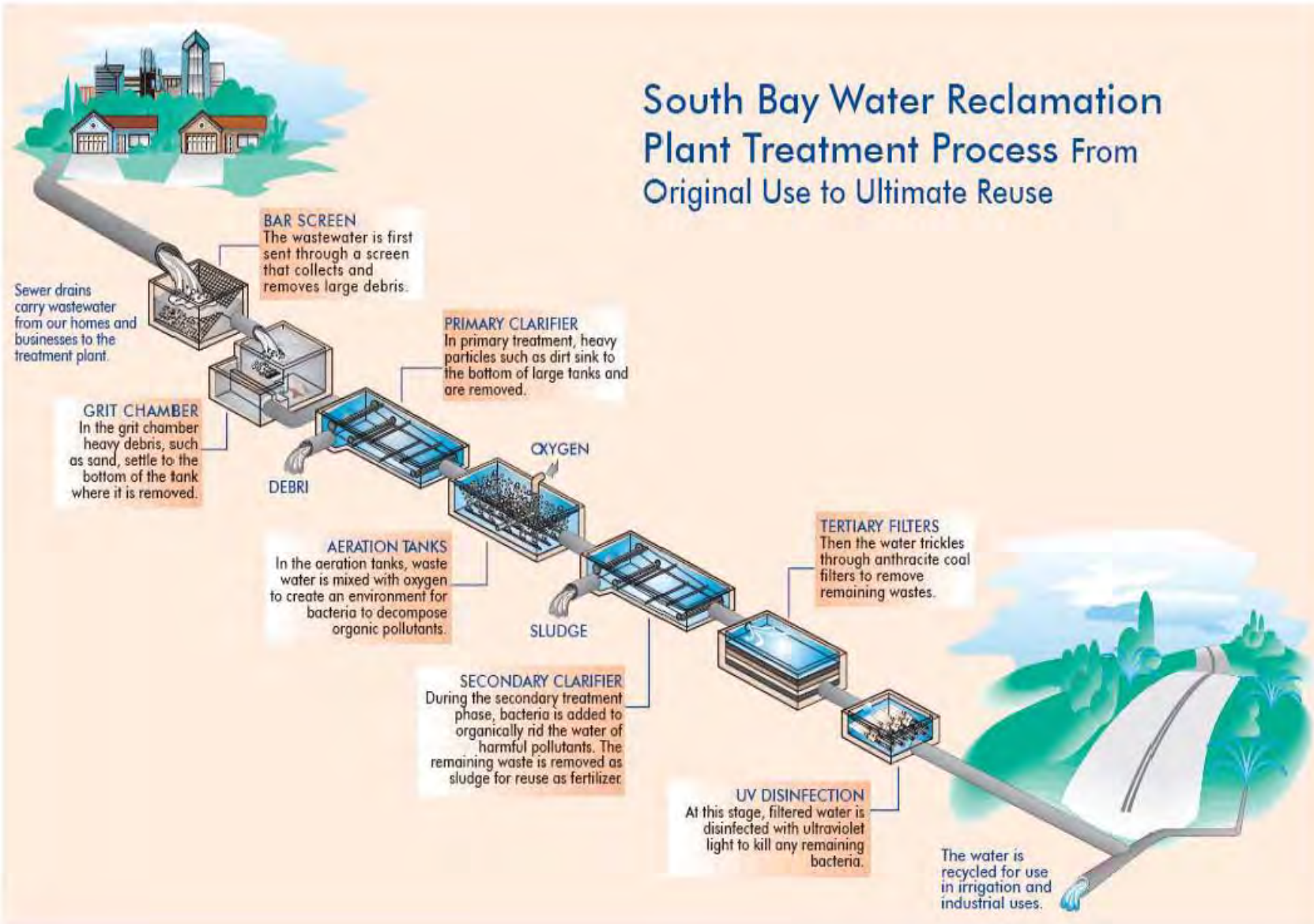


III. Plant Operations Summary

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

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 through the South Bay Ocean Outfall or moved on to Tertiary Treatment for reclaimed water applications and beneficial reuse⁸.

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.

⁸ The Recycled Water Users Summary Report as described in Permit No. 2000-203 is submitted separately.

SBWRP Annual Monitoring Report

2007 Flow Report

WASTEWATER MONTHLY AVERAGE FLOWS

(Million Gallons / Day)

Month	SB_INF_02	SB_OUTFALL_00	South Metro Interceptor Return	Recycled Production	Distributed Recycled	Dilution Water Added Recycled	Recycled Plant Internal Use
01	7.90	6.18	1.35	5.03	.22	.00	.62
02	8.52	6.47	1.06	4.70	.45	.00	.72
03	8.65	6.51	1.39	6.52	.42	.00	.89
04	8.73	6.17	1.37	5.68	.82	.00	.88
05	8.73	5.00	1.40	5.77	2.04	.00	.86
06	8.59	1.10	1.57	7.36	5.88	.00	.69
07	8.80	1.03	1.56	7.78	6.15	.00	.64
08	8.79	1.05	1.54	7.82	6.16	.00	.63
09	8.67	1.87	1.46	7.54	5.32	.00	.62
10	8.77	2.92	1.45	7.67	4.37	.00	.71
11	8.73	4.15	1.53	6.51	2.99	.00	.68
12	8.79	5.94	1.60	6.01	1.22	.00	.64
avg	8.64	4.03	1.44	6.53	3.00	.00	.72
sum	103.66	48.37	17.29	78.39	36.04	.00	8.59

WASTEWATER MONTHLY TOTAL FLOWS

(Million Gallons / Month)

Month	SB_INF_02	SB_OUTFALL_00	South Metro Interceptor Return	Recycled Production	Distributed Recycled	Dilution Water Added Recycled	Recycled Plant Internal Use
01	244.78	191.68	41.77	155.82	6.80	.00	19.35
02	238.55	181.20	29.73	131.57	12.48	.00	20.23
03	268.09	201.79	43.21	202.10	13.17	.00	27.71
04	261.86	185.10	41.05	170.34	24.65	.10	26.39
05	270.60	154.86	43.28	178.94	63.11	.00	26.69
06	257.79	32.85	47.15	220.74	176.33	.00	20.70
07	272.76	31.94	48.50	241.27	190.75	.00	19.90
08	272.46	32.49	47.75	242.34	190.90	.00	19.47
09	260.09	56.03	43.93	226.20	159.73	.00	18.56
10	271.74	90.39	45.01	237.89	135.48	.00	22.00
11	261.90	124.35	45.99	195.39	89.77	.00	20.40
12	272.60	184.02	49.53	186.43	37.85	.00	19.88
avg	262.77	122.23	43.91	199.09	91.75	.01	21.77
sum	3153.22	1466.70	526.90	2389.03	1101.02	.10	261.28

