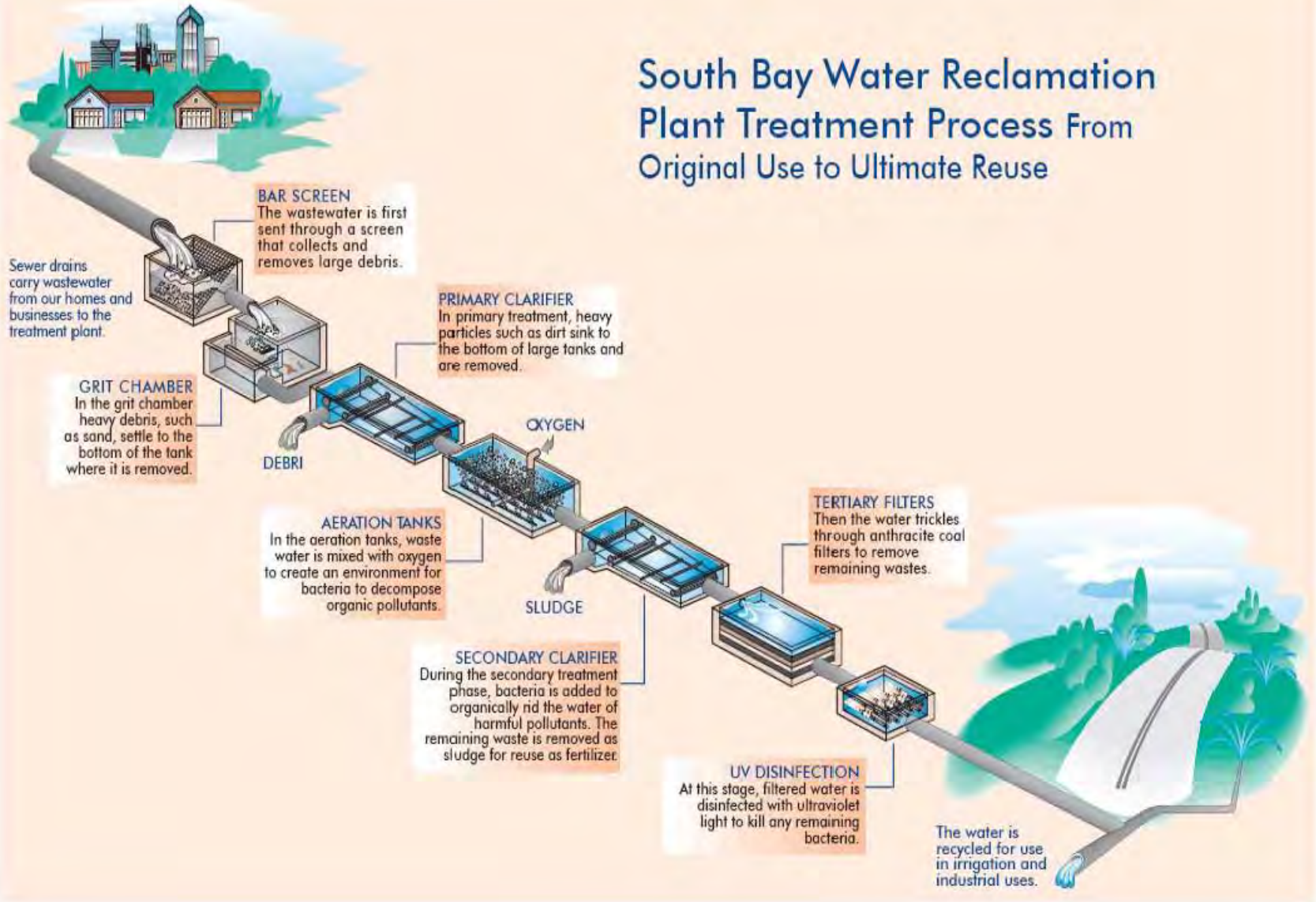


III. Plant Operations Summary

- A. Flows
- B. Rain Days
- C. Chemical Report
- D. Facilities Out of Service Report

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South Bay Water Reclamation Plant Treatment Process From Original Use to Ultimate Reuse



Overview of the Wastewater Treatment Process

Please see the treatment process flow diagram on the preceding page.

Debris, large particulates, and sand are removed in the headworks by mechanical bar-screens and aerated grit removal systems. The process then consists of classical primary sedimentation and secondary treatment by activated sludge. While secondary effluent may be discharged directly to the ocean outfall the usual process directs the treated secondary effluent to reclamation and beneficial reuse by tertiary treatment and disinfection. Even if not beneficially reused, most of the flow goes through tertiary treatment. Tertiary treatment consists of filtration through Anthracite Coal Beds followed by disinfection with high intensity UV (ultraviolet) light. At this stage the "reclaimed" water meets State Title 22 full body contact requirements.

Untreated wastewater (Influent) enters the plant's Headworks from the South Bay region. In the Headworks, the wastewater passes through large, rake-like Bar Screens to remove solid debris and floating material (called "Rags") such as cloth, wood, and plastic material. These "rags" are dewatered and trucked to a landfill.

Following the headworks, the screened wastewater then passes through aerated Grit Chambers where heavier solids such as sand, gravel, coffee grounds and eggshells settle out and are removed. The grit is then dewatered and taken to landfills.

Wastewater then flows into the Primary Sedimentation Basins where the sedimentation process starts. Solids sink to the bottom of the tanks and "scum" (grease and cooking oils) float to the surface. "Raw Sludge" which has settled to the bottom of the basins is returned to the sewer system and sent to the Point Loma Wastewater Treatment Plant. Similarly, the scum is skimmed from the surface and returned to the sewer system.

The wastewater then enters Anoxic Zone Chambers that are oxygen depleted. The wastewater mixes with bacteria ("Bugs") that eat soluble organic material. The wastewater then flows into Aeration Basins where diffused air is pumped into the water. Here, the bugs begin to ingest and digest the organic solids while increasing in number and density.

Wastewater flows from the Aeration Basin into the Secondary Clarifiers where the bacteria and digested solids settle to the bottom as "Secondary Sludge." Some of this Sludge and any remaining scum are removed and returned to the sewer system for treatment at the Point Loma Wastewater Treatment Plant. The remaining sludge is returned to the Anoxic Basins and again mixed with the wastewater.

The water, now treated to a Secondary Treatment level, can either be discharged into the ocean though the [South Bay Ocean Outfall](#) or moved on to Tertiary Treatment for reclaimed water applications and beneficial reuse⁹.

In Tertiary Treatment, the treated wastewater (effluent) flows into Anthracite Coal Beds where it is filtered of remaining solids as it passes through the coal medium. The filtered water then passes through chambers where it is disinfected through exposure to high-intensity UV (ultraviolet) light.

⁹ The [Recycled Water Users Summary Report](#) as described in Permit No. 2000-203 is submitted separately.

SBWRP Annual Monitoring Report

2008 Flow Report

WASTEWATER MONTHLY AVERAGE FLOWS

(Million Gallons / Day)

Mon	SB_INF_02	SB_OUTFALL_00	South Metro Interceptor Return	Recycled Production	Distributed Recycled	Dilution Water Added Recycled	Recycled Plant Internal use
01	8.81	6.22	1.58	4.99	.94	.00	.60
02	8.83	6.50	1.48	3.97	.77	.00	.55
03	8.78	4.38	1.54	4.99	2.80	.00	.63
04	8.79	2.87	1.65	6.34	4.20	.00	.66
05	8.77	1.86	1.81	7.75	5.08	.00	.81
06	8.74	1.10	1.73	7.65	5.87	.00	.73
07	8.61	.86	1.62	7.46	6.06	.00	.64
08	8.58	.56	1.76	7.58	6.24	.00	.80
09	8.39	1.19	1.62	7.42	5.55	.00	.75
10	8.51	1.78	1.66	7.51	5.10	.00	.69
11	8.50	5.03	1.61	6.12	1.80	.00	.66
12	8.73	6.07	1.62	6.10	.99	.00	.66
avg	8.67	3.20	1.64	6.49	3.78	.00	.68
sum	104.04	38.42	19.68	77.88	45.40	.00	8.18

WASTEWATER MONTHLY TOTAL FLOWS

(Million Gallons / Month)

