PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
June 2016

Digested Sludge: Total Monthly Volume (ML)	65.42

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 EPEEPS	Effluent UV Disinfected OUTFALL10 FEC	Effluent UV Disinfected OUTFALL10 FE
Wed 01	381.77	290.07	0.00	7.92		0.00	282.15	282.15
Thu 02	711.96	335.81	47.85	8.03		0.00	279.93	279.93
Fri 03	438.37	302.74	2.23	8.96		0.00	291.55	291.55
Sat 04	376.40	273.40	0.00	8.01		0.00	265.39	265.39
Sun 05	386.72	274.66	0.00	8.01		0.00	266.65	266.65
Mon 06	385.07	292.46	0.00	8.24		0.00	284.05	284.05
Tue 07	398.26	295.34	0.00	8.48		0.00	286.69	286.69
Wed 08	652.67	312.76	27.58	9.01		0.00	276.17	276.17
Thu 09	713.93	377.77	40.70	9.67		11.30	327.40	316.10
Fri 10	383.82	279.58	0.00	9.62		0.00	269.96	269.96
Sat 11	942.65	467.67	155.31	9.20		0.00	303.16	303.16
Sun 12	734.41	374.95	49.33	9.17		0.00	316.45	316.45
Mon 13	406.53	301.20	0.00	9.45		0.00	291.75	291.75
Tue 14	374.27	282.93	0.00	9.18		0.00	273.75	273.75
Wed 15	374.79	289.70	0.00	9.26		0.00	280.44	280.44
Thu 16	364.98	273.42	0.00	8.44		0.00	264.98	264.98
Fri 17	353.11	268.17	0.00	8.81		0.00	259.36	259.36
Sat 18	372.79	259.64	0.00	9.59		0.00	250.05	250.05
Sun 19	415.32	264.21	0.00	8.24		0.00	255.97	255.97
Mon 20	361.41	272.81	0.00	9.45		0.00	263.36	263.36
Tue 21	417.95	276.41	0.00	9.54		0.00	266.87	266.87
Wed 22	368.98	277.06	0.00	9.54		0.00	267.52	267.52
Thu 23	572.80	302.67	16.25	9.42		4.68	277.00	272.32
Fri 24	517.24	322.26	14.27	9.52		0.00	298.47	298.47
Sat 25	769.09	419.83	75.07	9.55		15.60	335.21	319.61
Sun 26	415.92	306.82	0.00	9.71		0.00	297.11	297.11
Mon 27	381.69	283.00	0.00	9.35		0.00	273.65	273.65
Tue 28	1,327.48	365.62	57.66	9.27	0.12	9.82	298.69	288.87
Wed 29	1,291.67	397.38	81.42	9.52		25.64	306.76	281.12
Thu 30	1,205.64	421.03	87.11	8.58		12.24	325.34	313.10
Average	559.92	315.38	21.83	9.01		2.64	284.53	281.88
Minimum	353.11	259.64	0.00	7.92		0.00	250.05	250.05
Maximum	1,327.48	467.67	155.31	9.71		25.64	335.21	319.61
GeoMean	---	---	---	---		---	---	---
TOTAL	---	9,461	655	270		79	8,536	8,457

