7			7.4
Wed 16	* 7.8			7.4
Thu 17	7.7			7.4
Fri 18	* 7.7			7.5
Sat 19	* 7.8			7.4
Sun 20	* 7.8			7.5
Mon 21	* 7.8			7.5
Tue 22	7.7			7.6
Wed 23	7.7			7.4
Thu 24	7.7			7.5
Fri 25	7.7			7.5
Sat 26	7.7			7.5
Sun 27	7.8			7.5
Mon 28	7.7			7.5
Tue 29	7.7			7.5
Wed 30	7.7			7.6
Average	7.7	7.9	---	7.5
Minimum	7.6	7.7	---	7.4
Maximum	7.9	8.1	---	7.6
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	TSS (mg/L): RAW	TSS (mg/L): OUTFALL30	TSS (mg/L): OUTFALL20	TSS (mg/L): EPEPS	TSS (mg/L): OUTFALL10 FEC	TSS (mg/L): OUTFALL10 FE
Tue 01	284				2.8	2.8
Wed 02	246				5.7	5.7
Thu 03	376				3.8	3.8
Fri 04	486				3.3	3.3
Sat 05	324				3.1	3.1
Sun 06	452	217			3.8	3.8
Mon 07	284				3.5	3.5
Tue 08	317				3.4	3.4
Wed 09	320				4.0	4.0
Thu 10	323				3.6	3.6
Fri 11	309				4.3	4.3
Sat 12	331	94.7			3.4	3.4
Sun 13	258				3.7	3.7
Mon 14	316				3.1	3.1
Tue 15	* 267				3.2	3.2
Wed 16	* 394				4.4	4.4
Thu 17	286				3.3	3.3
Fri 18	* 254				3.6	3.6
Sat 19	* 269				3.6	3.6
Sun 20	* 223				3.7	3.7
Mon 21	* 340				3.7	3.7
Tue 22	378				3.6	3.6
Wed 23	344				4.5	4.5
Thu 24	424				4.8	4.8
Fri 25	304				4.0	4.0
Sat 26	388				3.2	3.2
Sun 27	288				3.9	3.9
Mon 28	268				3.8	3.8
Tue 29	280				4.3	4.3
Wed 30	320				3.8	3.8
Average	322	156	---	---	3.8	3.8
Minimum	223	94.7	---	---	2.8	2.8
Maximum	486	217	---	---	5.7	5.7
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L): RAW	BOD_5: OUTFALL30	BOD_5: OUTFALL20	BOD_5: EPEPS	$cBOD_5$: OUTFALL10 FEC	$cBOD_5$: OUTFALL10 FE
Tue 01	320				2	2
Wed 02	322				< 2	< 2
Thu 03	306				2	2
Fri 04	307				2	2
Sat 05	289				3	3
Sun 06	265	132			3	3
Mon 07	295				2	2
Tue 08	330				2	2
Wed 09	293				2	2
Thu 10	254				3	3
Fri 11	287				3	3
Sat 12	307	149			3	3
Sun 13	374				3	3
Mon 14	275				4	4
Tue 15	* 290				4	4
Wed 16	* 260				< 2	< 2
Thu 17	231				4	4
Fri 18	* 272				4	4
Sat 19	* 264				5	5
Sun 20	* 302				5	5
Mon 21	* 283				4	4
Tue 22	300				4	4
Wed 23	310				4	4
Thu 24	305				4	4
Fri 25	321				4	4
Sat 26	304				5	5
Sun 27	271				4	4
Mon 28	284				5	5
Tue 29	287				4	4
Wed 30	292				5	5
Average	293	141	---	---	3	3
Minimum	231	132	---	---	< 2	< 2
Maximum	374	149	---	---	5	5
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TP (mg/L): RAW	TP (mg/L): OUTFALL30	TP (mg/L): OUTFALL20	TP (mg/L): EPEPS	TP (mg/L): OUTFALL10 FEC	TP (mg/L): OUTFALL10 FE
Tue 01	8.20				0.20	0.20
Wed 02	8.26				0.20	0.20
Thu 03	8.07				0.20	0.20
Fri 04	7.76				0.20	0.20
Sat 05	8.54				0.21	0.21
Sun 06	7.04	4.75			0.20	0.20
Mon 07	6.81				0.19	0.19
Tue 08	9.56				0.23	0.23
Wed 09	9.84				0.26	0.26
Thu 10	8.14				0.25	0.25
Fri 11	8.68				0.25	0.25
Sat 12	8.04	6.08			0.27	0.27
Sun 13	8.03				0.23	0.23
Mon 14	9.10				0.24	0.24
Tue 15	* 8.51				0.27	0.27
Wed 16	* 8.52				0.27	0.27