Mon	SB_INF_02	SB_OUTFALL_00	South Metro Interceptor Return	Recycled Production	Distributed Recycled	Dilution Water Added Recycled	Recycled Plant Internal use
01	273.18	192.88	48.92	154.60	29.00	.00	18.75
02	255.99	188.43	42.98	115.10	22.33	.00	15.89
03	272.10	135.76	47.82	154.76	86.72	.00	19.49
04	263.80	85.99	49.64	190.08	126.05	.00	19.80
05	271.96	57.77	56.23	240.21	157.51	.00	25.15
06	262.19	33.11	51.98	229.37	176.21	.02	21.91
07	266.92	26.55	50.15	231.18	187.77	.01	19.96
08	266.08	17.24	54.62	235.04	193.52	.01	24.74
09	251.65	35.58	48.68	222.55	166.50	.02	22.44
10	263.81	55.10	51.51	232.88	158.06	.00	21.28
11	255.13	150.92	48.28	183.62	53.94	.00	19.71
12	270.68	188.04	50.26	189.02	30.83	.02	20.45
avg	264.46	97.28	50.09	198.20	115.70	.01	20.80
sum	3173.49	1167.37	601.07	2378.41	1388.44	.08	249.57

A. Flows

Effluent to Ocean FLOW (mgd) 2008

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	2.33	6.18	7.46	1.83	0.12	0.09	0.11	0.08	0.09	1.05	0.06	7.20	
2	6.66	7.27	6.85	5.13	0.11	3.33	0.11	1.09	2.18	0.07	0.74	3.38	
3	7.27	7.11	7.41	5.30	1.76	1.80	0.10	0.06	0.94	0.09	6.31	3.93	
4	7.23	7.27	5.89	1.81	1.96	0.54	0.10	0.09	0.44	0.08	6.86	7.14	
5	4.19	7.20	6.22	1.74	3.88	2.56	0.09	0.09	0.09	4.64	2.70	7.06	
6	4.49	7.61	5.38	6.96	0.33	2.45	0.10	0.09	0.09	3.88	3.74	6.16	
7	7.29	6.61	3.76	5.13	2.41	0.10	0.95	0.10	0.10	2.26	6.00	4.41	
8	7.22	7.49	6.75	2.62	3.13	1.75	0.48	0.09	0.11	3.03	6.72	6.99	
9	7.03	5.86	6.75	1.80	3.20	4.35	3.23	0.10	0.08	1.53	6.69	3.75	
10	7.46	7.20	4.02	1.79	0.29	0.11	1.28	0.06	1.02	2.21	6.17	7.05	
11	6.99	6.46	2.74	1.79	5.22	0.14	2.75	0.09	0.09	0.08	5.36	3.54	
12	5.20	3.87	2.84	6.62	2.72	0.11	0.08	0.08	0.10	0.07	5.76	5.05	
13	3.49	5.62	1.54	2.60	0.14	0.10	0.10	0.06	0.08	2.16	5.62	6.61	
14	7.21	7.24	1.45	2.42	0.22	3.33	0.29	0.52	0.90	2.52	5.67	6.81	
15	7.13	7.43	1.46	1.71	0.77	1.18	2.53	0.06	5.13	0.07	5.16	7.16	
16	7.19	7.16	2.40	2.58	2.19	1.03	0.11	0.07	0.09	1.86	5.21	3.60	
17	7.29	5.79	6.61	3.07	1.23	0.15	1.41	0.07	0.08	2.47	5.73	7.26	
18	7.22	7.32	6.32	5.31	6.82	1.24	0.10	0.86	0.10	3.64	6.41	6.95	
19	7.15	5.23	3.97	1.86	1.27	1.00	0.42	4.19	2.58	2.16	5.47	6.95	
20	6.92	3.94	3.91	0.61	0.06	0.12	0.69	0.92	1.27	0.06	6.62	7.00	
21	3.90	6.08	3.89	2.67	0.18	0.13	2.20	0.87	1.60	5.11	5.81	7.18	
22	3.33	7.29	2.40	3.05	2.71	0.36	3.07	0.08	6.82	1.79	5.40	4.01	
23	6.94	7.06	4.19	3.87	2.55	3.83	0.96	0.08	4.64	0.07	5.25	5.57	
24	7.25	7.25	3.98	4.50	0.59	0.35	1.12	0.07	2.52	0.07	3.20	7.12	
25	7.10	7.35	2.36	1.21	6.61	1.13	1.71	4.40	1.99	2.20	0.13	7.10	
26	7.33	7.14	2.18	2.57	0.11	0.96	0.09	1.06	0.94	2.17	0.87	7.19	
27	7.21	7.21	1.81	2.13	3.26	0.57	0.09	0.09	0.19	1.46	6.56	6.96	
28	7.01	3.82	4.81	0.86	2.17	0.10	0.08	0.11	0.21	4.02	7.05	3.55	
29	6.50	4.17	7.16	0.26	1.54	0.12	0.95	1.59	1.03	1.73	6.73	7.07	
30	5.59		7.13	2.19	0.09	0.08	0.09	0.05	0.08	2.47	6.92	7.12	
31	4.02		2.12		0.13		1.16	0.07		0.08		7.17	Annual Summary
Average	6.23	6.46	4.38	2.87	1.86	1.10	0.86	0.56	1.19	1.78	5.03	6.07	3.19
Minimum	2.33	3.82	1.45	0.26	0.06	0.08	0.08	0.05	0.08	0.06	0.06	3.38	0.05
Maximum	7.46	7.61	7.46	6.96	6.82	4.35	3.23	4.40	6.82	5.11	7.05	7.26	7.61
Total	193.14	187.23	135.76	85.99	57.77	33.11	26.55	17.24	35.58	55.10	150.92	188.04	1,166

