Gold Bar Waste Water Treatment Plant
Plant Performance Report
February 2016

Digested Sludge: Total Monthly Volume (ML)	61.71

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUT-FAL30 BYPASS	Effluent Non UV Disinfected MPW	Effluent UV Disinfected EPEPS	UV Disinfected OUTFAL 10 FEC	UV Disinfected OUTFAL 10 FE
Mon 01	344.58	250.20	0.00	8.80	0.00	241.40	241.40
Tue 02	349.88	244.98	0.00	9.33	0.00	235.65	235.65
Wed 03	341.89	243.69	0.00	10.29	0.00	233.40	233.40
Thu 04	335.30	242.81	0.00	10.04	0.00	232.77	232.77
Fri 05	346.99	244.15	0.00	9.54	0.00	234.61	234.61
Sat 06	421.30	250.84	0.00	8.68	0.00	242.16	242.16
Sun 07	370.89	246.93	0.00	9.62	0.00	237.31	237.31
Mon 08	401.82	256.82	0.00	9.48	0.00	247.34	247.34
Tue 09	417.08	269.17	0.00	8.86	0.00	260.31	260.31
Wed 10	343.23	244.95	0.00	9.87	0.00	235.08	235.08
Thu 11	341.87	244.64	0.00	9.87	0.00	234.77	234.77
Fri 12	338.67	245.06	0.00	8.81	0.00	236.25	236.25
Sat 13	**468.80**	**253.81**	**6.69**	**9.81**	**0.00**	**237.31**	**237.31**
Sun 14	420.17	247.51	0.00	10.44	0.00	237.07	237.07
Mon 15	**463.70**	**259.68**	**10.11**	**10.43**	**0.00**	**239.14**	**239.14**
Tue 16	404.37	261.00	0.00	9.47	0.00	251.53	251.53
Wed 17	349.49	249.73	0.00	9.93	0.00	239.80	239.80
Thu 18	345.81	241.97	0.00	9.95	0.00	232.02	232.02
Fri 19	336.05	239.53	0.00	9.67	0.00	229.86	229.86
Sat 20	366.09	236.18	0.00	10.70	0.00	225.48	225.48
Sun 21	396.38	241.28	0.00	11.13	0.00	230.15	230.15
Mon 22	354.32	250.47	0.00	11.77	0.00	238.70	238.70
Tue 23	350.73	241.64	0.00	11.08	0.00	230.56	230.56
Wed 24	343.56	239.50	0.00	9.56	0.00	229.94	229.94
Thu 25	423.07	257.49	0.00	9.32	0.00	248.17	248.17
Fri 26	**504.17**	**277.16**	**17.25**	**9.33**	**0.00**	**250.58**	**250.58**
Sat 27	**583.46**	**293.41**	**42.30**	**10.62**	**0.00**	**240.49**	**240.49**
Sun 28	363.56	242.90	0.00	9.24	0.00	233.66	233.66
Mon 29	340.93	240.23	0.00	9.63	0.00	230.60	230.60
Average	385.11	250.27	2.63	9.84	0.00	237.80	237.80
Minimum	335.30	236.18	0.00	8.68	0.00	225.48	225.48
Maximum	583.46	293.41	42.30	11.77	0.00	260.31	260.31
GeoMean	---	---	---	---	---	---	---
TOTAL	---	7,258	76	285	0	6,896	6,896