Thu 17	8.58				0.34	0.34
Fri 18	* 8.33				0.26	0.26
Sat 19	* 8.08				0.26	0.26
Sun 20	* 8.05				0.25	0.25
Mon 21	* 8.49				0.28	0.28
Tue 22	8.30				0.41	0.41
Wed 23	9.30				0.29	0.29
Thu 24	8.74				0.26	0.26
Fri 25	8.32				0.25	0.25
Sat 26	9.21				0.58	0.58
Sun 27	9.77				0.26	0.26
Mon 28	10.4				1.42	1.42
Tue 29	8.19				0.32	0.32
Wed 30	11.9				0.81	0.81
Average	8.63	5.42	---	---	0.32	0.32
Minimum	6.81	4.75	---	---	0.19	0.19
Maximum	11.9	6.08	---	---	1.42	1.42
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	NH3-N (mg/L): RAW	NH3-N (mg/L): OUTFALL30	NH3-N (mg/L): OUTFALL20	NH3-N (mg/L): EPEPS	NH3-N (mg/L): OUTFALL10 FEC	NH3-N (mg/L): OUTFALL10 FE
Tue 01	42.5				1.57	1.57
Wed 02	37.5				2.08	2.08
Thu 03	42.9				1.46	1.46
Fri 04	43.1				1.28	1.28
Sat 05	44.3				1.35	1.35
Sun 06	32.1	25.1			1.30	1.30
Mon 07	42.0				1.09	1.09
Tue 08	39.6				2.12	2.12
Wed 09	39.1				2.93	2.93
Thu 10	33.0				1.45	1.45
Fri 11	31.2				1.09	1.09
Sat 12	28.9	38.6			1.49	1.49
Sun 13	36.3				2.01	2.01
Mon 14	35.7				1.30	1.30
Tue 15	* 42.1				0.46	0.46
Wed 16	* 40.1				0.78	0.78
Thu 17	44.5				0.58	0.58
Fri 18	* 47.3				0.60	0.60
Sat 19	* 44.1				1.07	1.07
Sun 20	* 45.8				1.92	1.92
Mon 21	* 44.2				1.81	1.81
Tue 22	45.2				0.63	0.63
Wed 23	46.7				0.67	0.67
Thu 24	45.5				0.96	0.96
Fri 25	45.5				0.79	0.79
Sat 26	48.4				1.61	1.61
Sun 27	50.0				2.53	2.53
Mon 28	44.8				2.85	2.85
Tue 29	47.8				1.43	1.43
Wed 30	47.4				1.28	1.28
Average	41.9	31.9	---	---	1.42	1.42
Minimum	28.9	25.1	---	---	0.46	0.46
Maximum	50.0	38.6	---	---	2.93	2.93
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TKN (mg/L): RAW	TKN (mg/L): OUTFALL30	TKN (mg/L): OUTFALL20	TKN (mg/L): OUTFALL10 FEC
Tue 01	58.9			3.13
Wed 02	59.4			3.56
Thu 03	63.0			2.96
Fri 04	60.4			2.82
Sat 05	61.6			3.07
Sun 06	50.3	37.4		2.92
Mon 07	49.4			2.26
Tue 08	66.1			4.00
Wed 09	69.0			5.25
Thu 10	60.7			3.49
Fri 11	64.9			2.99
Sat 12	61.5	56.0		3.32
Sun 13	62.0			3.52
Mon 14	68.3			2.87
Tue 15	* 60.9			2.28
Wed 16	* 61.7			2.41
Thu 17	62.9			2.14
Fri 18	* 66.4			2.40
Sat 19	* 63.5			2.97
Sun 20	* 65.0			3.83
Mon 21	* 66.9			3.79
Tue 22	67.9			2.30
Wed 23	70.1			2.43
Thu 24	69.1			2.83
Fri 25	66.2			2.61
Sat 26	71.7			3.55
Sun 27	72.2			4.86
Mon 28	64.2			4.72
Tue 29	66.4			3.45
Wed 30	68.2			3.09
Average	64.0	46.7	---	3.19
Minimum	49.4	37.4	---	2.14
Maximum	72.2	56.0	---	5.25
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	NO_2+NO_3 (mg/L): RAW	NO_2+NO_3: OUTFALL30	NO_2+NO_3: OUTFALL20	NO_2+NO_3: OUTFALL10 FEC
Tue 01				11.6
Wed 02	< 0.01			12.4
Thu 03				12.7
Fri 04				12.1
Sat 05				12.0
Sun 06		1.50		13.5
Mon 07				10.9
Tue 08				12.7
Wed 09	< 0.01			15.5
Thu 10				15.5
Fri 11				16.0
Sat 12		1.84		15.0
Sun 13				12.7