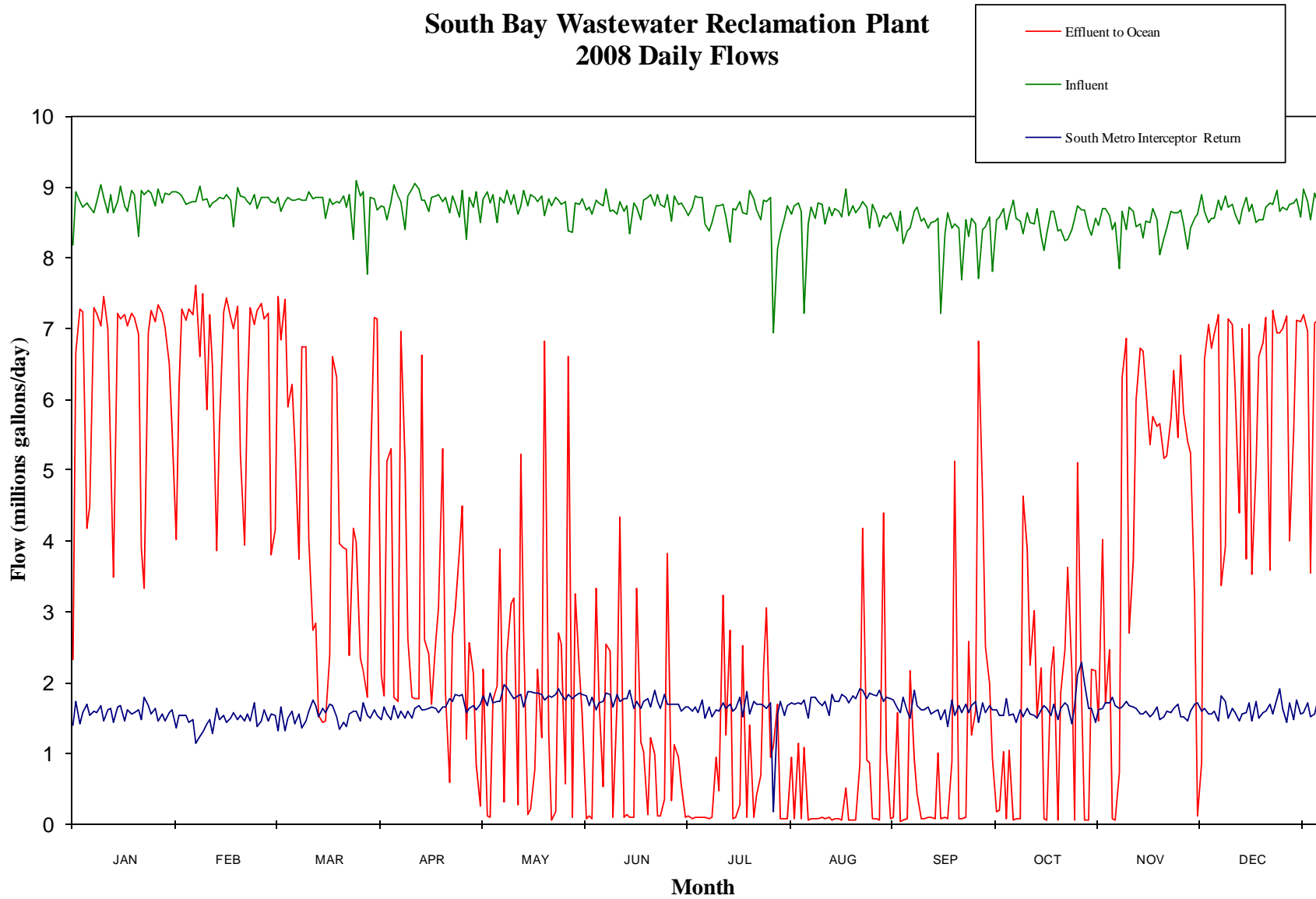
INFLUENT FLOW (mgd) 2008

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	8.19	8.92	8.86	8.72	8.95	8.62	8.88	8.67	8.39	8.60	8.51	8.82	
2	8.95	8.89	8.66	8.55	8.78	8.82	8.86	7.21	8.43	8.82	7.86	8.69	
3	8.81	8.76	8.81	8.81	8.91	8.78	8.87	8.48	8.67	8.56	8.66	8.89	
4	8.73	8.78	8.86	9.04	8.51	8.75	8.49	8.73	8.73	8.53	8.40	8.73	
5	8.79	8.80	8.82	8.89	8.87	8.99	8.39	8.57	8.52	8.35	8.72	8.76	
6	8.72	8.80	8.83	8.81	8.78	8.67	8.51	8.79	8.57	8.64	8.67	8.63	
7	8.65	9.02	8.85	8.41	8.96	8.68	8.75	8.76	8.42	8.50	8.44	8.49	
8	8.81	8.82	8.82	8.89	8.77	8.63	8.74	8.48	8.50	8.48	8.48	8.68	
9	9.05	8.85	8.82	8.98	8.90	8.80	8.76	8.72	8.52	8.70	8.28	8.86	
10	8.87	8.72	8.95	9.06	8.63	8.67	8.59	8.61	8.57	8.30	8.53	8.67	
11	8.65	8.79	8.85	8.99	8.74	8.75	8.23	8.71	7.22	8.10	8.51	8.77	
12	8.91	8.83	8.87	8.83	8.97	8.34	8.70	8.66	8.35	8.34	8.70	8.51	
13	8.64	8.87	8.86	8.82	8.74	8.79	8.68	8.59	8.64	8.66	8.55	8.54	
14	8.80	8.85	8.86	8.66	8.90	8.72	8.81	8.99	8.43	8.67	8.05	8.55	
15	9.02	8.90	8.56	8.86	8.86	8.55	8.65	8.60	8.48	8.39	8.28	8.73	
16	8.74	8.83	8.85	8.88	8.81	8.83	8.62	8.74	8.42	8.40	8.43	8.79	
17	8.66	8.45	8.77	8.91	8.88	8.87	8.96	8.64	7.70	8.25	8.67	8.77	
18	8.97	9.01	8.80	8.80	8.61	8.90	8.85	8.73	8.54	8.26	8.64	8.96	
19	8.90	8.88	8.78	8.86	8.84	8.75	8.68	8.80	8.31	8.40	8.65	8.66	
20	8.30	8.86	8.88	8.64	8.75	8.90	8.55	8.72	8.56	8.57	8.68	8.72	
21	8.96	8.81	8.72	8.89	8.87	8.77	8.83	8.42	8.48	8.75	8.48	8.69	
22	8.91	8.77	8.90	8.79	8.82	8.72	8.80	8.77	7.72	8.68	8.12	8.77	
23	8.96	8.91	8.26	8.58	8.76	8.91	8.86	8.62	8.40	8.68	8.42	8.78	
24	8.93	8.70	9.10	8.97	8.80	8.52	6.94	8.44	8.45	8.43	8.57	8.84	
25	8.75	8.86	8.89	8.26	8.38	8.89	8.12	8.60	8.58	8.33	8.62	8.59	
26	8.99	8.86	8.94	8.87	8.37	8.77	8.34	8.57	7.81	8.56	8.90	8.99	
27	8.78	8.87	7.78	8.73	8.79	8.78	8.57	8.65	8.55	8.46	8.66	8.80	
28	8.93	8.80	8.87	8.94	8.76	8.69	8.74	8.55	8.58	8.70	8.51	8.55	
29	8.91	8.78	8.84	8.51	8.85	8.60	8.62	8.39	8.70	8.70	8.57	8.92	
30	8.95		8.69	8.85	8.68	8.73	8.74	8.66	8.41	8.60	8.57	8.81	
31	8.95		8.75		8.72		8.79	8.21		8.40		8.72	Annual Summary
Average	8.81	8.83	8.78	8.79	8.77	8.74	8.61	8.58	8.39	8.51	8.50	8.73	8.67
Minimum	8.19	8.45	7.78	8.26	8.37	8.34	6.94	7.21	7.22	8.10	7.86	8.49	6.94
Maximum	9.05	9.02	9.10	9.06	8.97	8.99	8.96	8.99	8.73	8.82	8.90	8.99	9.10
Total	273.18	255.99	272.10	263.80	271.96	262.19	266.92	266.08	251.65	263.81	255.13	270.68	3,173