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A. Flows

Effluent to Ocean FLOW (mgd) 2007

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	6.55	4.02	6.49	6.47	6.64	1.94	0.92	2.85	0.08	4.45	1.60	7.06	
2	5.64	7.69	5.96	6.62	6.35	0.45	0.20	0.62	1.59	3.52	7.05	6.85	
3	5.93	8.26	6.58	5.69	6.28	0.50	0.06	0.45	1.43	0.31	1.33	3.46	
4	4.66	7.01	6.25	7.20	5.67	2.33	0.43	1.67	1.00	7.25	5.65	1.97	
5	6.12	7.23	6.57	6.00	5.94	4.28	0.10	0.83	4.19	0.61	7.46	2.76	
6	7.29	7.64	6.79	5.69	6.21	0.57	0.05	1.06	4.22	0.13	1.15	7.58	
7	6.32	7.69	6.32	6.31	6.56	2.69	0.06	1.96	1.01	2.83	1.32	7.22	
8	6.80	7.80	6.67	6.41	6.54	1.13	6.33	1.97	1.04	7.40	7.23	6.72	
9	6.61	6.70	5.75	6.65	7.32	1.44	6.38	0.49	0.06	1.08	2.72	6.87	
10	7.16	5.82	5.75	6.01	5.61	0.06	0.60	0.06	1.82	0.87	1.93	7.15	
11	7.35	6.18	5.75	7.29	6.58	1.24	1.09	1.25	0.14	1.19	5.56	3.54	
12	6.62	6.80	6.54	5.20	6.35	0.99	0.89	0.05	0.08	2.76	7.22	3.94	
13	6.91	6.40	6.35	3.95	6.78	2.80	0.07	1.24	0.29	7.38	2.04	6.73	
14	5.81	7.16	6.76	7.36	5.64	0.62	0.05	3.64	0.61	6.36	1.50	7.24	
15	5.61	6.08	5.54	7.56	6.36	0.18	0.07	1.18	6.03	0.91	2.40	7.15	
16	6.66	6.10	5.90	4.64	6.53	0.35	0.07	0.94	0.91	0.13	7.18	7.10	
17	7.29	5.79	5.67	6.51	6.69	2.25	0.57	1.13	0.19	5.17	7.11	7.25	
18	6.74	5.85	6.56	6.52	4.43	0.04	1.29	0.08	0.88	3.71	2.19	2.23	
19	6.86	6.36	7.56	6.03	6.51	0.84	0.16	0.05	1.08	2.53	1.94	4.82	
20	6.97	5.11	7.49	5.66	5.91	0.88	0.04	0.06	0.06	7.46	2.41	7.28	
21	6.18	5.91	6.33	6.09	1.96	0.07	0.09	0.09	2.44	4.02	7.36	7.07	
22	6.06	6.71	7.83	6.02	2.82	0.06	0.05	1.31	7.09	3.30	4.24	7.36	
23	6.30	6.34	7.77	5.81	7.26	0.06	6.19	0.17	2.84	3.77	1.77	6.95	
24	7.49	6.35	7.60	6.46	4.51	0.60	2.03	0.06	3.70	0.14	6.56	7.41	
25	6.89	6.10	7.64	6.60	0.46	2.74	2.53	0.01	5.93	0.33	7.10	6.02	
26	5.90	5.41	7.47	5.05	0.48	1.73	0.04	6.22	0.38	0.76	4.62	2.48	
27	6.73	6.72	6.35	6.25	1.45	0.04	0.08	2.79	1.27	4.66	1.86	5.39	
28	6.86	5.97	4.77	6.60	1.35	1.86	0.07	0.03	1.93	0.11	2.73	7.27	
29	6.77		6.53	6.34	1.39	0.05	0.52	0.07	1.92	2.14	3.80	7.22	
30	2.60		6.21	6.11	1.20	0.06	0.58	0.06	1.82	4.17	7.32	7.13	
31	*		6.04		7.08		0.33	0.10		0.94		4.80	Annual
Average	6.39	6.47	6.51	6.17	5.00	1.10	1.03	1.05	1.87	2.92	4.15	5.94	4.03
Minimum	2.60	4.02	4.77	3.95	0.46	0.04	0.04	0.01	0.06	0.11	1.15	1.97	0.01
Maximum	7.49	8.26	7.83	7.56	7.32	4.28	6.38	6.22	7.09	7.46	7.46	7.58	8.26
Total	191.68	181.20	201.79	185.10	154.86	32.85	31.94	32.49	56.03	90.39	124.35	184.02	1,467

* = Ethernet upgrade to DCS therefore no flow data was produced. Representative samples collected and delivered to Lab.

INFLUENT FLOW (mgd) 2007

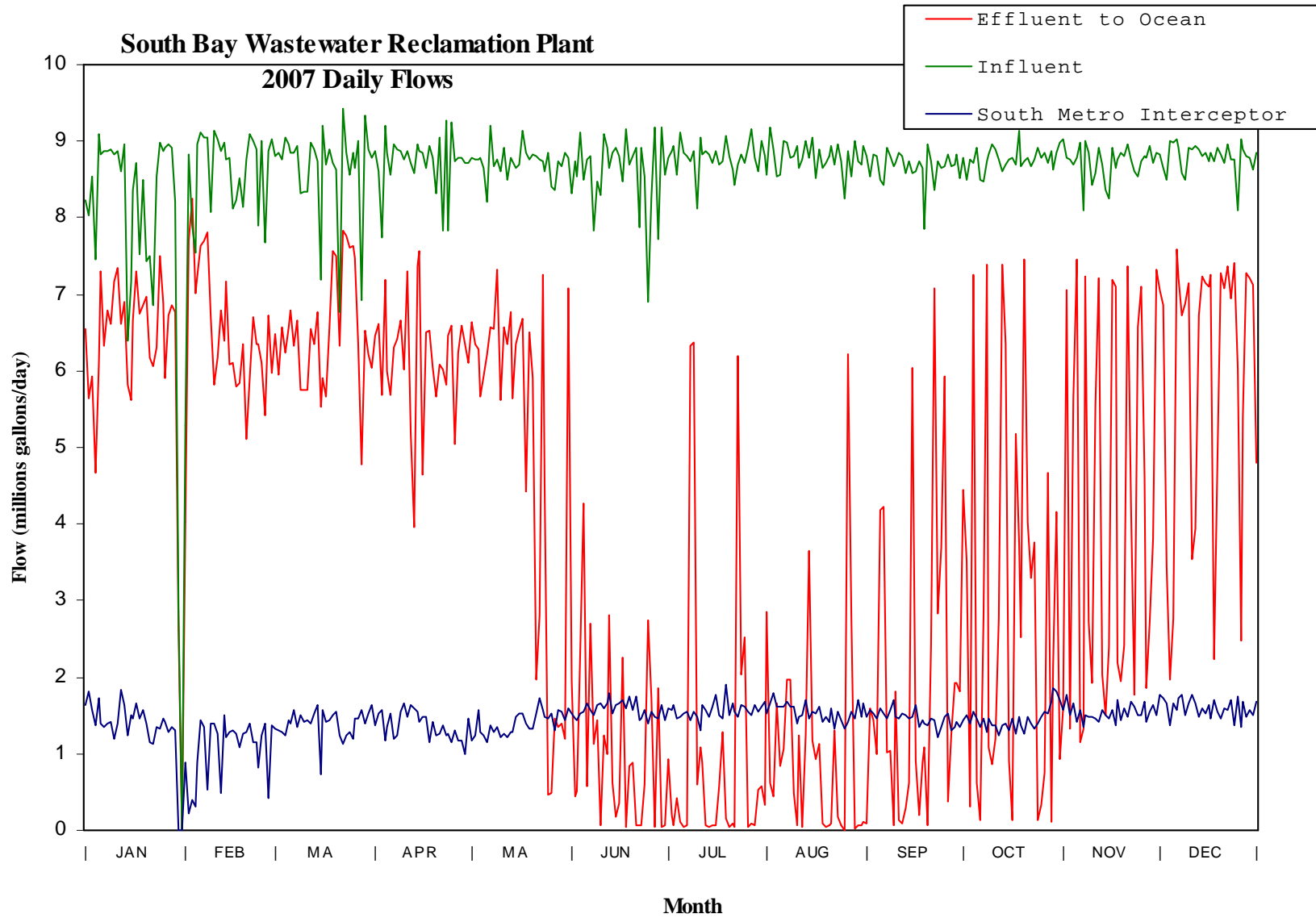
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	8.24	5.28	8.80	8.88	8.79	8.31	8.79	8.56	8.80	8.78	9.02	8.82	
2	8.02	8.82	8.86	8.60	8.76	8.75	8.87	9.18	8.54	8.50	8.79	8.64	
3	8.53	7.89	8.76	7.74	8.76	8.53	8.93	8.89	8.82	8.77	8.76	8.50	
4	7.45	7.55	9.04	9.20	8.78	9.12	8.57	8.54	8.81	8.72	8.70	9.01	
5	9.10	8.96	8.97	8.84	8.66	8.50	9.11	8.56	8.50	8.91	8.79	8.98	
6	8.82	9.11	8.84	8.57	8.21	8.76	8.86	9.00	8.42	8.50	8.98	9.02	
7	8.87	9.04	8.85	8.97	9.20	8.81	8.81	8.99	8.91	8.47	8.10	8.92	
8	8.87	9.04	8.93	8.90	8.68	7.83	8.73	8.78	8.81	8.74	9.00	8.59	
9	8.90	8.07	8.32	8.87	8.76	8.48	8.87	8.81	8.68	8.82	8.85	8.49	
10	8.83	9.13	8.34	8.76	8.60	8.29	8.13	8.94	8.71	8.96	8.42	8.92	
11	8.88	9.02	8.34	8.87	8.91	9.09	9.05	8.65	8.86	8.89	8.58	8.89	
12	8.60	8.87	8.99	8.71	8.50	8.92	8.83	8.77	8.81	8.77	8.92	8.94	
13	8.95	8.98	8.90	8.58	8.78	8.66	8.87	9.01	8.59	8.61	8.69	8.89	
14	6.40	8.76	8.74	8.97	8.73	8.84	8.83	8.79	8.73	8.70	8.37	8.80	
15	7.17	8.78	7.19	8.88	8.66	8.91	8.72	9.05	8.59	8.77	8.26	8.84	
16	8.36	8.13	9.21	8.84	8.69	8.80	8.88	8.52	8.60	8.79	8.91	8.75	
17	8.71	8.22	8.69	8.66	9.13	8.48	8.69	8.89	8.75	8.70	8.64	8.84	
18	7.53	8.51	8.89	8.94	8.86	9.15	8.75	8.65	8.64	9.13	8.76	8.74	
19	8.50	8.15	8.72	8.78	8.77	8.69	9.08	8.72	7.86	8.67	8.86	8.92	
20	7.44	8.77	8.63	8.32	8.82	8.81	8.80	8.80	8.96	8.73	8.81	8.82	
21	7.51	9.10	6.78	9.04	8.80	8.91	8.63	8.93	8.74	8.79	8.97	8.72	
22	6.86	9.00	9.43	7.83	8.76	7.87	8.44	8.70	8.36	8.68	8.77	8.95	
23	8.55	8.89	8.84	9.28	8.73	8.91	8.70	8.96	8.73	8.76	8.60	8.77	
24	8.99	7.89	8.56	7.83	8.60	8.53	8.83	8.75	8.64	8.92	8.55	8.77	
25	8.87	9.01	8.85	9.25	8.85	6.91	8.72	8.25	8.68	8.78	8.73	8.10	
26	8.91	7.67	8.66	8.75	8.40	8.27	8.91	8.88	8.83	8.86	8.81	9.02	
27	8.95	8.88	9.01	8.79	8.36	9.18	9.16	8.53	8.68	8.71	8.78	8.89	
28	8.91	9.03	6.93	8.78	8.73	7.73	8.78	9.01	8.70	8.87	8.93	8.81	
29	8.20		9.34	8.72	8.68	9.18	8.61	8.73	8.83	8.62	8.71	8.78	
30	2.86		8.89	8.71	8.85	8.57	9.00	8.69	8.51	8.84	8.84	8.63	
31	*		8.79		8.79		8.81	8.93		8.98		8.84	Annual
Average	8.16	8.52	8.65	8.73	8.73	8.59	8.80	8.79	8.67	8.77	8.73	8.79	8.66
Minimum	2.86	5.28	6.78	7.74	8.21	6.91	8.13	8.25	7.86	8.47	8.10	8.10	2.86
Maximum	9.10	9.13	9.43	9.28	9.20	9.18	9.16	9.18	8.96	9.13	9.02	9.02	9.43
Total	244.78	238.55	268.09	261.86	270.60	257.79	272.76	272.46	260.09	271.74	261.90	272.60	3,153