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL30	pH@25°C OUTFALL20	pH@25°C OUTFALL10 FEC	TSS (mg/L) RAW	TSS (mg/L) OUTFALL30	TSS (mg/L) OUTFALL20	TSS (mg/L) EPEEPS	TSS (mg/L) OUTFALL10 FE	TSS (mg/L) OUTFALL10 FE
Wed 01	7.6			7.5	502				3.0	3.0
Thu 02	7.5	7.3		7.4	376	25.3			3.4	3.4
Fri 03	7.6			7.4	306				2.8	2.8
Sat 04	7.7			7.5	292				3.8	3.8
Sun 05	7.7			7.5	290				2.4	2.4
Mon 06	7.7			7.5	266				2.9	2.9
Tue 07	7.5			7.5	291				2.7	2.7
Wed 08	7.6	7.4		7.5	354	89.0			3.0	3.0
Thu 09	7.6	7.6		7.4	309	40.7		ns	4.6	4.8
Fri 10	7.7			7.4	284				3.7	3.7
Sat 11	7.5	7.6		7.4	564	44.8			3.1	3.1
Sun 12	7.7	7.9		7.3	254	33.8			2.5	2.5
Mon 13	7.7			7.5	266				3.1	3.1
Tue 14	7.7			7.6	297				2.9	2.9
Wed 15	7.7			7.6	266				2.0	2.0
Thu 16	7.7			7.6	297				1.9	1.9
Fri 17	7.7			7.6	306				2.3	2.3
Sat 18	7.6			7.6	266				2.2	2.2
Sun 19	7.6			7.5	298				3.1	3.1
Mon 20	7.6			7.6	242				2.1	2.1
Tue 21	7.7			7.6	296				2.4	2.4
Wed 22	7.7			7.6	255				1.5	1.5
Thu 23	7.6	7.5		7.6	314	74.0		ns	3.6	3.7
Fri 24	7.6	7.6		7.5	411	66.0			2.6	2.6
Sat 25	7.7	7.9		7.5	320	57.6		ns	5.0	5.2
Sun 26	7.6			7.4	241				2.0	2.0
Mon 27	7.7			7.6	282				2.1	2.1
Tue 28	7.6	7.4	7.4	7.5	428	66.4	438	ns	4.5	4.7
Wed 29	7.7	7.8		7.5	494	115		ns	4.9	5.3
Thu 30	7.5	7.7		7.4	376	94.0		ns	3.2	3.3
Average	7.6	7.6	7.4	7.5	325	64.2	438	---	3.0	3.0
Minimum	7.5	7.3	7.4	7.3	241	25.3	438	---	1.5	1.5
Maximum	7.7	7.9	7.4	7.6	564	115	438	---	5.0	5.3
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L) RAW BOD_5	BOD_5 OUTFALL30	BOD_5 OUTFALL20	BOD_5 EPEEPS	BOD_5 OUTFALL10 FEC $cBOD_5$	BOD_5 OUTFALL10 FE $cBOD_5$	TP (mg/L) RAW	TP OUTFALL30	TP OUTFALL20	TP EPEEPS	TP OUTFALL10 FEC	TP OUTFALL10 FE
Wed 01	347				< 2.0	< 2	7.45				0.18	0.18
Thu 02	132	64			3.0	3	5.39	1.89			0.20	0.20
Fri 03	375				2.0	2	5.02				0.18	0.18
Sat 04	251				2.0	2	5.56				0.19	0.19
Sun 05	288				2.0	2	5.46				0.23	0.23
Mon 06	332				3.0	3	5.95				0.23	0.23
Tue 07	319				2.0	2	6.58				0.20	0.20
Wed 08	301	118			3.0	3	5.92	3.93			0.27	0.27
Thu 09	196	68		ns	5.0	5	4.53	3.49		ns	0.29	0.30
Fri 10	284				3.0	3	6.43				0.18	0.18
Sat 11	181	47			2.0	2	5.65	1.43			0.20	0.20
Sun 12	202	51			< 2.0	< 2	4.76	1.52		0.57	0.16	0.16
Mon 13	235				< 2.0	< 2	6.68				0.13	0.13
Tue 14	267				2.0	2	6.50				0.14	0.14
Wed 15	238				2.0	2	5.81				0.16	0.16
Thu 16	265				2.0	2	5.89				0.17	0.17
Fri 17	241				< 2.0	< 2	6.40				0.16	0.16
Sat 18	257				< 2.0	< 2	6.04				0.19	0.19
Sun 19	226				< 2.0	< 2	5.88				0.17	0.17
Mon 20	239				2.0	2	5.86				0.17	0.17