Blended Sludge Discharge to South Metro Interceptor (mgd) 2008

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1.41	1.55	1.32	1.66	1.69	1.80	1.67	1.71	1.60	1.54	1.68	1.46	
2	1.75	1.54	1.66	1.57	1.86	1.62	1.59	1.76	1.51	1.57	1.65	1.82	
3	1.42	1.55	1.33	1.48	1.73	1.72	1.76	1.51	1.89	1.45	1.67	1.74	
4	1.58	1.45	1.51	1.69	1.74	1.74	1.50	1.80	1.68	1.63	1.74	1.51	
5	1.71	1.48	1.60	1.51	1.75	1.85	1.66	1.79	1.62	1.53	1.68	1.65	
6	1.55	1.16	1.42	1.61	1.97	1.84	1.52	1.75	1.62	1.65	1.67	1.59	
7	1.60	1.25	1.57	1.50	1.93	1.67	1.63	1.68	1.66	1.57	1.64	1.46	
8	1.58	1.30	1.37	1.61	1.84	1.84	1.61	1.74	1.56	1.55	1.57	1.56	
9	1.68	1.42	1.46	1.50	1.78	1.75	1.73	1.54	1.61	1.50	1.56	1.58	
10	1.46	1.48	1.61	1.64	1.82	1.78	1.64	1.83	1.62	1.62	1.60	1.72	
11	1.63	1.29	1.76	1.68	1.84	1.78	1.70	1.74	1.49	1.69	1.52	1.46	
12	1.64	1.64	1.68	1.63	1.67	1.89	1.61	1.75	1.63	1.64	1.57	1.75	
13	1.45	1.48	1.52	1.63	1.87	1.65	1.64	1.84	1.38	1.55	1.67	1.50	
14	1.66	1.54	1.64	1.64	1.88	1.75	1.79	1.80	1.76	1.70	1.48	1.58	
15	1.69	1.45	1.59	1.67	1.85	1.65	1.52	1.72	1.54	1.49	1.53	1.61	
16	1.46	1.51	1.71	1.64	1.86	1.75	1.88	1.81	1.68	1.64	1.60	1.71	
17	1.63	1.58	1.68	1.58	1.84	1.77	1.57	1.77	1.59	1.73	1.58	1.56	
18	1.56	1.49	1.53	1.66	1.76	1.66	1.75	1.92	1.71	1.68	1.64	1.78	
19	1.58	1.54	1.35	1.67	1.82	1.90	1.71	1.89	1.58	1.42	1.70	1.91	
20	1.62	1.46	1.45	1.77	1.79	1.75	1.71	1.77	1.68	1.69	1.53	1.65	
21	1.48	1.57	1.38	1.75	1.84	1.64	1.68	1.86	1.74	2.11	1.53	1.44	
22	1.79	1.47	1.57	1.84	1.91	1.83	1.65	1.83	1.44	2.29	1.47	1.73	
23	1.68	1.73	1.60	1.81	1.83	1.70	1.73	1.82	1.72	1.99	1.60	1.48	
24	1.57	1.38	1.60	1.83	1.76	1.70	0.19	1.89	1.58	1.65	1.70	1.76	
25	1.65	1.47	1.47	1.58	1.83	1.70	1.57	1.74	1.68	1.65	1.73	1.57	
26	1.47	1.62	1.72	1.65	1.77	1.71	1.75	1.79	1.63	1.45	1.60	1.58	
27	1.57	1.47	1.55	1.69	1.82	1.60	1.55	1.77	1.62	1.63	1.64	1.72	
28	1.47	1.56	1.51	1.62	1.85	1.67	1.68	1.76	1.54	1.65	1.56	1.52	
29	1.58	1.55	1.62	1.71	1.83	1.67	1.73	1.65	1.54	1.73	1.56	1.57	
30	1.63		1.55	1.82	1.82	1.60	1.71	1.59	1.78	1.72	1.61	1.74	
31	1.37		1.49		1.68		1.72	1.80		1.80		1.55	
Average	1.59	1.48	1.54	1.65	1.81	1.73	1.62	1.76	1.62	1.66	1.61	1.62	1.64
Minimum	1.37	1.16	1.32	1.48	1.67	1.60	0.19	1.51	1.38	1.42	1.47	1.44	0.19
Maximum	1.79	1.73	1.76	1.84	1.97	1.90	1.88	1.92	1.89	2.29	1.74	1.91	2.29
Total	48.92	42.98	47.82	49.64	56.23	51.98	50.15	54.62	48.68	51.51	48.28	50.26	601