* = Ethernet upgrade to DCS therefore no flow data was produced. Representative samples collected and delivered to Lab.

Blended Sludge Discharge to South Metro Interceptor (mgd) 2007

Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1.63	0.89	1.32	1.37	1.18	1.53	1.60	1.52	1.48	1.44	1.57	1.76	
2	1.82	0.23	1.30	1.52	1.24	1.45	1.57	1.66	1.56	1.51	1.78	1.72	
3	1.57	0.39	1.29	1.57	1.57	1.43	1.64	1.80	1.52	1.40	1.51	1.67	
4	1.38	0.31	1.23	1.18	1.29	1.53	1.47	1.61	1.47	1.54	1.67	1.38	
5	1.72	0.89	1.44	1.35	1.24	1.55	1.49	1.62	1.59	1.45	1.42	1.66	
6	1.40	1.43	1.40	1.53	1.14	1.66	1.52	1.62	1.53	1.35	1.57	1.58	
7	1.36	1.36	1.56	1.20	1.38	1.58	1.55	1.68	1.47	1.47	1.36	1.72	
8	1.40	0.53	1.35	1.25	1.29	1.50	1.43	1.62	1.58	1.28	1.51	1.78	
9	1.41	1.40	1.51	1.54	1.35	1.64	1.54	1.61	1.70	1.47	1.48	1.51	
10	1.20	1.39	1.42	1.66	1.22	1.66	1.48	1.40	1.49	1.38	1.49	1.65	
11	1.40	1.27	1.44	1.48	1.26	1.59	1.31	1.49	1.46	1.38	1.46	1.76	
12	1.84	0.48	1.40	1.64	1.22	1.66	1.64	1.50	1.52	1.23	1.42	1.67	
13	1.64	1.51	1.53	1.59	1.28	1.79	1.57	1.70	1.51	1.38	1.56	1.49	
14	1.25	1.21	1.64	1.54	1.29	1.52	1.49	1.46	1.47	1.39	1.50	1.60	
15	1.50	1.29	0.74	1.42	1.49	1.64	1.61	1.55	1.48	1.31	1.46	1.52	
16	1.45	1.30	1.57	1.49	1.53	1.65	1.77	1.52	1.63	1.47	1.56	1.63	
17	1.66	1.27	1.41	1.48	1.53	1.71	1.50	1.62	1.36	1.26	1.37	1.45	
18	1.45	1.09	1.44	1.16	1.39	1.60	1.46	1.41	1.44	1.48	1.71	1.70	
19	1.56	1.27	1.51	1.42	1.32	1.75	1.90	1.49	1.39	1.37	1.43	1.54	
20	1.40	1.29	1.54	1.24	1.32	1.57	1.51	1.41	1.37	1.26	1.60	1.46	
21	1.14	1.39	1.25	1.26	1.53	1.75	1.66	1.59	1.45	1.48	1.48	1.60	
22	1.12	1.16	1.13	1.38	1.72	1.43	1.55	1.33	1.44	1.39	1.69	1.57	
23	1.35	1.15	1.24	1.25	1.56	1.45	1.48	1.54	1.22	1.32	1.62	1.70	
24	1.32	0.82	1.29	1.27	1.48	1.56	1.63	1.43	1.36	1.40	1.50	1.38	
25	1.47	1.23	1.20	1.14	1.47	1.40	1.62	1.33	1.49	1.48	1.51	1.75	
26	1.41	1.40	1.47	1.30	1.53	1.54	1.54	1.41	1.53	1.54	1.68	1.34	
27	1.28	0.41	1.46	1.17	1.31	1.49	1.50	1.54	1.31	1.53	1.41	1.68	
28	1.34	1.37	1.56	1.18	1.56	1.45	1.64	1.45	1.36	1.68	1.54	1.48	
29	1.30		1.40	1.00	1.55	1.64	1.54	1.70	1.41	1.85	1.63	1.58	
30	0.00		1.53	1.47	1.44	1.43	1.61	1.48	1.34	1.82	1.50	1.51	
31	*		1.64		1.60	1.60	1.68	1.66		1.70		1.69	Annual
Average	1.39	1.06	1.39	1.37	1.40	1.57	1.56	1.54	1.46	1.45	1.53	1.60	1.45
Minimum	0.00	0.23	0.74	1.00	1.14	1.40	1.31	1.33	1.22	1.23	1.36	1.34	0.00
Maximum	1.84	1.51	1.64	1.66	1.72	1.79	1.90	1.80	1.70	1.85	1.78	1.78	1.90
Total	41.77	29.73	43.21	41.05	43.28	48.75	48.50	47.75	43.93	45.01	45.99	49.53	529

