PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
September 2016

Digested Sludge: Total Monthly Volume (ML)	68.44

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUTFALL30 BYPASS	Effluent Non UV Disinfected MPW	Effluent UV Disinfected OUTFALL20	Effluent UV Disinfected EPEPS	Effluent UV Disinfected OUTFALL10 FEC	Effluent UV Disinfected OUTFALL10 FE
Thu 01	368.70	274.82	0.00	9.08	0.00	0.00	265.74	265.74
Fri 02	594.93	315.22	33.24	10.38	0.00	0.00	271.60	271.60
Sat 03	401.34	273.40	0.00	11.17	0.00	0.00	262.23	262.23
Sun 04	348.87	254.61	0.00	11.16	0.00	0.00	243.45	243.45
Mon 05	395.57	259.66	0.00	11.05	0.00	0.00	248.61	248.61
Tue 06	580.05	303.85	12.01	11.11	0.00	0.00	280.73	280.73
Wed 07	355.85	266.13	0.00	11.80	0.00	0.00	254.33	254.33
Thu 08	512.56	263.18	4.68	11.45	0.00	0.00	247.05	247.05
Fri 09	512.19	275.83	11.24	10.28	0.00	0.00	254.31	254.31
Sat 10	369.22	256.37	0.00	9.12	0.00	0.00	247.25	247.25
Sun 11	372.12	259.15	0.00	8.96	0.00	0.00	250.19	250.19
Mon 12	363.08	271.38	0.00	10.67	0.00	0.00	260.71	260.71
Tue 13	368.10	263.74	0.00	10.73	0.00	0.00	253.01	253.01
Wed 14	384.15	266.10	0.00	10.86	0.00	0.00	255.24	255.24
Thu 15	380.09	260.82	0.00	11.45	0.00	0.00	249.37	249.37
Fri 16	361.44	260.24	0.00	11.14	0.00	0.00	249.10	249.10
Sat 17	868.70	286.17	22.05	11.03	0.00	0.00	253.09	253.09
Sun 18	888.27	364.18	61.38	11.14	0.00	0.00	291.66	291.66
Mon 19	485.48	272.03	0.00	9.62	0.00	0.00	262.41	262.41
Tue 20	351.17	260.31	0.00	9.18	0.00	0.00	251.13	251.13
Wed 21	361.33	258.70	0.00	10.45	0.00	0.00	248.25	248.25
Thu 22	359.21	257.52	0.00	10.48	0.00	0.00	247.04	247.04
Fri 23	356.73	257.93	0.00	10.58	0.00	0.00	247.35	247.35
Sat 24	374.30	270.52	0.00	10.65	0.00	0.00	259.87	259.87
Sun 25	379.79	251.46	0.00	10.76	0.00	0.00	240.70	240.70
Mon 26	364.79	263.22	0.00	10.62	0.00	0.00	252.60	252.60
Tue 27	351.72	252.96	0.00	10.18	0.00	0.00	242.78	242.78
Wed 28	350.34	252.12	0.00	10.10	0.00	0.00	242.02	242.02
Thu 29	347.21	252.85	0.00	9.44	0.00	0.00	243.41	243.41
Fri 30	347.99	257.09	0.00	9.55	0.00	0.00	247.54	247.54
Average	428.51	269.39	4.82	10.47	0.00	0.00	254.09	254.09
Minimum	347.21	251.46	0.00	8.96	0.00	0.00	240.70	240.70
Maximum	888.27	364.18	61.38	11.80	0.00	0.00	291.66	291.66
GeoMean	—	—	—	—	—	—	—	—
TOTAL	—	8,082	145	314	0.00	0	7,623	7,623