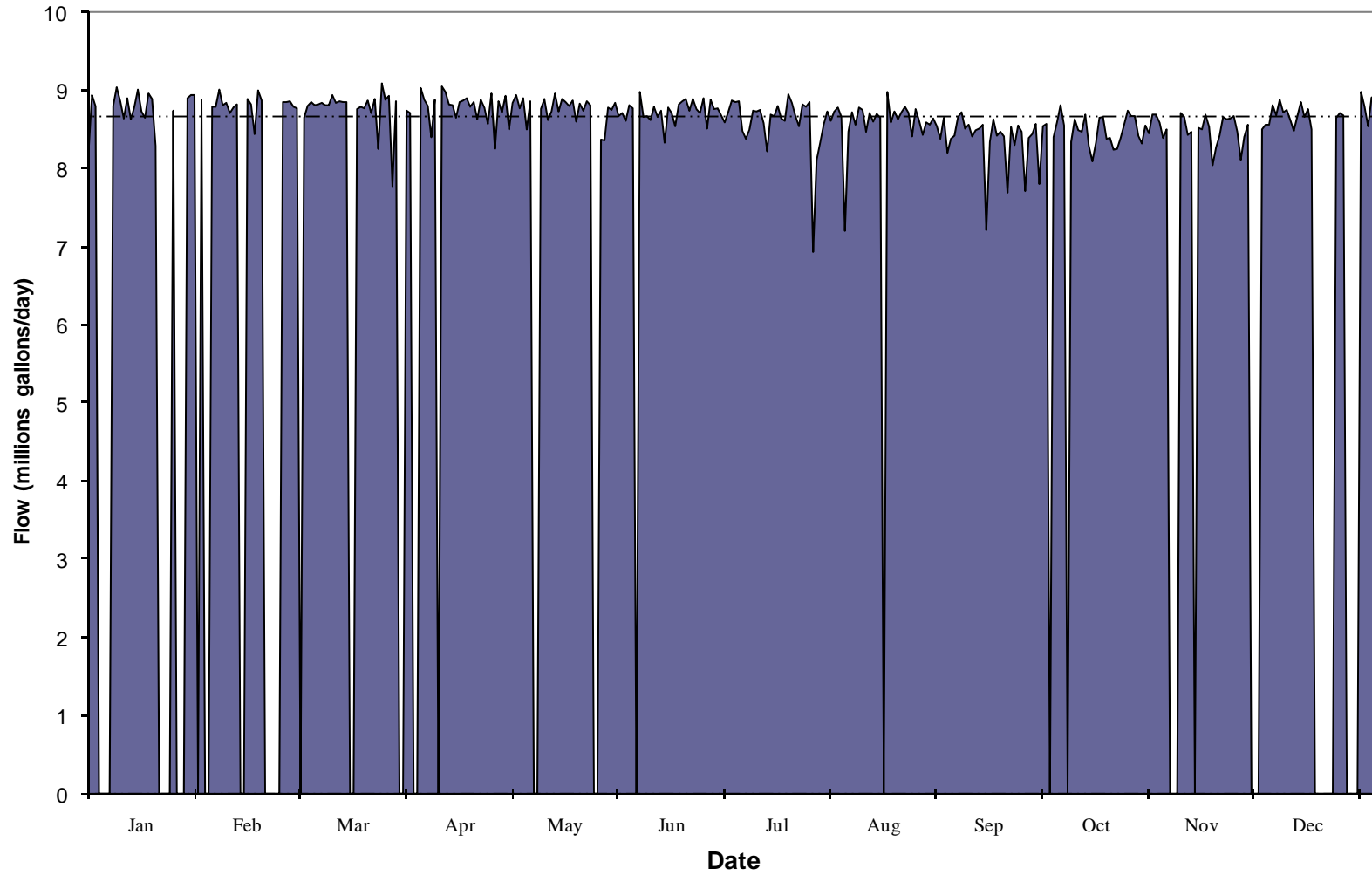
South Bay Wastewater Reclamation Plant 2008 Daily Flows



Dry Weather Flows 2008

Day	Influent												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	8.19			8.72	8.95	8.62	8.88	8.67	8.39	8.60	8.51	8.82	
2	8.95	8.89	8.66		8.78	8.82	8.86	7.21	8.43	8.82		8.69	
3	8.81		8.81		8.91	8.78	8.87	8.48	8.67	8.56		8.89	
4			8.86	9.04	8.51		8.49	8.73	8.73			8.73	
5		8.80	8.82	8.89	8.87	8.99	8.39	8.57	8.52	8.35	8.72	8.76	
6		8.80	8.83	8.81		8.67	8.51	8.79	8.57	8.64	8.67	8.63	
7		9.02	8.85	8.41		8.68	8.75	8.76	8.42	8.50	8.44	8.49	
8	8.81	8.82	8.82	8.89	8.77	8.63	8.74	8.48	8.50	8.48	8.48	8.68	
9	9.05	8.85	8.82		8.90	8.80	8.76	8.72	8.52	8.70		8.86	
10	8.87	8.72	8.95	9.06	8.63	8.67	8.59	8.61	8.57	8.30	8.53	8.67	
11	8.65	8.79	8.85	8.99	8.74	8.75	8.23	8.71	7.22	8.10	8.51	8.77	
12	8.91	8.83	8.87	8.83	8.97	8.34	8.70	8.66	8.35	8.34	8.70	8.51	
13	8.64		8.86	8.82	8.74	8.79	8.68		8.64	8.66	8.55		
14	8.80		8.86	8.66	8.9	8.72	8.81	8.99	8.43	8.67	8.05		
15	9.02	8.90		8.86	8.86	8.55	8.65	8.60	8.48	8.39	8.28		
16	8.74	8.83		8.88	8.81	8.83	8.62	8.74	8.42	8.40	8.43		
17	8.66	8.45	8.77	8.91	8.88	8.87	8.96	8.64	7.70	8.25	8.67		
18	8.97	9.01	8.80	8.8	8.61	8.9	8.85	8.73	8.54	8.26	8.64		
19	8.90	8.88	8.78	8.86	8.84	8.75	8.68	8.8	8.31	8.40	8.65	8.66	
20	8.30		8.88	8.64	8.75	8.9	8.55	8.72	8.56	8.57	8.68	8.72	
21			8.72	8.89	8.87	8.77	8.83	8.42	8.48	8.75	8.48	8.69	
22			8.90	8.79	8.82	8.72	8.80	8.77	7.72	8.68	8.12		
23			8.26	8.58		8.91	8.86	8.62	8.40	8.68	8.42		
24			9.10	8.97		8.52	6.94	8.44	8.45	8.43	8.57		
25	8.75	8.86	8.89	8.26	8.38	8.89	8.12	8.60	8.58	8.33			
26		8.86	8.94	8.87	8.37	8.77	8.34	8.57	7.81	8.56		8.99	
27		8.87	7.78	8.73	8.79	8.78	8.57	8.65	8.55	8.46		8.8	
28		8.80	8.87	8.94	8.76	8.69	8.74	8.55	8.58	8.70	8.51	8.55	
29	8.91	8.78		8.51	8.85	8.6	8.62	8.39	8.58	8.70	8.57	8.92	
30	8.95			8.85	8.68	8.73	8.74	8.66	8.41	8.60	8.57	8.81	
31	8.95		8.75		8.72		8.79	8.21		8.40		8.72	
Average	8.79	8.83	8.78	8.79	8.77	8.74	8.61	8.58	8.38	8.51	8.51	8.73	8.66
Minimum	8.19	8.45	7.78	8.26	8.37	8.34	6.94	7.21	7.22	8.10	8.05	8.49	6.94
Maximum	9.05	9.02	9.10	9.06	8.97	8.99	8.96	8.99	8.73	8.82	8.72	8.99	9.10
Total	175.8	167.8	228.3	237.5	236.7	253.4	266.9	257.5	243.0	255.3	195.8	183.4	2701