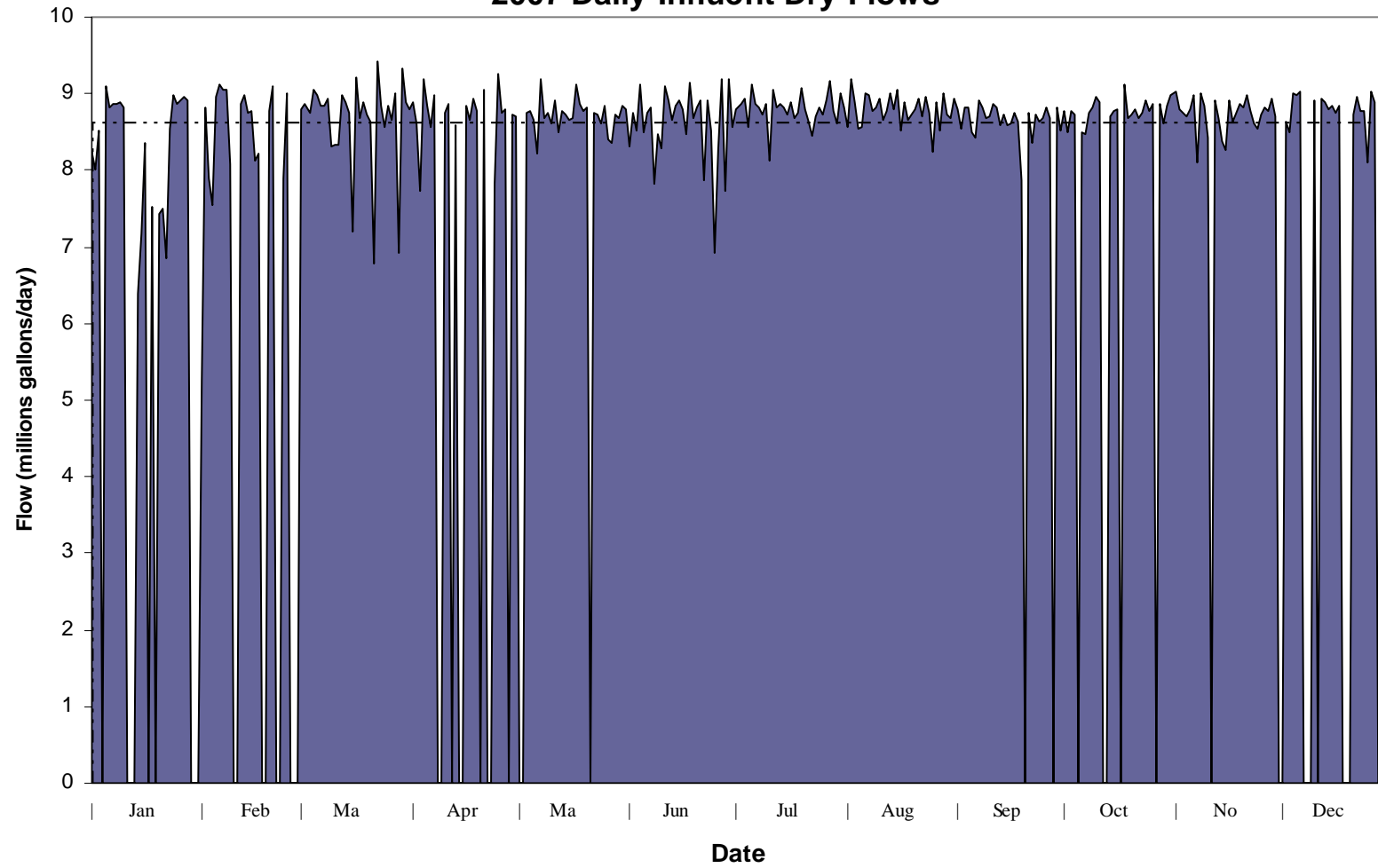
* = Ethernet upgrade to DCS therefore no flow data was produced. Representative samples collected and delivered to Lab.



Dry Weather Flows 2007

Day	Influent												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	8.24	5.28	8.8	8.88		8.31	8.79	8.56	8.8	8.78	9.02		
2	8.02	8.82	8.86	8.6		8.75	8.87	9.18	8.54	8.5	8.79	8.64	
3	8.53	7.89	8.76	7.74	8.76	8.53	8.93	8.89	8.82	8.77	8.76	8.5	
4		7.55	9.04	9.2	8.78	9.12	8.57	8.54	8.81	8.72	8.7	9.01	
5	9.1	8.96	8.97	8.84	8.66	8.5	9.11	8.56	8.5		8.79	8.98	
6	8.82	9.11	8.84	8.57	8.21	8.76	8.86	9	8.42	8.5	8.98	9.02	
7	8.87	9.04	8.85	8.97	9.2	8.81	8.81	8.99	8.91	8.47	8.1		
8	8.87	9.04	8.93		8.68	7.83	8.73	8.78	8.81	8.74	9		
9	8.9	8.07	8.32		8.76	8.48	8.87	8.81	8.68	8.82	8.85		
10	8.83		8.34	8.76	8.6	8.29	8.13	8.94	8.71	8.96	8.42	8.92	
11			8.34	8.87	8.91	9.09	9.05	8.65	8.86	8.89			
12		8.87	8.99		8.5	8.92	8.83	8.77	8.81		8.92	8.94	
13			8.9	8.58	8.78	8.66	8.87	9.01	8.59		8.69	8.89	
14	6.4	8.76	8.74		8.73	8.84	8.83	8.79	8.73	8.7	8.37	8.8	
15	7.17	8.78	7.19		8.66	8.91	8.72	9.05	8.59	8.77	8.26	8.84	
16	8.36	8.13	9.21	8.84	8.69	8.8	8.88	8.52	8.6	8.79	8.91	8.75	
17		8.22	8.69	8.66	9.13	8.48	8.69	8.89	8.75		8.64	8.84	
18	7.53		8.89	8.94	8.86	9.15	8.75	8.65	8.64	9.13	8.76		
19			8.72	8.78	8.77	8.69	9.08	8.72	7.86	8.67	8.86		
20	7.44	8.77	8.63		8.82	8.81	8.8	8.8		8.73	8.81		
21	7.51	9.1	6.78	9.04		8.91	8.63	8.93	8.74	8.79	8.97	8.72	
22	6.86		9.43		8.76	7.87	8.44	8.7	8.36	8.68	8.77	8.95	
23	8.55		8.84		8.73	8.91	8.7	8.96	8.73	8.76	8.6	8.77	
24	8.99	7.89	8.56	7.83	8.6	8.53	8.83	8.75	8.64	8.92	8.55	8.77	
25	8.87	9.01	8.85	9.25	8.85	6.91	8.72	8.25	8.68	8.78	8.73	8.1	
26	8.91		8.66	8.75	8.4	8.27	8.91	8.88	8.83	8.86	8.81	9.02	
27	8.95		9.01	8.79	8.36	9.18	9.16	8.53	8.68		8.78	8.89	
28	8.91		6.93		8.73	7.73	8.78	9.01		8.87	8.93		
29			9.34	8.72	8.68	9.18	8.61	8.73	8.83	8.62	8.71		
30			8.89	8.71	8.85	8.57	9	8.69	8.51	8.84		8.63	
31			8.79		8.79		8.81	8.93		8.98		8.84	
Average	8.30	8.41	8.65	8.73	8.72	8.59	8.80	8.79	8.66	8.77	8.73	8.80	8.67
Minimum	6.40	5.28	6.78	7.74	8.21	6.91	8.13	8.25	7.86	8.47	8.10	8.10	5.28
Maximum	9.10	9.11	9.43	9.25	9.20	9.18	9.16	9.18	8.91	9.13	9.02	9.02	9.43
Total	182.63	151.29	268.09	183.32	244.25	257.79	272.76	272.46	242.43	228.04	244.48	184.82	2732