Tue 21	247				2.0	2	5.96				0.19	0.19
Wed 22	199				< 2.0	< 2	6.68				0.18	0.18
Thu 23	272	99		ns	4.0	4	5.39	3.17		ns	0.27	0.27
Fri 24	232	122			< 2.0	< 2	4.84	4.17		ns	0.18	0.18
Sat 25	174	66		ns	5.0	5	3.62	2.33		ns	0.25	0.26
Sun 26	217				2.0	2	4.34				0.14	0.14
Mon 27	308				2.0	2	5.57				0.17	0.17
Tue 28	256	83	24	ns	4.0	4	5.89	3.20	1.52	ns	0.24	0.25
Wed 29	221	68		ns	6.0	7	4.63	3.03		1.40	0.30	0.20
Thu 30	182	56		ns	3.0	3	4.92	2.22		ns	0.24	0.25
Average	250	77	24	---	3	3	5.65	2.76	1.52	0.99	0.20	0.20
Minimum	132	47	24	---	< 2	< 2	3.62	1.43	1.52	0.57	0.13	0.13
Maximum	375	122	24	---	6	7	7.45	4.17	1.52	1.40	0.30	0.30
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH_3-N (mg/L) RAW	NH_3-N OUTFALL30	NH_3-N OUTFALL20	NH_3-N EPEEPS	NH_3-N OUTFALL10 FEC	NH_3-N OUTFALL10 FE	TKN (mg/L) RAW	TKN OUTFALL30	TKN OUTFALL20	TKN OUTFALL10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL30	NO_2+NO_3 OUTFALL20	NO_2+NO_3 OUTFALL10 FEC
Wed 01	30.1				0.42	0.42	52.5			1.92	< 0.01			11.6
Thu 02	25.6	25.9			0.55	0.55	39.4	30.3		1.94		0.03		11.1
Fri 03	26.3				0.54	0.54	40.7			2.00				10.4
Sat 04	31.8				1.16	1.16	44.4			2.34				11.4
Sun 05	32.8				1.00	1.00	46.5			2.58				10.8
Mon 06	31.8				0.92	0.92	48.5			2.46				11.2
Tue 07	24.4				0.80	0.80	44.1			2.40				12.0
Wed 08	27.7	33.1			0.72	0.72	47.2	41.8		2.25	< 0.01	0.05		10.1
Thu 09	24.3	28.9		ns	1.43	1.48	37.7	35.8		3.08		0.02		6.7
Fri 10	33.6				0.46	0.46	54.0			2.06				9.5
Sat 11	13.2	14.1			0.29	0.29	39.0	24.7		1.90		1.13		9.2
Sun 12	22.9	19.8		14.0	0.77	0.77	36.8	22.3		1.94		0.77		6.3
Mon 13	26.5				0.81	0.81	55.8			2.08				9.1
Tue 14	31.4				0.57	0.57	52.0			2.03				10.8
Wed 15	29.3				0.37	0.37	48.7			1.76	< 0.01			11.4
Thu 16	34.1				0.24	0.24	48.8			1.61				11.2
Fri 17	33.3				0.27	0.27	49.3			1.77				12.6
Sat 18	29.9				0.27	0.27	50.7			1.96				13.4
Sun 19	26.0				0.33	0.33	50.2			1.78				13.2
Mon 20	32.1				0.26	0.26	48.7			1.68				11.8
Tue 21	31.5				0.23	0.23	46.6			1.61				10.8
Wed 22	30.7				0.32	0.32	50.8			2.14	< 0.01			10.6
Thu 23	23.6	28.5		ns	0.80	0.81	41.6	36.1		2.48		0.63		9.9
Fri 24	24.3	32.0			0.20	0.20	38.1	39.4		1.62		0.67		9.1
Sat 25	13.2	21.4		ns	1.06	1.11	29.9	26.2		2.72		0.41		6.3
Sun 26	25.4				0.41	0.41	37.0			1.62				10.0
Mon 27	26.7				0.27	0.27	44.6			1.60				12.3
Tue 28	28.8	24.8	3.2	ns	1.46	1.51	44.9	33.8	6.2	3.00		1.06	###	11.0
Wed 29	18.6	23.0		18.5	2.26	0.78	33.1	29.8		3.72	< 0.01	0.43		9.5
Thu 30	18.2	20.2		ns	1.33	1.38	34.7	26.7		2.73		0.36		8.4