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL30	pH@25°C OUTFALL10 FEC	TSS (mg/L) RAW	TSS OUTFALL30	TSS EPEPS	TSS OUTFALL10 FEC	TSS OUTFALL10 FE
Thu 01	7.6		7.5	251			3.6	3.6
Fri 02	7.6	7.5	7.5	357	71.0		3.7	3.7
Sat 03	7.6		7.6	264			3.0	3.0
Sun 04	7.7		7.4	242			3.4	3.4
Mon 05	7.7		7.5	254			4.1	4.1
Tue 06	7.6	7.6	7.5	330	63.0		4.2	4.2
Wed 07	7.7		7.5	310			2.8	2.8
Thu 08	7.7		7.5	400			3.3	3.3
Fri 09	7.7	7.6	7.4	348	84.0		3.7	3.7
Sat 10	7.8		7.5	344			3.7	3.7
Sun 11	7.6		7.5	243			3.9	3.9
Mon 12	7.7		7.5	324			4.3	4.3
Tue 13	7.6		7.5	352			4.9	4.9
Wed 14	7.6		7.9	280			3.9	3.9
Thu 15	7.8		7.5	242			3.5	3.5
Fri 16	7.6		7.6	269			3.6	3.6
Sat 17	7.8		7.6	286			4.5	4.5
Sun 18	7.6	8.2	7.4	277	266		5.3	5.3
Mon 19	7.6		7.5	332			4.5	4.5
Tue 20	7.7		7.5	268			4.1	4.1
Wed 21	7.7		7.6	268			3.9	3.9
Thu 22	7.7		7.6	364			3.7	3.7
Fri 23	7.7		7.5	328			3.9	3.9
Sat 24	7.6		7.6	282			3.5	3.5
Sun 25	7.6		7.6	250			3.1	3.1
Mon 26	7.7		7.6	276			4.4	4.4
Tue 27	7.6		7.5	298			2.7	2.7
Wed 28	7.6		7.5	325			3.7	3.7
Thu 29	7.8		7.5	314			3.6	3.6
Fri 30	7.6		7.6	304			3.3	3.3
Average	7.7	7.7	7.5	299	121	—	3.8	3.8
Minimum	7.6	7.5	7.4	242	63.0	—	2.7	2.7
Maximum	7.8	8.2	7.9	400	266	—	5.3	5.3
GeoMean	—	—	—	—	—	—	—	—
TOTAL	—	—	—	—	—	—	—	—

DATE	BOD₅/cBOD₅ (mg/L) RAW BOD₅	BOD OUTFALL30 BOD₅	BOD EPEPS BOD₅	BOD OUTFALL10 FEC cBOD₅	BOD OUTFALL10 FE cBOD₅	TP (mg/L) RAW	TP OUTFALL30	TP OUTFALL20	TP EPEPS	TP OUTFALL10 FEC	TP OUTFALL10 FE
Thu 01	322			3	3	6.74				0.21	0.21
Fri 02	281	130		3	3	5.90	3.56			0.21	0.21
Sat 03	240			3	3	5.13				0.17	0.17
Sun 04	261			3	3	4.94				0.15	0.15
Mon 05	262			3	3	5.74				0.15	0.15
Tue 06	279	172		3	3	5.93	3.80			0.16	0.16
Wed 07	298			3	3	8.33				0.16	0.16
Thu 08	247			4	4	8.04				0.19	0.19
Fri 09	284	146		2	2	6.81	6.06			0.18	0.18
Sat 10	286			4	4	8.24				0.16	0.16
Sun 11	261			4	4	8.93				0.22	0.22
Mon 12	273			5	5	8.68				0.23	0.23
Tue 13	293			5	5	6.92				0.21	0.21
Wed 14	302			6	6	5.77				0.22	0.22
Thu 15	250			6	6	5.58				0.20	0.20
Fri 16	254			6	6	5.57				0.20	0.20
Sat 17	333			7	7	8.40				0.23	0.23
Sun 18	* 298	123		6	6	6.62	3.88			0.29	0.29
Mon 19	301			6	6	7.47				0.26	0.26
Tue 20	302			5	5	7.81				0.24	0.24
Wed 21	287			7	7	8.99				0.23	0.23
Thu 22	366			6	6	8.52				0.24	0.24
Fri 23	386			6	6	7.43				0.20	0.20
Sat 24	294			6	6	6.06				0.19	0.19
Sun 25	256			6	6	6.31				0.19	0.19
Mon 26	260			6	6	7.07				0.21	0.21
Tue 27	344			6	6	6.97				0.21	0.21
Wed 28	314			6	6	7.13				0.22	0.22
Thu 29	320			6	6	6.80				0.22	0.22
Fri 30	327			6	6	7.09				0.21	0.21
Average	293	143	—	5	5	7.00	4.33	—	—	0.21	0.21
Minimum	240	123	—	2	2	4.94	3.56	—	—	0.15	0.15
Maximum	386	172	—	7	7	8.99	6.06	—	—	0.29	0.29
GeoMean	—	—	—	—	—	—	—	—	—	—	—
TOTAL	—	—	—	—	—	—	—	—	—	—	—