South Bay Wastewater Reclamation Plant 2007 Daily Influent Dry Flows

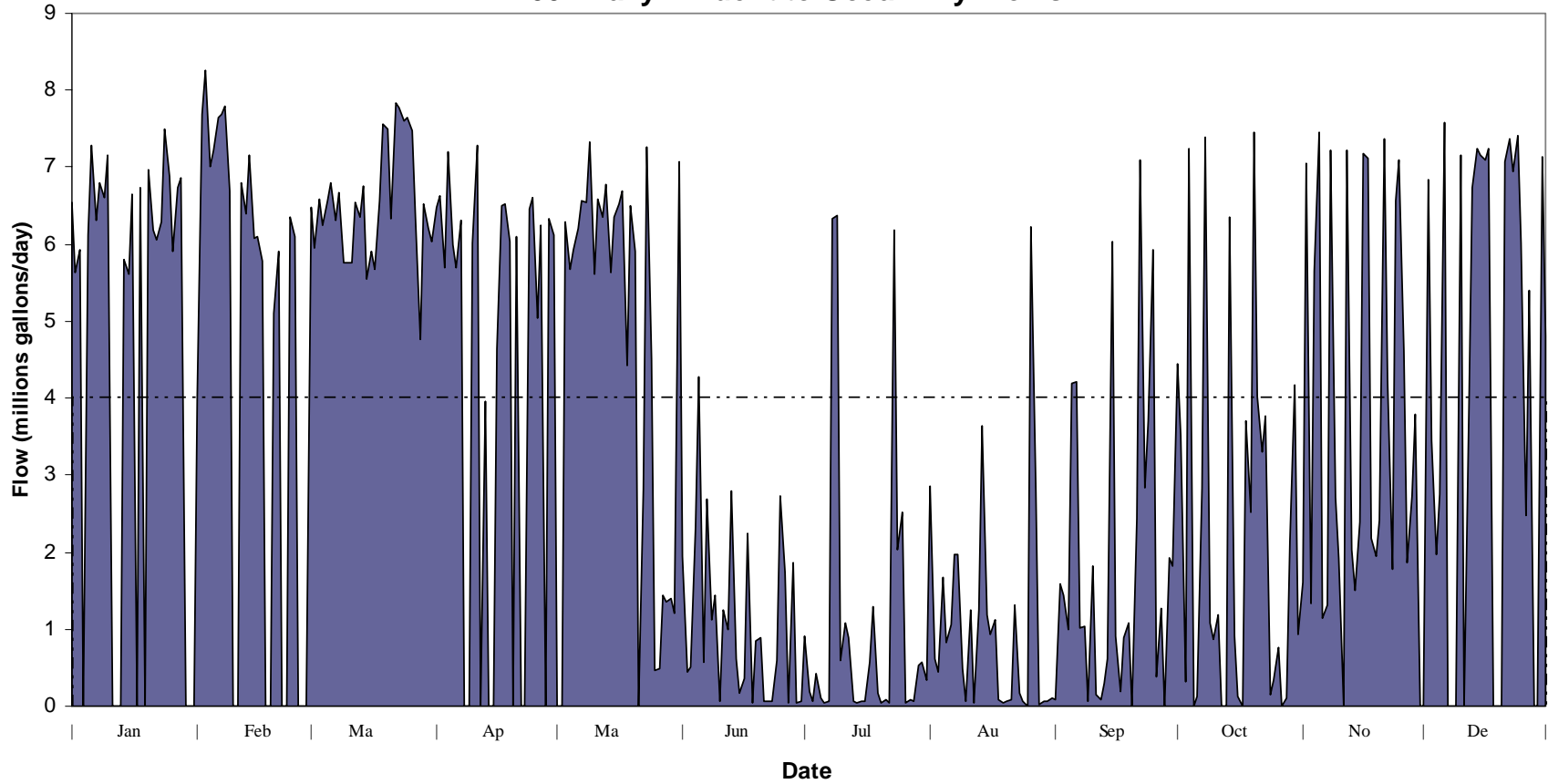


Dry Weather Flows 2007

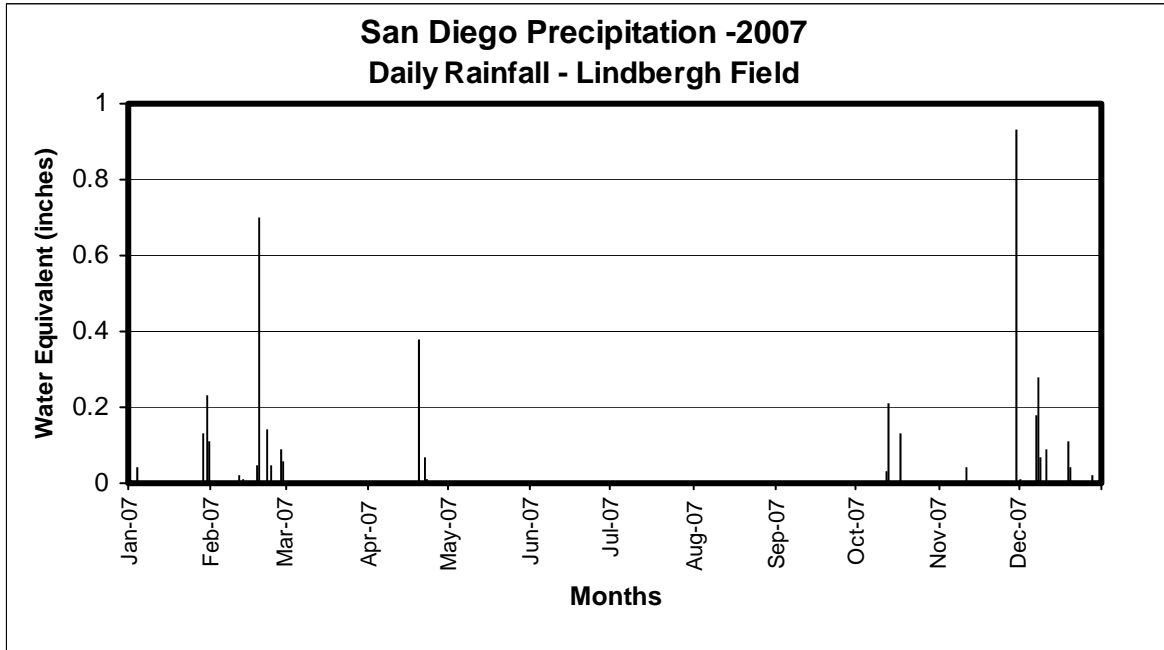
Effluent to Ocean

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	6.55	4.02	6.49	6.47		1.94	0.92	2.85	0.08	4.45	1.6		
2	5.64	7.69	5.96	6.62		0.45	0.2	0.62	1.59	3.52	7.05	6.85	
3	5.93	8.26	6.58	5.69	6.28	0.5	0.06	0.45	1.43	0.31	1.33	3.46	
4		7.01	6.25	7.2	5.67	2.33	0.43	1.67	1	7.25	5.65	1.97	
5	6.12	7.23	6.57	6	5.94	4.28	0.1	0.83	4.19		7.46	2.76	
6	7.29	7.64	6.79	5.69	6.21	0.57	0.05	1.06	4.22	0.13	1.15	7.58	
7	6.32	7.69	6.32	6.31	6.56	2.69	0.06	1.96	1.01	2.83	1.32		
8	6.8	7.8	6.67		6.54	1.13	6.33	1.97	1.04	7.4	7.23		
9	6.61	6.7	5.75		7.32	1.44	6.38	0.49	0.06	1.08	2.72		
10	7.16		5.75	6.01	5.61	0.06	0.6	0.06	1.82	0.87	1.93	7.15	
11			5.75	7.29	6.58	1.24	1.09	1.25	0.14	1.19			
12		6.8	6.54		6.35	0.99	0.89	0.05	0.08		7.22	3.94	
13			6.35	3.95	6.78	2.8	0.07	1.24	0.29		2.04	6.73	
14	5.81	7.16	6.76		5.64	0.62	0.05	3.64	0.61	6.36	1.5	7.24	
15	5.61	6.08	5.54		6.36	0.18	0.07	1.18	6.03	0.91	2.4	7.15	
16	6.66	6.1	5.9	4.64	6.53	0.35	0.07	0.94	0.91	0.13	7.18	7.1	
17		5.79	5.67	6.51	6.69	2.25	0.57	1.13	0.19		7.11	7.25	
18	6.74		6.56	6.52	4.43	0.04	1.29	0.08	0.88	3.71	2.19		
19			7.56	6.03	6.51	0.84	0.16	0.05	1.08	2.53	1.94		
20	6.97	5.11	7.49		5.91	0.88	0.04	0.06		7.46	2.41		
21	6.18	5.91	6.33	6.09		0.07	0.09	0.09	2.44	4.02	7.36	7.07	
22	6.06		7.83		2.82	0.06	0.05	1.31	7.09	3.3	4.24	7.36	
23	6.3		7.77		7.26	0.06	6.19	0.17	2.84	3.77	1.77	6.95	
24	7.49	6.35	7.6	6.46	4.51	0.6	2.03	0.06	3.7	0.14	6.56	7.41	
25	6.89	6.1	7.64	6.6	0.46	2.74	2.53	0.01	5.93	0.33	7.1	6.02	
26	5.9		7.47	5.05	0.48	1.73	0.04	6.22	0.38	0.76	4.62	2.48	
27	6.73		6.35	6.25	1.45	0.04	0.08	2.79	1.27		1.86	5.39	
28	6.86		4.77		1.35	1.86	0.07	0.03		0.11	2.73		
29			6.53	6.34	1.39	0.05	0.52	0.07	1.92	2.14	3.8		
30			6.21	6.11	1.2	0.06	0.58	0.06	1.82	4.17		7.13	
31			6.04		7.08		0.33	0.1		0.94		4.8	
Average	6.48	6.64	6.51	6.09	5.00	1.10	1.03	1.05	1.93	2.69	3.98	5.89	3.77
Minimum	5.61	4.02	4.77	3.95	0.46	0.04	0.04	0.01	0.06	0.11	1.15	1.97	0.01
Maximum	7.49	8.26	7.83	7.29	7.32	4.28	6.38	6.22	7.09	7.46	7.46	7.58	8.26
Total	142.62	119.44	201.79	127.83	139.91	32.85	31.94	32.49	54.04	69.81	111.47	123.79	1188