Mon 14				13.7
Tue 15				13.9
Wed 16	* < 0.01			14.8
Thu 17				13.1
Fri 18				12.2
Sat 19				14.5
Sun 20				14.8
Mon 21				12.5
Tue 22				14.1
Wed 23	< 0.01			14.8
Thu 24				15.2
Fri 25				13.0
Sat 26				13.1
Sun 27				13.1
Mon 28				11.7
Tue 29				10.8
Wed 30	< 0.01			12.0
Average	< 0.01	1.67	---	13.3
Minimum	< 0.01	1.50	---	10.8
Maximum	< 0.01	1.84	---	16.0
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	Chloride (mg/L): RAW	Chloride: OUTFALL30	Chloride: OUTFALL20	Chloride: OUTFALL10 FEC
Tue 01	84.0			82.5
Wed 02	71.2			82.2
Thu 03	85.3			84.2
Fri 04	86.7			85.6
Sat 05	83.7			86.6
Sun 06	66.1	60.3		83.7
Mon 07	80.9			66.9
Tue 08	80.2			82.8
Wed 09	81.8			82.6
Thu 10	81.1			86.3
Fri 11	81.3			84.1
Sat 12	78.3	78.0		81.6
Sun 13	73.4			78.9
Mon 14	81.7			76.9
Tue 15	* 85.6			89.2
Wed 16	* 80.5			84.0
Thu 17	81.4			81.8
Fri 18	* 82.5			84.5
Sat 19	* 76.1			83.4
Sun 20	* 79.0			78.4
Mon 21	* 82.2			83.3
Tue 22	89.2			91.8
Wed 23	86.2			89.5
Thu 24	100			88.8
Fri 25	77.4			85.6
Sat 26	82.3			87.6
Sun 27	81.3			84.2
Mon 28	80.8			76.7
Tue 29	76.6			86.8
Wed 30	77.8			84.4
Average	81.2	69.2	---	83.5
Minimum	66.1	60.3	---	66.9
Maximum	100	78.0	---	91.8
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	*E. coli* (Counts/100 mL): RAW	*E. coli*: OUTFALL30	*E. coli*: OUTFALL20	*E. coli*: OUTFALL10 FEC
Tue 01				21
Wed 02				29
Thu 03				25
Fri 04				13
Sat 05				9
Sun 06		2.6		20
Mon 07				24
Tue 08				20
Wed 09				16
Thu 10				20
Fri 11				10
Sat 12		2.6		12
Sun 13				15
Mon 14				11
Tue 15				17
Wed 16				17
Thu 17	3.4			7
Fri 18				16
Sat 19				23
Sun 20				14
Mon 21				16
Tue 22				12
Wed 23				18
Thu 24				13
Fri 25				17
Sat 26				14
Sun 27	8.0			16
Mon 28				20
Tue 29				4
Wed 30				13
Average	---	---	---	---
Minimum	3.4	2.6	---	4
Maximum	8.0	2.6	---	29
GeoMean	5.2	2.6	---	15
TOTAL	---	---	---	---

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

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	% Usage	Total Bypass YTD (hrs)	EPT Usage YTD	% Usage YTD
8	8	100%	438	438	100%

Report Comments

*	The RAW auto-sample temperatures were found to be above the limit of 10 °C on the following days: Nov. 15 = 11.9 °C; Nov. 16 = 17.5 °C; Nov. 18 = 16.9 °C; Nov. 19 = 17.3 °C; Nov. 20 = 17.9 °C; and Nov. 21 = 17.6 °C.

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 and Pump Station

Results taken from Outfall 10 Back Up autosampler

FE Final Effluent from secondary treatment process (with biological nutrient removal). Pre-Ultraviolet disinfection.

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.

12/21/2016

Abhishek Bhargava (mm/dd/yyyy)

Senior Manager, Operations

12/21/2016

Debra Long (mm/dd/yyyy)

Senior Manager, Analytical Operations