Average	26.9	24.7	3.2	16.3	0.68	0.64	44.5	31.5	6.2	2.16	< 0.01	0.51	###	10.4
Minimum	13.2	14.1	3.2	14.0	0.20	0.20	29.9	22.3	6.2	1.60	< 0.01	0.02	###	6.26
Maximum	34.1	33.1	3.2	18.5	2.26	1.51	55.8	41.8	6.2	3.72	< 0.01	1.13	###	13.4
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	Chloride (mg/L) RAW	Chloride OUTFALL30	Chloride OUTFALL20	Chloride OUTFALL10 FEC	*E. coli* (Counts/100 mL) RAW X10^6	*E. coli* OUTFALL30 X10^6	*E. coli* OUTFALL20 X10^6	*E. coli* OUTFALL10 FEC
Wed 01	73.6			78.5				6
Thu 02	62.5	64.7		80.8		1.3		10
Fri 03	72.4			72.0				16
Sat 04	69.9			77.9				8
Sun 05	68.1			73.8				21
Mon 06	75.3			71.6				20
Tue 07	67.3			76.6				15
Wed 08	73.1	80.9		82.3		0.20		13
Thu 09	56.5	60.8		68.2		1.8		86
Fri 10	67.7			70.9				10
Sat 11	48.4	46.6		73.0		0.51		6
Sun 12	54.9	42.9		51.3		0.62		2
Mon 13	67.3			64.3				10
Tue 14	72.7			76.1				6
Wed 15	75.2			79.3				18
Thu 16	72.8			72.9				9
Fri 17	67.4			77.8				6
Sat 18	68.8			78.5				43
Sun 19	67.4			73.5				5
Mon 20	68.5			76.0	3.8			21
Tue 21	71.1			80.2				5
Wed 22	73.7			78.5				14
Thu 23	65.7	61.7		79.3		3.1		10
Fri 24	59.0	70.1		71.1		1.5		19
Sat 25	60.8	49.4		61.6		1.6		8
Sun 26	57.9			59.4				6
Mon 27	71.2			68.1	3.7			9
Tue 28	63.3	47.7	9.0	74.0		2.7	0.2	6
Wed 29	50.5	48.0		63.1		1.0		300
Thu 30	56.8	46.8		63.2		0.73		15
Average	66.0	56.3	9.0	72.5	---	---	---	---
Minimum	48.4	42.9	9.0	51.3	3.7	0.2	0.2	2
Maximum	75.3	80.9	9.0	82.3	3.8	3.1	0.2	300
GeoMean	---	---	---	---	3.7	1.1	0.2	12
TOTAL	---	---	---	---	---	---	---	---

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

! The values in EPE (flow) column indicate wet weather events, then the OUT FAL 10 Average calculation exclude numbers for that day (grey/italics)
EPE volume calculated based on pump curve

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	% Usage	Total Bypass YTD (hrs)	EPT Usage	% Usage YTD
78	78	100%	224	224	100.00%

Report Comments

Outfall 10 *E. coli*	As per Operations Plan, the Outfall 10 monthly summary for *E. coli* excludes those days where flow recorded is for EPEPS.
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 OUTFAL 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)
OUT FAL 10 ⇨ UV-disinfected, discharged via OUTFAL 10
OUT FAL 20 ⇨ Combined Bypass (RAW + PE + EPE)
OUT FAL 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

07/29/2016
Abhishek Bhargava
Senior Manager, Operations
(mm/dd/yyyy)

07/28/2016
Debra Long
Senior Manager, Analytical Operations
(mm/dd/yyyy)