South Bay Wastewater Reclamation Plant 2007 Daily Effluent to Ocean Dry Flows



B. Rain Days



Total Annual precipitation = 4.23, Maximum =0.93, Trace =0							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
Date	Rain	Date	Rain	Date	Rain	Date	Rain
4-Jan-07	0.04	8-Apr-07	T	20-Sep-07	T	5-Oct-07	T
11-Jan-07	T	9-Apr-07	T	28-Sep-07	T	12-Oct-07	0.03
12-Jan-07	T	12-Apr-07	T			13-Oct-07	0.21
13-Jan-07	T	14-Apr-07	T			17-Oct-07	0.13
17-Jan-07	T	15-Apr-07	T			27-Oct-07	T
19-Jan-07	T	20-Apr-07	0.38			11-Nov-07	0.04
29-Jan-07	0.13	22-Apr-07	0.07			30-Nov-07	0.93
30-Jan-07	0.23	23-Apr-07	0.01			1-Dec-07	0.01
31-Jan-07	0.11	28-Apr-07	T			7-Dec-07	0.18
10-Feb-07	T	1-May-07	T			8-Dec-07	0.28
11-Feb-07	0.02	2-May-07	T			9-Dec-07	0.07
13-Feb-07	0.01	21-May-07	T			11-Dec-07	0.09
18-Feb-07	0.05					18-Dec-07	T
19-Feb-07	0.7					19-Dec-07	0.11
22-Feb-07	0.14					20-Dec-07	0.04
23-Feb-07	0.05					28-Dec-07	0.02
26-Feb-07	T					29-Dec-07	T
27-Feb-07	0.09						
28-Feb-07	0.06						
TOTALS	1.63	0.46		0		2.14	ANNUAL TOTAL
							4.23

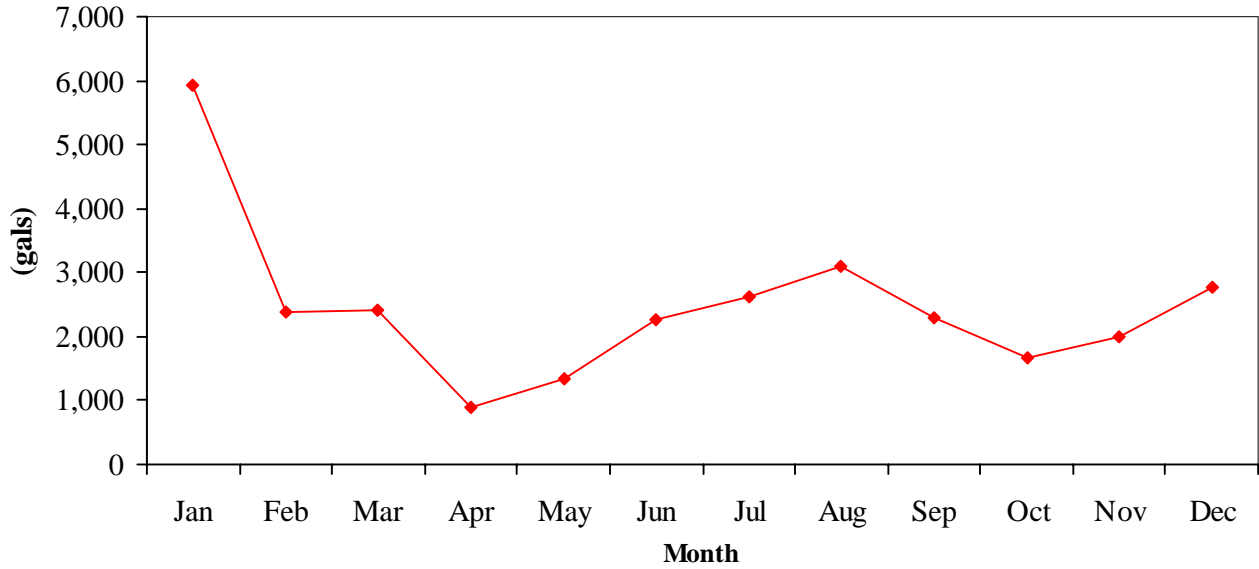
C. Chemical Report

South Bay Water Reclamation Plant - Annual Chemical Usage Report

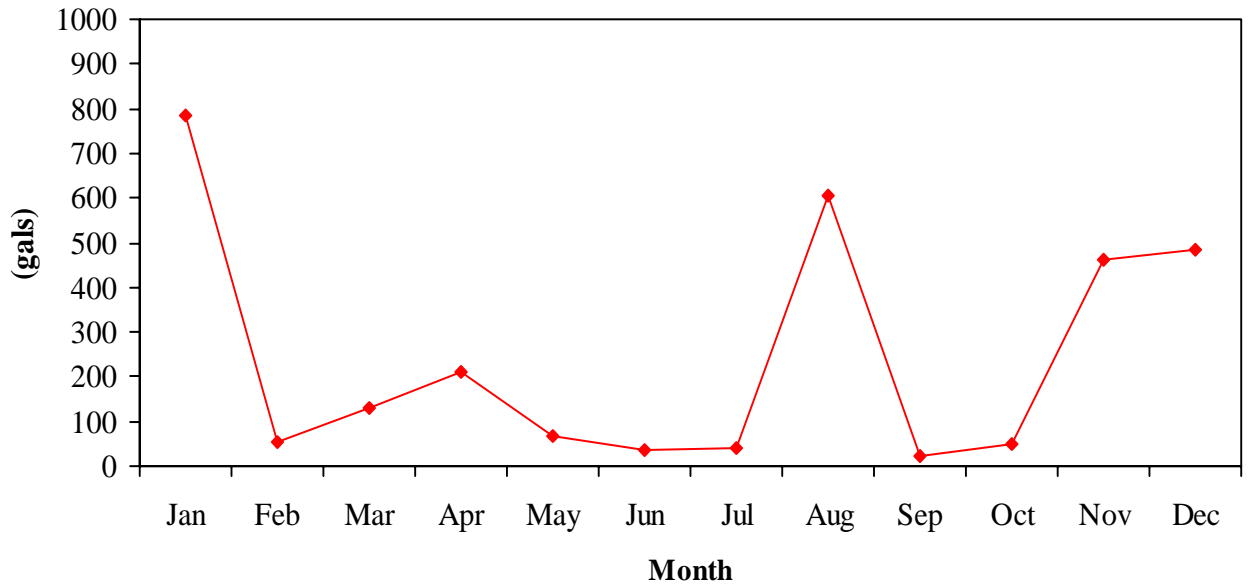
2007

Month	Polymer Catalytic Gallons	Hypochlorite Gallons	Alum Chloride Gallons	Sodium Hydroxide Gallons	Ferric Chloride Gallons
Jan-07	784.81	14,086	0	5,927	0
Feb-07	54.38	13,946	0	2,380	0
Mar-07	131.82	19,319	0	2,410	0
Apr-07	211.2	6,608	0	907	0
May-07	68.47	14,617	546	1,353	0
Jun-07	35.63	28,796	23	2,258	0
Jul-07	42.12	25,087	43	2,636	0
Aug-07	605.67	36,085	21	3,107	0
Sep-07	23.06	26,349	9	2,302	0
Oct-07	47.34	25,333	83	1,661	0
Nov-07	460.78	34,076	250	1,997	0
Dec-07	484.68	29,594	2,473	2,759	0
AVG	245.83	22,825	287.33	2,475	0
SUM	2949.96	273,897	3448	29,697	0