Liquid Stream Quality

DATE	pH@25°C RAW	pH OUT-FAL30	pH OUT-FAL10 FEC	TSS (mg/L) RAW	TSS OUT-FAL30	TSS EPEPS	TSS OUTFAL 10 FEC	TSS OUTFAL 10 FE	BOD_5/$cBOD_5$ (mg/L) RAW BOD_5	OUT-FAL30 BOD_5	EPEPS $cBOD_5$	OUTFAL 10 FEC $cBOD_5$	OUTFAL 10 FE $cBOD_5$
Mon 01	7.6		7.8	268			3.5	3.5	308			2	2
Tue 02	7.6		7.7	268			3.3	3.3	284			2	2
Wed 03	7.7		7.5	260			3.5	3.5	313			3	3
Thu 04	7.5		7.6	330			3.5	3.5	346			2	2
Fri 05	7.5		7.7	269			3.2	3.2	301			3	3
Sat 06	7.5		7.6	320			3.6	3.6	326			3	3
Sun 07	7.7		7.6	284			3.6	3.6	296			< 2	2
Mon 08	7.6		7.6	269			3.7	3.7	298			2	2
Tue 09	7.6		7.5	294			3.2	3.2	292			3	3
Wed 10	7.5		7.5	294			3.7	3.7	311			3	3
Thu 11	8.4		7.5	350			3.5	3.5	351			2	2
Fri 12	7.5		7.6	272			4.2	4.2	314			2	2
Sat 13	7.6	7.8	7.6	292	128		2.5	**2.5**	311	187		2	**2**
Sun 14	7.5		7.5	286			3.6	3.6	327			< 2	2
Mon 15	7.5	7.7	7.6	296	122		2.9	**2.9**	289	197		2	**2**
Tue 16	7.5		7.5	316			4.1	4.1	323			3	3
Wed 17	7.6		7.6	269			3.5	3.5	313			3	3
Thu 18	7.6		7.7	276			3.5	3.5	274			2	2
Fri 19	7.7		7.7	280			3.9	3.9	330			3	3
Sat 20	7.5		7.5	264			3.2	3.2	289			2	2
Sun 21	7.7		7.5	318			3.5	3.5	310			3	3
Mon 22	7.5		7.7	277			3.6	3.6	308			3	3
Tue 23	7.7		7.6	276			2.5	2.5	276			3	3
Wed 24	7.6		7.6	243			3.7	3.7	265			2	2
Thu 25	7.6		7.6	315			3.1	3.1	284			3	3
Fri 26	7.6	7.7	7.6	276	84		2.6	**2.6**	235	141		< 2	**2**
Sat 27	7.4	7.6	7.6	312	120		3.3	**3.3**	262	144		3	**3**
Sun 28	7.6		7.6	274			3.6	3.6	299			3	3
Mon 29	7.5		7.5	271			3.1	3.1	321			< 2	2
Average	7.6	7.7	7.6	287	114	---	3.4	3.4	302	167	---	2	2
Minimum	7.4	7.6	7.5	243	84	---	2.5	2.5	235	141	---	< 2	2
Maximum	8.4	7.8	7.8	350	128	---	4.2	4.2	351	197	---	3	3
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TP (mg/L) RAW	TP OUT-FAL30	TP EPEPS	TP OUTFAL 10 FEC	TP OUTFAL 10 FE	NH3-N (mg/L) RAW	NH3-N OUT-FAL30	NH3-N EPEPS	NH3-N OUTFAL 10 FEC	NH3-N OUTFAL 10 FE
Mon 01	7.68			0.36	0.36	36.3			1.81	1.81
Tue 02	8.82			0.26	0.26	33.6			1.35	1.35
Wed 03	7.22			0.34	0.34	34.0			1.13	1.13
Thu 04	6.76			0.28	0.28	33.9			1.03	1.03
Fri 05	6.64			0.29	0.29	31.0			0.41	0.41
Sat 06	6.87			0.24	0.24	35.2			1.83	1.83
Sun 07	7.01			0.28	0.28	36.6			3.32	3.32
Mon 08	7.22			0.24	0.24	35.9			3.19	3.19
Tue 09	6.40			0.26	0.26	30.7			2.78	2.78
Wed 10	7.39			0.32	0.32	33.9			1.73	1.73
Thu 11	7.32			0.26	0.26	38.0			1.96	1.96
Fri 12	7.44			0.26	0.26	31.7			2.01	2.01
Sat 13	6.84	6.65		0.19	**0.19**	35.9	45.5		2.78	**2.78**
Sun 14	6.69			0.21	0.21	34.2			3.28	3.28
Mon 15	7.29	7.25		0.21	**0.21**	36.4	51.3		3.37	**3.37**
Tue 16	6.92			0.22	0.22	34.9			4.00	4.00
Wed 17	6.64			0.22	0.22	36.0			4.37	4.37
Thu 18	7.24			0.25	0.25	33.4			3.02	3.02
Fri 19	7.14			0.26	0.26	36.0			1.94	1.94
Sat 20	7.23			0.23	0.23	37.1			1.88	1.88
Sun 21	8.42			0.24	0.24	33.9			2.40	2.40
Mon 22	7.02			0.18	0.18	35.2			1.82	1.82
Tue 23	7.23			0.22	0.22	36.2			1.14	1.14
Wed 24	6.79			0.22	0.22	34.7			1.23	1.23
Thu 25	7.36			0.24	0.24	31.5			1.68	1.68
Fri 26	6.37	6.05		0.20	**0.20**	31.4	40.5		1.95	**1.95**
Sat 27	5.79	5.70		0.20	**0.20**	29.3	36.3		1.23	**1.23**
Sun 28	6.24			0.18	0.18	34.1			1.61	1.61
Mon 29	6.58			0.26	0.26	33.3			2.37	2.37
Average	7.05	6.41	---	0.25	0.25	34.3	43.4	---	2.16	2.16
Minimum	5.79	5.70	---	0.18	0.18	29.3	36.3	---	0.41	0.41
Maximum	8.82	7.25	---	0.36	0.36	38.0	51.3	---	4.37	4.37
GeoMean	---	---	---	---	---	---	---	---		---
TOTAL	---	---	---	---	---	---	---	---		---