South Bay Wastewater Reclamation Plant 2008 Daily Influent Dry Flows

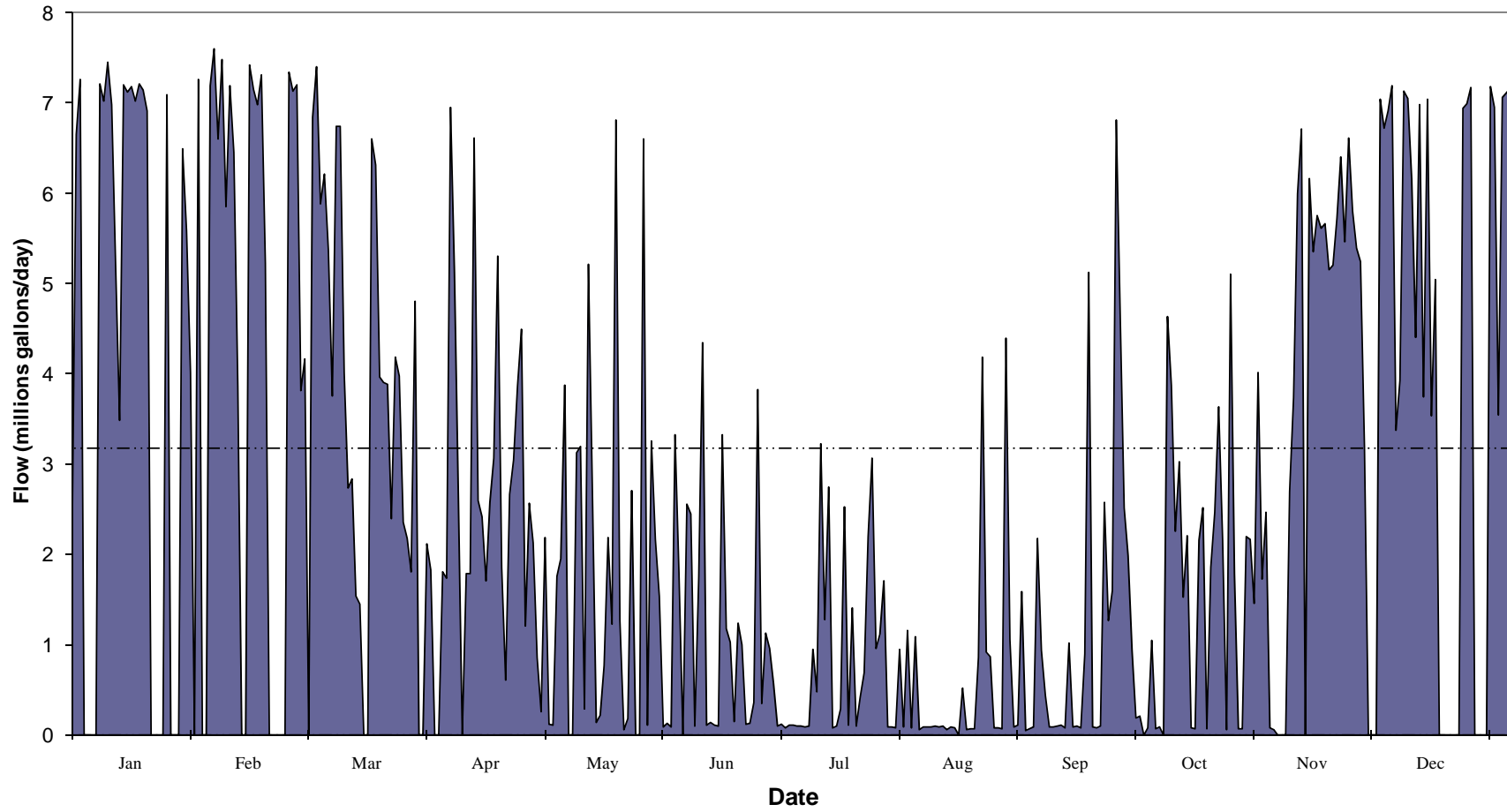


Dry Weather Flows 2008

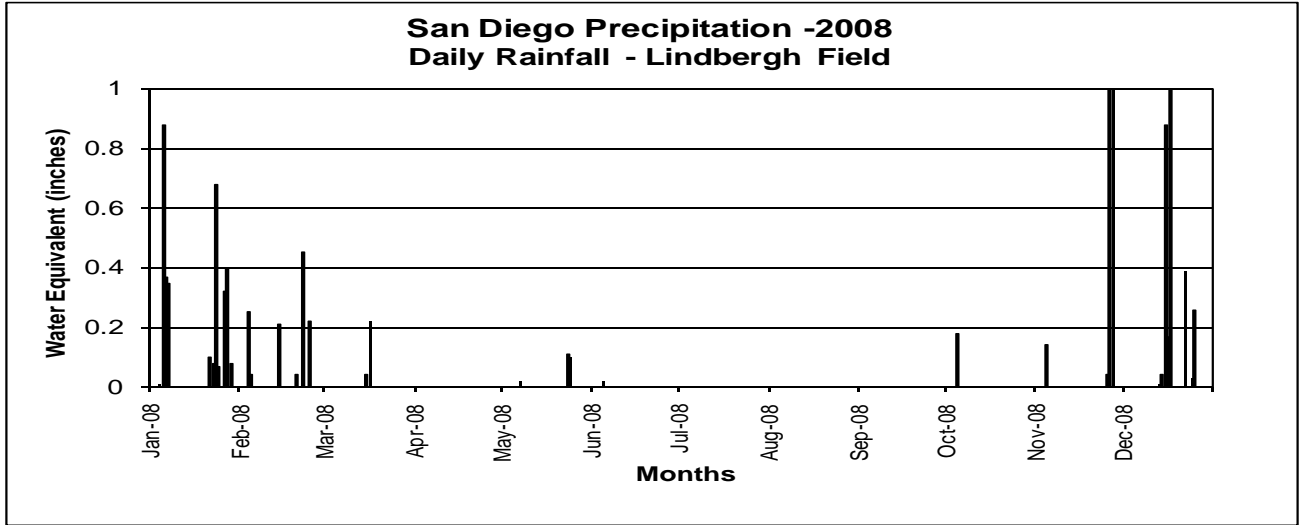
Effluent to Ocean

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	2.33			1.83	0.12	0.09	0.11	0.08	0.09	1.05	0.06	7.2	
2	6.66	7.27	6.85		0.11	3.33	0.11	1.09	2.18	0.07		3.38	
3	7.27		7.41		1.76	1.80	0.10	0.06	0.94	0.09		3.93	
4			5.89	1.81	1.96		0.10	0.09	0.44			7.14	
5		7.2	6.22	1.74	3.88	2.56	0.09	0.09	0.09	4.64	2.7	7.06	
6		7.61	5.38	6.96		2.45	0.10	0.09	0.09	3.88	3.74	6.16	
7		6.61	3.76	5.13		0.10	0.95	0.10	0.10	2.26	6.00	4.41	
8	7.22	7.49	6.75	2.62	3.13	1.75	0.48	0.09	0.11	3.03	6.72	6.99	
9	7.03	5.86	6.75		3.2	4.35	3.23	0.10	0.08	1.53		3.75	
10	7.46	7.2	4.02	1.79	0.29	0.11	1.28	0.06	1.02	2.21	6.17	7.05	
11	6.99	6.46	2.74	1.79	5.22	0.14	2.75	0.09	0.09	0.08	5.36	3.54	
12	5.20	3.87	2.84	6.62	2.72	0.11	0.08	0.08	0.10	0.07	5.76	5.05	
13	3.49		1.54	2.60	0.14	0.10	0.10		0.08	2.16	5.62		
14	7.21		1.45	2.42	0.22	3.33	0.29	0.52	0.9	2.52	5.67		
15	7.13	7.43		1.71	0.77	1.18	2.53	0.06	5.13	0.07	5.16		
16	7.19	7.16		2.58	2.19	1.03	0.11	0.07	0.09	1.86	5.21		
17	7.03	6.99	6.61	3.07	1.23	0.15	1.41	0.07	0.08	2.47	5.73		
18	7.22	7.32	6.32	5.31	6.82	1.24	0.10	0.86	0.10	3.64	6.41		
19	7.15	5.23	3.97	1.86	1.27	1.00	0.42	4.19	2.58	2.16	5.47	6.95	
20	6.92		3.91	0.61	0.06	0.12	0.69	0.92	1.27	0.06	6.62	7.00	
21			3.89	2.67	0.18	0.13	2.20	0.87	1.60	5.11	5.81	7.18	
22			2.4	3.05	2.71	0.36	3.07	0.08	6.82	1.79	5.40		
23			4.19	3.87		3.83	0.96	0.08	4.64	0.07	5.25		
24			3.98	4.50		0.35	1.12	0.07	2.52	0.07	3.20		
25	7.10	7.35	2.36	1.21	6.61	1.13	1.71	4.4	1.99	2.20			
26		7.14	2.18	2.57	0.11	0.96	0.09	1.06	0.94	2.17		7.19	
27		7.21	1.81	2.13	3.26	0.57	0.09	0.09	0.19	1.46		6.96	
28		3.82	4.81	0.86	2.17	0.1	0.08	0.11	0.21	4.02	7.05	3.55	
29	6.50	4.17		0.26	1.54	0.12	0.95	1.59		1.73	6.73	7.07	
30	5.59			2.19	0.09	0.08	0.09	0.05	0.08	2.47	6.92	7.12	
31	4.02		2.12		0.13		1.16	0.07		0.08		7.17	
Average	6.34	6.49	4.24	2.73	1.92	1.12	0.86	0.57	1.19	1.83	5.34	5.99	2.89
Minimum	2.33	3.82	1.45	0.26	0.06	0.08	0.08	0.05	0.08	0.06	0.06	3.38	0.05
Maximum	7.46	7.61	7.41	6.96	6.82	4.35	3.23	4.40	6.82	5.11	7.05	7.20	7.61
Total	126.7	123.4	110.2	73.8	51.9	32.6	26.6	17.2	34.6	55.0	122.8	125.9	900

South Bay Wastewater Reclamation Plant 2008 Daily Effluent to Ocean Dry Flows



B. Rain Days



Total Annual precipitation = 11.11		Maximum = 1.6		Trace = 0			
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
Date	Rain	Date	Rain	Date	Rain	Date	Rain
4-Jan-08	0.01	2-Apr-08	T	13-Aug-08	T	4-Oct-08	0.18
5-Jan-08	0.88	3-Apr-08	T	29-Sep-08	T	2-Nov-08	T
6-Jan-08	0.37	9-Apr-08	T			3-Nov-08	T
7-Jan-08	0.35	6-May-08	T			4-Nov-08	0.14
21-Jan-08	0.1	7-May-08	0.02			9-Nov-08	T
22-Jan-08	0.08	23-May-08	0.11			25-Nov-08	0.04
23-Jan-08	0.68	24-May-08	0.1			26-Nov-08	1.05
24-Jan-08	0.07	4-Jun-08	0.02			27-Nov-08	1.26
26-Jan-08	0.32					13-Dec-08	0.01
27-Jan-08	0.4					14-Dec-08	0.04
28-Jan-08	0.08					15-Dec-08	0.88
1-Feb-08	T					16-Dec-08	0.17
3-Feb-08	0.25					17-Dec-08	1.6
4-Feb-08	0.04					18-Dec-08	T
13-Feb-08	T					22-Dec-08	0.39
14-Feb-08	0.21					23-Dec-08	T
20-Feb-08	0.04					24-Dec-08	0.03
21-Feb-08	T					25-Dec-08	0.26
22-Feb-08	0.45						
23-Feb-08	T						
24-Feb-08	0.22						
1-Mar-08	T						
15-Mar-08	0.04						
16-Mar-08	0.22						
29-Mar-08	T						
30-Mar-08	T						
TOTALS	4.81		0.25		0		6.05