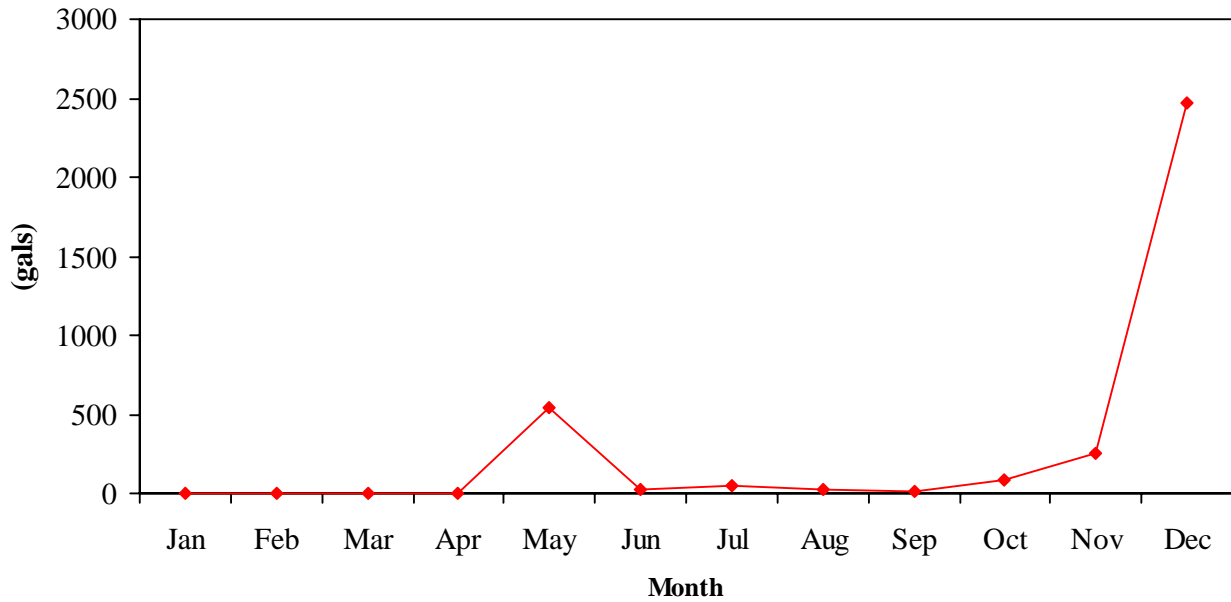
**Caustic
2007 Monthly Chemical Usage**



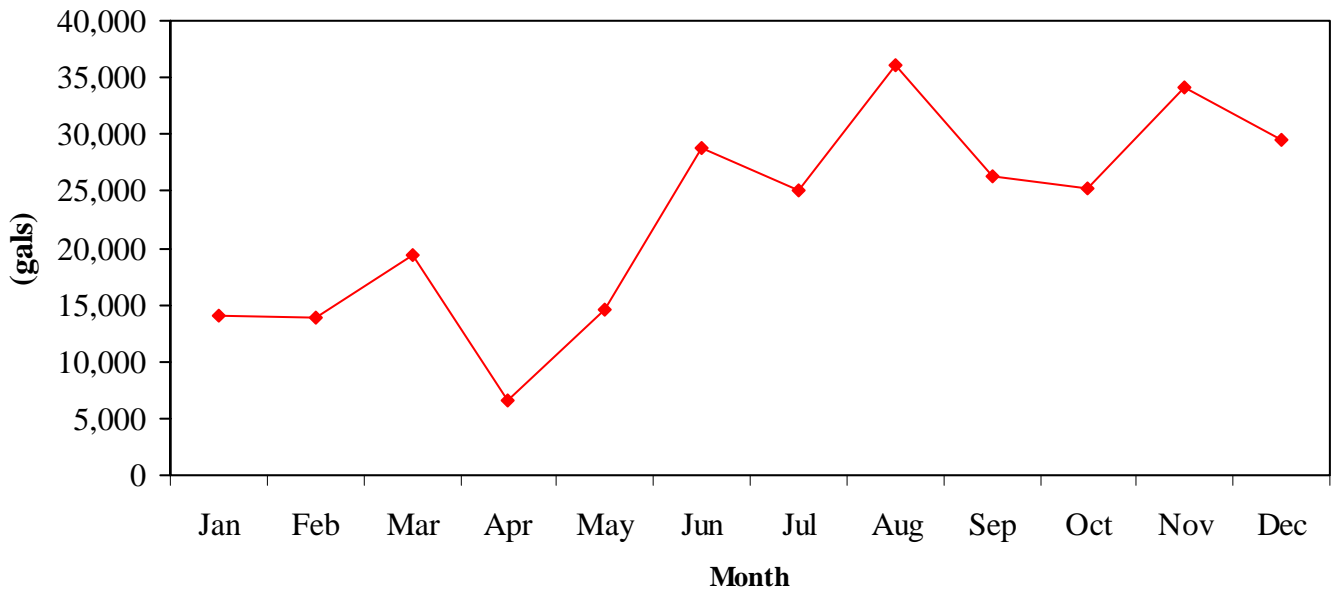
**Polymer E. Catalytic
2007 Monthly Chemical Usage**



Alum
2007 Monthly Chemical Usage



Sodium Hypochlorite
2007 Monthly Chemical Usage



D. Facilities Out of Service Report

2007 SBWRP FACILITIES OUT OF SERVICE REPORT

FACILITIES OOS BY DATE

Bar Screens

	FROM	TO	REASON
Bar Screen 1	5/9/2007	5/14/2007	Replace all spray nozzles on screen
Bar Screen 1	8/2/2007	8/15/2007	Bar screen climber rollers worn out. Remove replace rollers and repair all associated parts that comes with it.
Bar Screen 1	11/14/2007	11/14/2007	Scrapper for rack is worn and almost metal to metal. Repair /replace. May be able to adjusted or reverse.
Bar Screen 2	4/3/2007	10/2/2007	Solenoid operated water valve for the rake sprayers leaking-by. Need ASCO Red Hat pt# 3UL02 avail fm Grainger. This part needs a stock setup.
Bar Screen 2	5/9/2007	5/14/2007	Replace all spray nozzles on screen
Bar Screen 2	8/23/2007	8/23/2007	Tripping out on fail to park alarm, please repair.