DATE	TKN (mg/L) RAW	TKN OUT-FAL30	TKN OUT-FAL10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUT-FAL30	NO_2+NO_3 OUT-FAL10 FEC	Chloride (mg/L) RAW	Chloride OUT-FAL30	Chloride OUT-FAL10 FEC	E. coli (Counts/100 mL) RAW X10^6	E. coli OUT-FAL30 X10^6	E. coli OUT-FAL10 FEC
Mon 01	56.4		3.44			9.0	84		82			15
Tue 02	52.6		3.04			9.7	86		90			4
Wed 03	51.8		2.69			10.2	88		95			7
Thu 04	48.8		2.53			9.4	78		92			4
Fri 05	48.8		1.86			11.1	78		85			5
Sat 06	48.5		3.28			8.5	105		88			5
Sun 07	50.6		4.76			8.6	72		106			4
Mon 08	55.6		5.23			9.9	99		87			7
Tue 09	48.9		4.80			8.3	151		109			3
Wed 10	54.8		3.57			7.9	105		165			5
Thu 11	55.8		3.66			8.0	154		125			2
Fri 12	56.9		4.02			8.0	99		155			5
Sat 13	55.5	60.8	4.58		0.036	8.9	222	453	126		0.05	9
Sun 14	54.2		5.01			7.0	142		213			5
Mon 15	54.8	65.9	4.98		0.031	8.2	138	169	168		0.66	4
Tue 16	50.0		5.60			7.3	126		144			4
Wed 17	48.6		5.93			7.2	98		134			6
Thu 18	52.1		4.82			7.0	95		107			2
Fri 19	54.0		3.50			8.6	86		102	1.1		6
Sat 20	53.1		3.66			8.4	80		98			4
Sun 21	51.6		3.50			8.6	93		90			3
Mon 22	50.8		3.11			8.2	99		94			3
Tue 23	56.2		2.35			8.1	88		100	1.6		5
Wed 24	52.6		2.78			8.4	86		93			6
Thu 25	52.6		3.50			8.5	97		89			4
Fri 26	48.9	52.4	3.67		0.305	8.3	97	107	97		0.20	5
Sat 27	45.4	48.7	2.87		0.023	7.4	110	131	105		0.53	2
Sun 28	41.9		3.41			7.1	70		106			5
Mon 29	54.7		4.05			7.9	81		79			6
Average	51.9	57.0	3.80	---	0.099	8.4	104	215	111	---	---	---
Minimum	41.9	48.7	1.86	---	0.023	7.0	70	107	79	1.1	0.1	2
Maximum	56.9	65.9	5.93	---	0.305	11.1	222	453	213	1.6	0.7	15
GeoMean	---	---	---	---	---	---	---	---	---	1.3	0.2	5
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

* contact

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

x - analysis performed at an ISO 17025 Accredited external laboratory.

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	% Usage	Total Bypass YTD (hrs)	EPT Usage YTD (hrs)	% Usage
14	14	100%	20	20	100.00%

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

Report Comments

AEP Ref #

03/30/2016
Abhishek Bhargava (mm/dd/yyyy)
Senior Manager, Operations

03/30/2016
Debra Long (mm/dd/yyyy)
Senior Manager, Analytical Operations