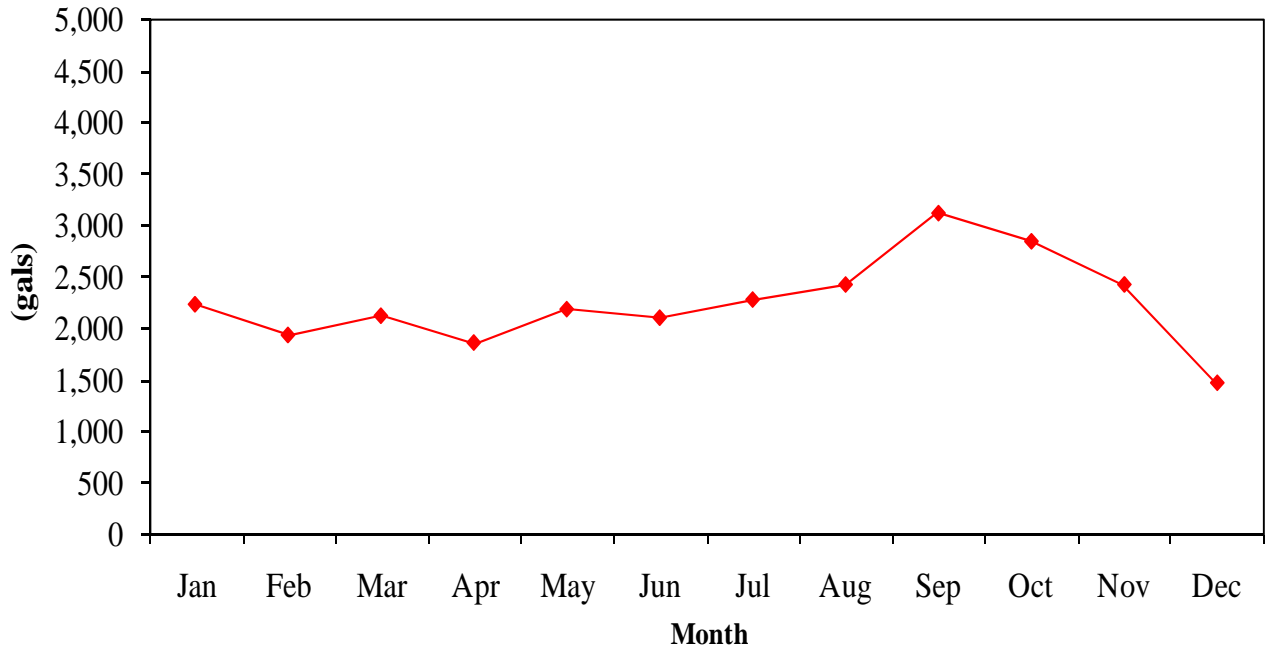
C. Chemical Report

South Bay Water Reclamation Plant - Annual Chemical Usage Report

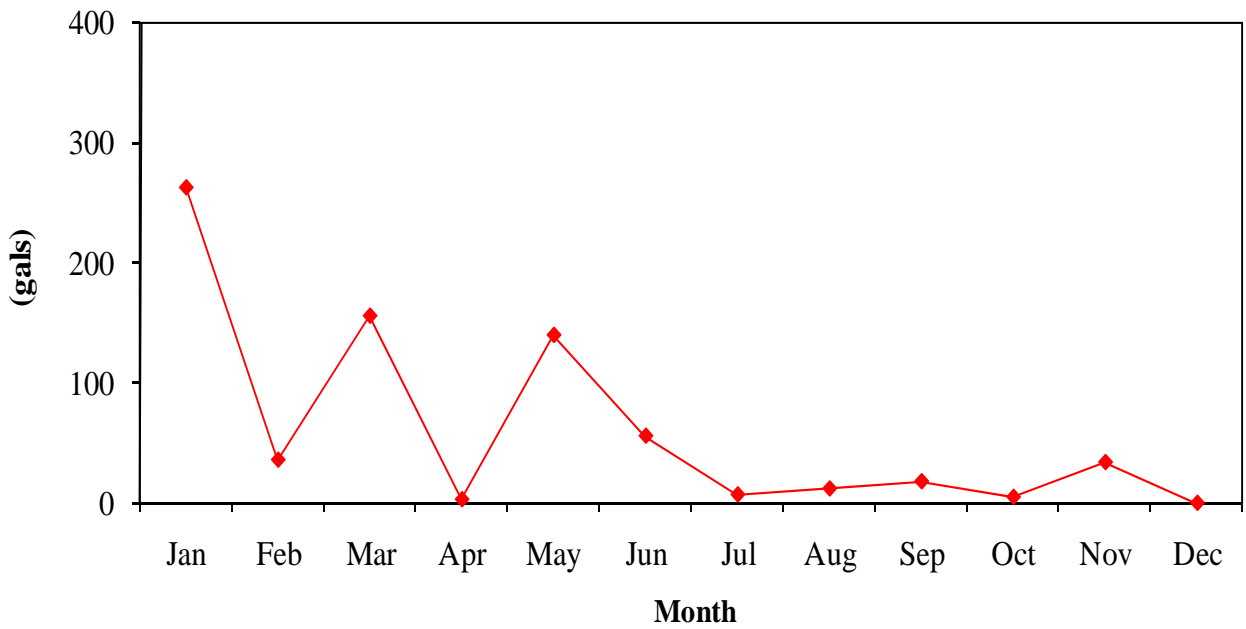
2008

DATE	Polymer Catalytic Gallons	Hypochlorite Gallons	Alum Chloride Gallons	Sodium Hydroxide Gallons	Ferric Chloride Gallons
Jan-08	263	30,388	353	2,228	0
Feb-08	36	22,628	51	1,928	0
Mar-08	156	22,612	413	2,116	0
Apr-08	3	19,812	53	1,854	0
May-08	140	27,090	64	2,180	0
Jun-08	56	29,035	63	2,097	0
Jul-08	7	26,022	75	2,274	0
Aug-08	12	28,447	19	2,421	0
Sep-08	18	29,562	39	3,118	0
Oct-08	5	27,137	71	2,843	0
Nov-08	34	19,280	49	2,422	0
Dec-08	0	13,863	76	1,461	0
AVG	61	24,656	110.5	2,245	0
SUM	730	295,876	1326	29,942	0

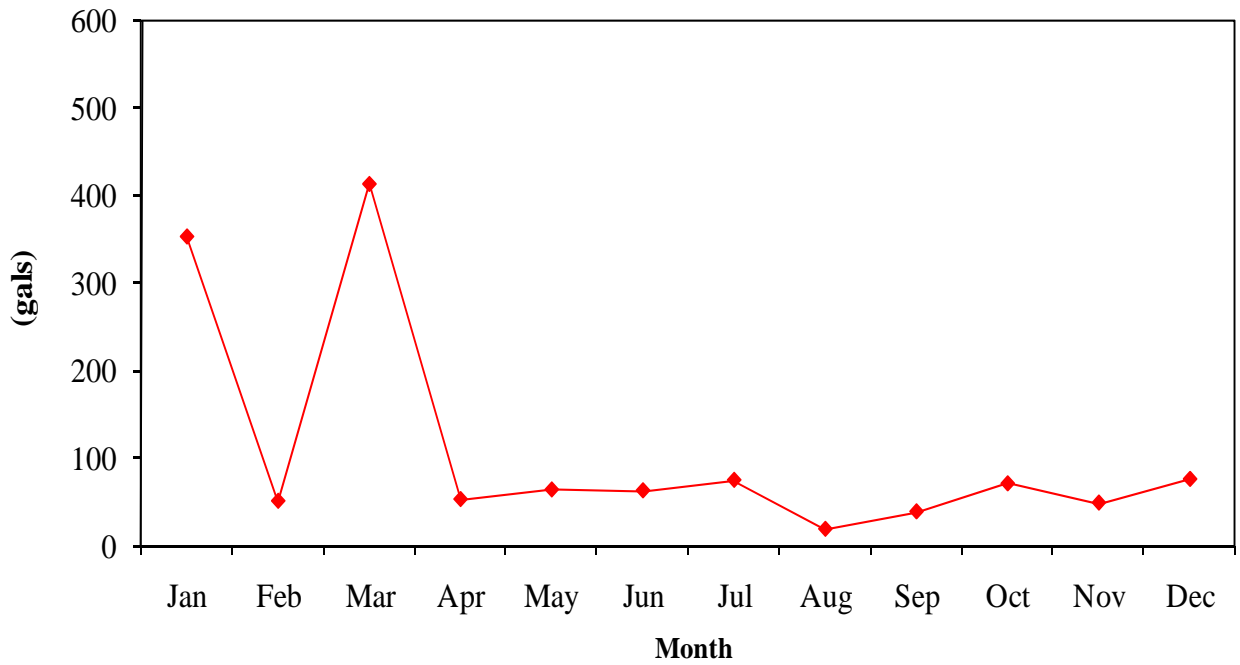
**South Bay Water Reclamation Plant
Caustic
2008 Monthly Chemical Usage**



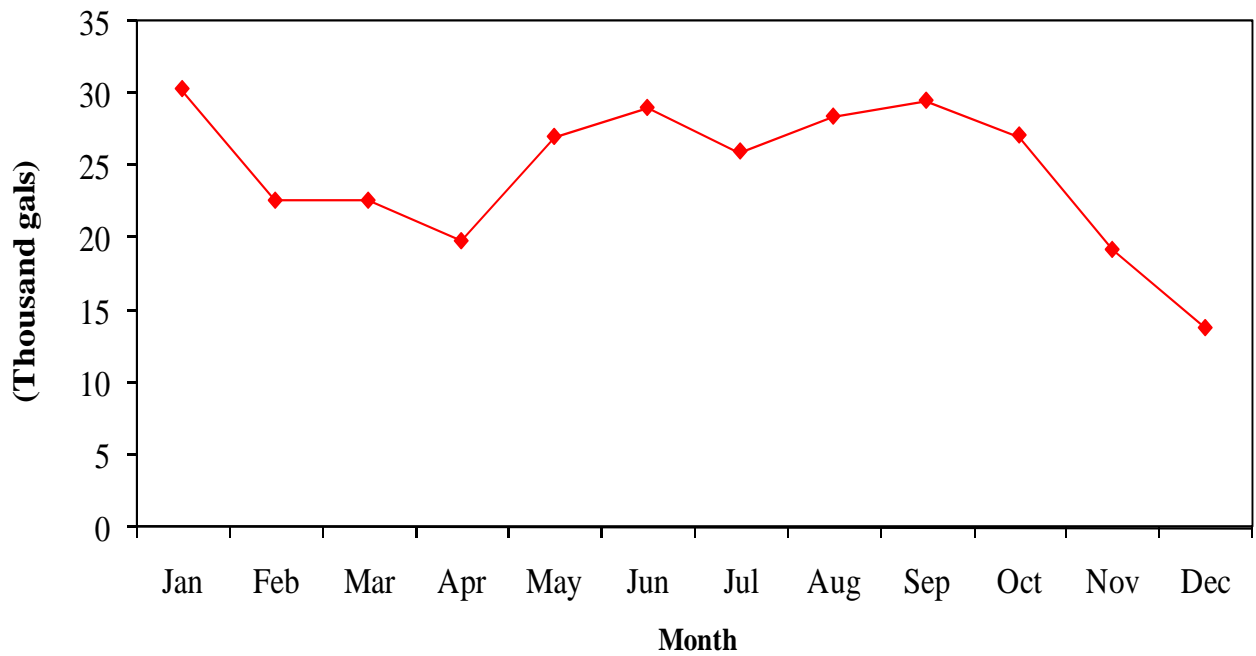
**South Bay Water Reclamation Plant
Polymer E. Catalytic
2008 Monthly Chemical Usage**



**South Bay Water Reclamation Plant
Alum
2008 Monthly Chemical Usage**



**South Bay Water Reclamation Plant
Sodium Hypochlorite
2008 Monthly Chemical Usage**



D. Facilities Out of Service Report

2008 SBWRP FACILITIES OUT OF SERVICE REPORT

FACILITIES OOS BY DATE

Bar Screens

	FROM	TO	REASON
Bar Screen 2	2/22/08	2/22/08	While screen is off line need to drain inlet channel, inspect and remove grit and rags wrapped around drain gate.
Bar Screen 2	10/21/08	10/21/08	Bar screen not completely raking channel flow and not parking regularly. Barscreens are consequently still slightly plugged with debris eventually causing high channel alarms and failing the strategy. Please inspect and adjust. Barscreen not engaging fully and penetrating the bar screen deeply due to rocks and peach stone seeds.