DATE	NH3-N (mg/L) RAW	NH3-N OUTFALL30	NH3-N EPEPS	NH3-N OUTFALL10 FEC	NH3-N OUTFALL10 FE	TKN (mg/L) RAW	TKN OUTFALL30	TKN OUTFALL10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL30	NO_2+NO_3 OUTFALL10 FEC	Chloride (mg/L) RAW	Chloride OUTFALL30	Chloride OUTFALL10 FEC	*E. coli* (Counts/100 mL) RAW X10^6	*E. coli* OUTFALL30 X10^6	*E. coli* OUTFALL10 FEC
Thu 01	28.8			0.20	0.20	49.4		1.64			10.1	78.4		86.0			35
Fri 02	28.7	25.6		0.14	0.14	45.6	32.2	1.52		0.05	10.3	70.9	65.4	80.3		2.9	15
Sat 03	29.6			0.13	0.13	41.9		1.42			7.1	63.7		67.4			16
Sun 04	31.5			0.13	0.13	41.9		1.46			8.2	66.9		68.4			11
Mon 05	15.5			0.21	0.21	49.6		1.62			9.3	73.6		69.9			15
Tue 06	27.9	26.5		0.15	0.15	47.4	35.8	1.50		0.14	8.2	72.7	60.4	70.1		2.3	28
Wed 07	40.9			0.33	0.33	57.8		1.74	< 0.01		10.1	79.9		77.7			13
Thu 08	39.1			0.31	0.31	55.3		1.97			13.7	78.4		85.5			19
Fri 09	33.0	34.5		0.27	0.27	47.0	46.2	1.96		0.96	13.6	69.4	80.5	85.3		3.7	13
Sat 10	34.0			0.50	0.50	57.5		2.17			14.6	75.7		83.5			18
Sun 11	42.9			1.01	1.01	60.5		2.64			14.2	77.2		79.3			9
Mon 12	40.6			0.75	0.75	55.2		2.41			13.2	77.1		78.2			35
Tue 13	42.0			0.09	0.09	49.7		1.52			14.2	86.6		85.1			27
Wed 14	33.4			0.07	0.07	42.9		1.38	0.01		12.5	77.9		84.0			50
Thu 15	33.1			0.06	0.06	43.9		1.40			10.1	78.4		79.1			12
Fri 16	32.3			0.06	0.06	49.2		1.72			9.3	72.9		84.4			7
Sat 17	43.1			0.27	0.27	59.1		1.98			11.3	76.5		76.8			11
Sun 18	32.7	14.8		0.74	0.74	43.6	22.9	2.22		2.85	9.5	51.4	29.8	63.3		1.8	15
Mon 19	40.9			0.55	0.55	52.2		1.98			11.6	72.7		66.2			25
Tue 20	41.1			0.15	0.15	60.5		1.93			12.7	74.6		78.3			10
Wed 21	42.9			0.66	0.66	68.1		2.61	< 0.01		11.7	78.5		84.8			* 15
Thu 22	39.7			0.72	0.72	65.3		2.84			11.1	74.6		78.5			6
Fri 23	45.0			0.60	0.60	69.0		2.37			10.3	83.0		76.9			7
Sat 24	38.9			0.67	0.42	57.0		2.48			9.2	66.8		81.0			10
Sun 25	41.2			1.16	1.16	60.5		2.99			9.7	69.8		72.4			10
Mon 26	41.3			0.72	0.72	66.8		2.55			10.6	84.2		72.1	5.1		22
Tue 27	40.5			0.29	0.29	62.4		1.96			11.6	74.1		80.7			12
Wed 28	40.7			0.27	0.27	64.8		2.00	< 0.01		12.9	72.7		82.6			11
Thu 29	41.5			0.38	0.38	63.2		2.08			12.8	73.7		79.4	3.5		11
Fri 30	39.0			0.17	0.17	62.6		1.67			11.5	72.3		81.0			16
Average	36.7	25.4	—	0.39	0.38	55.0	34.3	1.99	0.01	1.00	11.2	74.2	59.0	77.9	—	—	—
Minimum	15.5	14.8	—	0.06	0.06	41.9	22.9	1.38	< 0.01	0.05	7.1	51.4	29.8	63.3	3.5	1.8	6
Maximum	45.0	34.5	—	1.16	1.16	69.0	46.2	2.99	0.01	2.85	14.6	86.6	80.5	86.0	5.1	3.7	50
GeoMean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.2	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	% Usage YTD
18	18	100%	382	382	100.00%

Report Comments

*	September 21 Outfall 10 sample: *E. coli* s ample incubation temperature outside acceptance limits due to power shutdown during off-hours. Analysis repeated 19.25 hours after recommended sample holding time had expired.

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
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	Insufficent sample to run test

for **Abhishek Bhargava** (mm/dd/yyyy)
Senior Manager, Operations
10/26/2016

Debra Long (mm/dd/yyyy)
Senior Manager, Analytical Ops
10/26/2016