Primary Sedimentation

	FROM	TO	REASON
Pri Sed Tank 1	3/22/2007	8/29/2007	Please check solenoid to scum sprayer, no water.
Pri Sed Tank 1	8/9/2007	8/9/2007	Move trash pump to primary tank 1 to dewater tank. Place effluent in primary effluent channel.
Pri Sed Tank 1	10/21/2007	10/25/2007	Shear pin alarm will not reset, need standby Electrician to reset.
Pri Sed Tank 2	1/2/2007	2/21/2007	Set up scaffolding in tank for I&C.
Pri Sed Tank 2	3/22/2007	4/26/2007	Please check solenoid to scum sprayers, no water.
Pri Sed Tank 2	8/9/2007	8/10/2007	Place slide gates in primary influent channel for primary tanks 1 & 2 to isolate influent channel for heavy maintenance. Heavy Maintenance will be here 8/13/07 as per G Webb
Pri Sed Tank 3	3/22/2007	4/26/2007	Please check solenoid to scum sprayers, no water.
Pri Sed Tank 3	10/10/2007	10/10/2007	Tank will not run in DCS, local only. Please repair.
Pri Sed Tank 3	10/10/2007	10/10/2007	Suction troubles, please repair.
Pri Sed Tank 3	10/15/2007	10/24/2007	Sub w.o. for Tank will not run in DCS, local only. Please repair.
Pri Sed Tank 4	3/22/2007	8/28/2007	Please check solenoid to scum sprayers, no water.
Pri Sed Tank 5	3/22/2007	5/3/2007	Please check solenoid to scum sprayers, no water.
Pri Sed Tank 5	5/14/2007	5/14/2007	Troubleshoot and make necessary repair.
Pri Sed Tank 5	5/14/2007	8/8/2007	Troubleshoot and make necessary repair.
Pri Sed Tank 5	8/16/2007	8/29/2007	Solenoid valve for the scumming system not working. Please investigate and repair.

Aeration Basins

	FROM	TO	REASON
Aer Basin 7	3/9/2007	10/18/2007	SBWRP ** #7 Aeration Basin Air Diffusers ** Inspect and reset the diffuser caps.
Aer Basin 7	9/5/2007	9/5/2007	Move trash pump over to AB 8 to empty AB 8 into AB 7.
Aer Basin 7	12/19/2007	2/5/2008	15-FCV-370 air modulating valve will not go into AUTO can control it in DCS manual Please inspect or repair 15 FCV-370 will not go into auto
Aer Basin 8	9/11/2007	9/11/2007	Replace collapsed 6" cam lock hose for the trash pump needed to transfer mixed liquor from aeration basin 8 to 7. Also, attach a cam lock strainer to the suction side of the hose.

Secondary Clarifiers

	FROM	TO	REASON
Sec. Clar. 2	7/18/2007	7/18/2007	Shear Pin failed. Please replace.
Sec. Clar. 2	11/28/2007	12/31/2007	Bolts loose on sludge collector railing by weirs. Please inspect and repair.
Sec. Clar. 3	3/1/2007	3/1/2007	Collector has a bind, troubleshoot and repair as necessary
Sec. Clar. 5	6/4/2007	6/4/2007	Sludge collector has low speed and fails to start alarm. Investigate and make necessary repair.
Sec. Clar. 5	6/5/2007	6/5/2007	Sludge collector has low speed alarm and would not clear. Investigate and make necessary repair.
Sec. Clar. 5	6/6/2007	6/6/2007	Sludge collector has low speed alarm and would not clear. Investigate and make necessary repair.
Sec. Clar. 5	6/27/2007	7/27/2007	Sludge collector has low speed alarm and would not clear. Investigate and make necessary repair.
Sec. Clar. 5	8/21/2007	8/21/2007	Sec sludge collector 5 shear pin failure. Please investigate and repair.
Sec. Clar. 7	12/17/2007	12/18/2007	Flights and drive on sludge collector tripping on HIGH TORQUE as indicated on DCS alarming system. Need I&C technician to troubleshoot and repair as necessary.
Sec. Clar. 8	12/28/2007	12/31/2007	Secondary Sed. tank #8 breaking shear pins. Secondary Sed tank #2 needs motion sensors replaced

Tertiary Filters

	FROM	TO	REASON
Ter. Filter 2	5/21/2007	5/21/2007	FAS inlet valve (25MOV226) has GEN FAIL alarm and would not clear. Investigate and make repair.
Ter. Filter 2	5/22/2007	5/24/2007	Valve has Gen fail alarm and will not clear. Repair as necessary.
Ter. Filter 2	7/19/2007	7/19/2007	Valve 225 shows travel and goes into gen fail. Please inspect and repair.
Ter. Filter 2	8/30/2007	8/30/2007	FLE valve 223 is in gen fail and deviation alarm Can not clear please inspect and repair.
Ter. Filter 2	12/19/2007	2/5/2008	Filter waste backwash valve mov 225 shows gen fail and will not clear Please repair
Ter. Filter 3	7/16/2007	7/16/2007	FLE valve 25FCV233 always goes on GEN Fail alarm and would not clear. Investigate and make necessary repair.
Ter. Filter 3	7/17/2007	10/29/2007	FLE valve 25FCV233 always on GEN Fail alarm. Investigate and make necessary repair.
Ter. Filter 6	2/21/2007	5/21/2007	No.6 Filter ww valve, 25MOV265 has Gen fail alarm and would not clear. Investigate and make necessary repair.

	FROM	TO	REASON
Ter. Filter 7	2/12/2007	2/13/2007	Filter FLE goes into deviation alarm [143 times on 2-8-07] DCS is calling for one position and valve will indicate a position 40 or 50 per cent higher. Then position will start to respond to DCS status. is calling for
Ter. Filter 7	3/13/2007	3/13/2007	FLE gen fail.
Ter. Filter 7	3/21/2007	7/18/2007	Repairs filter valve control. Filter FLE goes into deviation alarm. DCS is calling for one position and the valve is indicating a different position. Then the valve position will respond to the DCS status.
Ter. Filter 7	6/12/2007	6/29/2007	Plumb or connect turbidity sample line coming from the combine filter influent pipe to filter #7's effluent turbidity sample line. See Ernie for details. This will provide an alternate readout of the SE/FI turbidity when the SE source or regular NTU meter starts accumulating solids. It will also cut down on callout OT.
Ter. Filter 7	7/30/2007	7/30/2007	FLE valve gen fails. Does not need reset, needs repaired

FACILITIES OOS BY PROCESS

Bar Screens

	DATES OOS
Bar Screen 1	5/9/2007-5/14/2007;8/2/2007-8/15/2007;11/14/2007-11/14/2007
Bar Screen 2	4/3/2007-10/2/2007;5/9/2007-5/14/2007;8/23/2007-8/23/2007

Primary Sedimentation

	DATES OOS
Pri Sed Tank 1	3/22/2007-8/29/2007;8/9/2007-8/9/2007;10/21/2007-10/25/2007
Pri Sed Tank 2	1/2/2007-2/21/2007;3/22/2007-4/26/2007;8/9/2007-8/10/2007
Pri Sed Tank 3	3/22/2007-4/26/2007;10/10/2007-10/10/2007;10/10/2007-10/10/2007;10/15/2007-10/24/2007
Pri Sed Tank 4	3/22/2007-8/28/2007
Pri Sed Tank 5	3/22/2007-5/3/2007;5/14/2007-5/14/2007;5/14/2007-8/8/2007;8/16/2007-8/29/2007

Aeration Basins

	DATES OOS
Aer Basin 7	3/9/2007-10/18/2007;9/5/2007-9/5/2007;12/19/2007-2/5/2008
Aer Basin 8	9/11/2007-9/11/2007

Secondary Clarifiers

	DATES OOS
Sec. Clar. 2	7/18/2007-7/18/2007;11/28/2007-12/31/2007
Sec. Clar. 3	3/1/2007-3/1/2007
Sec. Clar. 5	6/4/2007-6/4/2007;6/5/2007-6/5/2007;6/6/2007-6/6/2007;6/27/2007-7/27/2007;8/21/2007-8/21/2007
Sec. Clar. 7	12/17/2007-12/18/2007
Sec. Clar. 8	12/28/2007-12/31/2007

Tertiary Filters

	DATES OOS
Ter. Filter 2	5/21/2007-5/21/2007;5/22/2007-5/24/2007;7/19/2007-7/19/2007;8/30/2007-8/30/2007;12/19/2007-2/5/2008
Ter. Filter 3	7/16/2007-7/16/2007;7/17/2007-10/29/2007
Ter. Filter 6	2/21/2007-5/21/2007
Ter. Filter 7	2/12/2007-2/13/2007;3/13/2007-3/13/2007;3/21/2007-7/18/2007;6/12/2007-6/29/2007;7/30/2007-7/30/2007

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