Primary Sedimentation

	FROM	TO	REASON
Pri Sed Tank 1	12/12/08	12/16/08	Please remove diffusers from influent of tank.
Pri Sed Tank 1	12/29/08	12/29/08	Please inspect and repair. No power to Primary Sed #1 PSL collector(10-ME-711) . No lights or power indicated
Pri Sed Tank 1	12/30/08	12/30/08	Please inspect/repair. Primary Sludge collector #1 (10-ME-710) failed, No Power
Pri Sed Tank 2	8/25/08	8/25/08	Please inspect and repair, Primary Drain valve to Primary Sed tank #2 will not close.
Pri Sed Tank 2	8/25/08	8/25/08	Please inspect and repair, No power to Primary Sed. Tank collector control panel #2
Pri Sed Tank 2	12/15/08	12/15/08	Please inspect and repair. Primary Sed tank #2 Sludge Collector
Pri Sed Tank 5	1/31/08	1/31/08	Please troubleshoot and resolve PSL drawoff valve S10UA7071 for TANK 5 GEN FAIL alarm.
Pri Sed Tank 5	2/2/08	2/2/08	Suction valve to tank in gen fail, will not clear. Callout to Standby Electrician.
Pri Sed Tank 5	2/4/08	2/6/08	SB10MOV7071 Troubleshoot, valve going into Gen Fail
Pri Sed Tank 5	3/5/08	12/24/08	Primary Sludge tank #5 draw-off valve, 10-MOV-7071 will not run in Auto, placed in manual to avoid Gen Fail in Auto.
Pri Sed Tank 5	9/23/08	9/23/08	Remove tank trough plate covers. Please undo fasteners and remove plate covers for scaffolding access.
Pri Sed Tank 5	10/6/08	10/16/08	SBWRP ** #5 Primary Sedimentation Tank ** Clean debris from the influent sump. Remove influent diffusers.
Pri Sed Tank 5	11/6/08	11/6/08	SBWRP ** #5 Primary Sedimentation Tank ** adjust scum trough

Pri Sed Tank 5	11/26/08	11/26/08	Please inspect, repair/replace shear pin on Primary Sed tank #5
Pri Sed Tank 5	12/1/08	12/1/08	Please inspect and repair. OL fault on Primary Sed Tank #5 control panel, would not reset.
Pri Sed Tank 5	12/23/08	4/8/09	Water solenoid to scum sprayer not opening, please repair/replace.

Aeration Basins

	FROM	TO	REASON
Aer Basin 6	2/5/08	4/4/08	Please recalibrate position indicator for air valve, shows closed on DCS but feeding.
Aer Basin 7	6/19/08	6/19/08	Air valve feeding zones 2 and 4 not controlling, please repair.

Secondary Clarifiers

	FROM	TO	REASON
Sec. Clar. 2	2/26/08	2/26/08	Inspect & repair, Secondary #2 Sludge Collector failing on low speed
Sec. Clar. 4	3/26/08	3/27/08	Inspect and repair, Sec Sludge Collector #4
Sec. Clar. 4	4/1/08	6/5/08	SBWRP **#4 Secondary Sludge Collector** Inspect and repair
Sec. Clar. 6	4/7/08	4/7/08	Sec. Sed tank #6 Sheer Pin failure
Sec. Clar. 7	7/21/08	9/25/08	Noted during PM that flight drive does not slip. Rework/replace as necessary.
Sec. Clar. 9	7/21/08	9/9/08	Noted during PM need to replace shear pin bushing, Sludge collector flight chain has too much slack causing jerk motion. Please adjust flight chain mechanism.

Tertiary Filters

	FROM	TO	REASON
Ter. Filter 1	4/21/08	5/22/08	Filter Air Scour inlet valve 25-MOV-216 is currently in LOCAL position and indicating travel on DCS. Will indicate GEN FAIL when filter status was changed to IN SERVICE on DCS. Need I&C to troubleshoot and repair MOV as necessary.
Ter. Filter 1	8/12/08	8/12/08	The SHC injection line for filter 3 was cut off earlier. Please reconnect the line so that operations can chlorinate the filter.
Ter. Filter 3	2/12/08	2/13/08	troubleshoot and correct FILTER 3 FLE V GEN FAIL alarm.
Ter. Filter 3	8/28/08	4/8/09	FLE valve 25FCV233 not fully closing in DCS, closed 2 full turns manually to secure flow. Please repair.
Ter. Filter 3	2/24/09	4/21/08	Please inspect and repair Filter Backwash Inlet Value # 238, leaking when indicated closed on the DCS, Gen fails when hand closed tighter.
Ter. Filter 5	7/28/08	8/13/08	Please inspect and repair. Filter #5 Lower Gullet Vent Valve (25-MOV-257) continually goes into Gen Fail (S25UAO257) alarm intermittently then resets itself, eliminating the Gen Fail alarm.
Ter. Filter 5	9/15/08	9/17/08	There is a SHC leak on the injection line to filter 5 located in the RAS gallery. It appears to be a slow leak.

Ter. Filter 6	3/5/08	3/13/08	Filter #6 FLE valve 25-FCV-263 faulting on Gen Fail. Sometimes not operating in DCS/AUTO
Ter. Filter 6	3/13/08	3/13/08	SBWRP ** Teriary Filter #6** Waste Backwash Valve (25-MOV-265) failing on Gen Fail. Fails on Step 25 of Filter #6 sequence.
Ter. Filter 6	9/30/08	10/1/08	Filter #6 Lower Gullet Vault Valve keeps going in and out of GEN FAIL ALARM (25-MOV-267)

FACILITIES OOS BY PROCESS

Bar Screens

	DATES OOS
Bar Screen 2	2/22/08-2/22/08;10/21/08-10/21/08

Primary Sedimentation

	DATES OOS
Pri Sed Tank 1	12/12/08-12/16/08;12/29/08-12/29/08;12/30/08-12/30/08
Pri Sed Tank 2	8/25/08-8/25/08;8/25/08-8/25/08;12/15/08-12/15/08
Pri Sed Tank 5	1/31/08-1/31/08;2/2/08-2/2/08;2/4/08-2/6/08;3/5/08-12/24/08;9/23/08-9/23/08;10/6/08-10/16/08;11/6/08-11/6/08;11/26/08-11/26/08;12/1/08-12/1/08;12/23/08-4/8/09

Aeration Basins

	DATES OOS
Aer Basin 6	2/5/08-4/4/08
Aer Basin 7	6/19/08-6/19/08

Secondary Clarifiers

	DATES OOS
Sec. Clar. 2	2/26/08-2/26/08
Sec. Clar. 4	3/26/08-3/27/08;4/1/08-6/5/08
Sec. Clar. 6	4/7/08-4/7/08
Sec. Clar. 7	7/21/08-9/25/08
Sec. Clar. 9	7/21/08-9/9/08

Tertiary Filters

	DATES OOS
Ter. Filter 1	4/21/08-5/22/08;8/12/08-8/12/08
Ter. Filter 3	2/12/08-2/13/08;8/28/08-4/8/09;2/24/09-4/21/08
Ter. Filter 5	7/28/08-8/13/08;9/15/08-9/17/08
Ter. Filter 6	3/5/08-3/13/08;3/13/08-3/13/08;9/30/08-10/1/08